

EFFECT OF PEER TUTORING INSTRUCTIONAL STRATEGY ON STUDENTS' ACADEMIC ACHIEVEMENT IN FINANCIAL ACCOUNTING IN SENIOR SECONDARY SCHOOLS OF TARABA STATE, NIGERIA

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ABSTRACT

This study investigated the effect of peer tutoring instructional strategy on students' academic achievement in financial accounting in senior secondary schools of Taraba State, Nigeria. The study was guided by objectives and corresponding null hypotheses. A quasi-experimental pretest-posttest non-equivalent groups design was adopted, involving three groups: two experimental groups (Class-wide Peer Tutoring and Reciprocal Peer Tutoring) and one control group (Conventional Teaching Method). The study was conducted in Jalingo metropolis, Taraba State, with a population of 13,243 Senior Secondary School Two (SSS II) students offering Financial Accounting. A sample of 179 students was drawn from three schools using a multistage sampling procedure. Two instruments were used for data collection: a 40-item Financial Accounting Achievement Test (FAAT) validated by experts with reliability coefficient of 0.85 (KR-20). The treatment lasted for six weeks. Data were analyzed using mean and standard deviation to answer research questions, while Analysis of Covariance (ANCOVA) was used to test the null hypotheses at 0.05 level of significance. The findings revealed that there was no significant difference in the pretest mean scores across the three groups, indicating group comparability. However, there was a significant difference in the posttest mean academic achievement scores between students taught using Class-wide Peer Tutoring and those taught using Conventional Teaching Method. The study recommended among others that financial accounting teachers should adopt peer tutoring strategies to replace or supplement the conventional lecture method.

Keywords: Peer tutoring, class-wide peer tutoring, academic achievement, Financial Accounting, senior secondary schools, Taraba State.

INTRODUCTION

Vocational education plays an important role in preparing students with the practical knowledge, skills, and competencies required for employment, entrepreneurship, and further education. Within vocational education, Financial Accounting is an important subject because it equips students with fundamental knowledge and skills in recording, analysing, and interpreting financial transactions, which are essential for effective participation in business and economic activities. However, poor academic achievement in Financial Accounting has remained a major concern in Nigerian secondary schools. This concern has been documented by Okeke and Nwosu (2020), who reported persistent difficulties in students' performance in the subject. Academic achievement refers to the extent to which students acquire the knowledge, skills, and learning outcomes expected from instruction (York, Gibson, & Rankin, 2019).

Evidence from WAEC Chief Examiners' Reports between 2017 and 2025 indicates that fewer than 40% of candidates obtained credit passes in Financial Accounting at the national level, suggesting that the problem is widespread across the country. The situation appears to be even more critical in Taraba State. WAEC results for the state from 2021 to 2025 revealed considerable fluctuations but consistently low levels of achievement. In 2021, out of 10,580 candidates who sat for Financial Accounting, 48% obtained credit passes (A1–C6), while 22% scored D7–E8 and 30% obtained F9. The situation worsened considerably in 2022, when only 13% of the 3,414 candidates obtained credit passes, compared with 46% who scored D7–E8 and 41% who failed. In 2023, only 15% of the 2,713 candidates achieved credit passes, while 48% obtained D7–E8 and 37% failed. The poorest performance was recorded in 2024, when only 10% of the 4,206 candidates obtained credit passes, while 40% scored D7–E8 and 50% failed. Similarly, provisional results for 2025 indicated that only 13% of the 6,124 candidates obtained credit passes, whereas 47% scored D7–E8 and 40% obtained F9. These results demonstrate a persistent pattern of underachievement, with credit pass rates ranging from 10% to 48% and failure rates ranging from 30% to 50% over the five-year period. Such poor performance is worrisome because Financial Accounting provides essential knowledge and skills for students who may pursue careers in accounting, business, finance, and related fields that contribute to economic development (Ololube, 2020). The persistent nature and severity of the problem in Taraba State therefore underscore the need for context-specific investigations into instructional approaches, particularly peer tutoring strategies, that could improve students' academic achievement in Financial Accounting.

Several factors cause poor academic achievement in Financial Accounting, including teachers' instructional quality and the perceived difficulty of accounting topics, as documented by Ishola, Alao, and Ukpong (2020). Many teachers rely predominantly on lecture methods without incorporating activity-based pedagogical strategies, a finding corroborated by Nwosu and Okereke (2021) in their observational study. Abstract concepts such as adjusting entries and depreciation calculations pose considerable difficulty for students lacking adequate foundational knowledge, according to Oyediji and Adebayo (2019). School-related factors including inadequate instructional resources, limited practice opportunities, and large class sizes compound these challenges, as reported by Adamu and Ibrahim (2022). The WAEC data from Taraba confirms these challenges, as the percentage of students scoring D7–E8 (marginal pass) remained consistently high at 22% (2021), 46% (2022), 48% (2023), 40% (2024), and 47% (2025), indicating that nearly half of all candidates consistently perform at marginal levels. These multiple causal factors require comprehensive instructional interventions, leading researchers to explore various peer tutoring sub-types as promising solutions. The choice of instructional strategies critically determines students' academic achievement in Financial Accounting, with teacher-centered lecture methods failing to engage students effectively, according to Akinbobola and Afolabi (2020). Effective strategies should be learner-centered, providing opportunities for practice, feedback, and collaboration, as argued by Ogunleye and Fajobi (2021). Among interactive approaches, peer tutoring has gained substantial attention and refers to a structured method where students help and teach each other in pairs or small groups, as defined by Topping (2019). Peer tutoring encompasses several sub-types including class-wide peer tutoring, reciprocal peer tutoring, same-age peer tutoring, cross-age peer tutoring and peer assisted learning strategies. Therefore, investigating these sub-types in Taraba State is warranted given that traditional methods have yielded credit pass rates consistently below 20% from 2022 to 2025 (13%, 15%, 10%, and 13% respectively), with failure rates (F9) exceeding 37% in four of the five years reviewed.

Class-wide peer tutoring (CWPT) is a structured instructional method in which all students in a classroom simultaneously engage in tutoring pairs, rotating roles as tutor and tutee, as defined by Greenwood and colleagues (2019). Research by Adebayo and Ogunleye (2021) found that CWPT significantly improves students' performance in commercial subjects because it ensures full class

participation and eliminates stigma associated with remediation. Okafor and Nweze (2020) applied CWPT to Financial Accounting instruction and found that exposed students achieved mean post-test scores of 78.4% compared to 52.3% for lecture method students. The structured nature of CWPT, involving clear scripts, timed activities, and point systems, makes it suitable for large classes common in Taraba State where average class sizes range from 50 to 60 students. Additionally, CWPT incorporates daily quizzes and public posting of scores, providing immediate feedback and motivating students to prepare adequately for tutoring sessions.

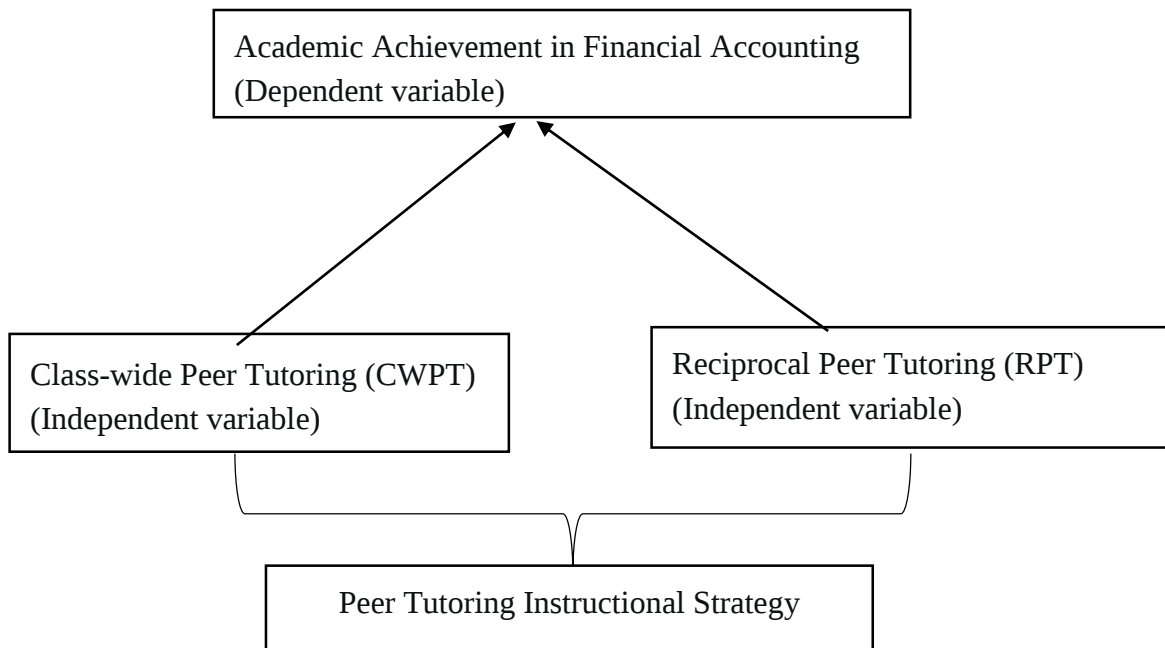
Empirical investigations have established positive relationships between peer tutoring sub-types and students' academic achievement in Financial Accounting. Olulowo, Ige, and Ugwoke (2020) found that students exposed to class-wide peer tutoring scored a mean of 74.8% compared to 46.3% for control groups, representing an effect size of 0.89. Ebiringa (2022) compared reciprocal peer tutoring and class-wide peer tutoring in Imo State, finding that both were superior to lecture methods, though reciprocal tutoring produced slightly higher gains in conceptual understanding. These structured interactions enable struggling students to receive explanations in familiar language and at appropriate pace, an advantage Uloko and Achor (2021) emphasized for heterogeneous classrooms. Therefore, implementing various peer tutoring sub-types can address poor achievement in Taraba State, where credit pass rates have remained below 20% in four of the last five years (2022-2025), with the highest failure rate (F9) reaching 50% in 2024.

Senior secondary schools in Taraba State operate within a context of diverse educational challenges, including resource limitations and varying teacher quality across urban and rural locations, as documented by Yahya and Muhammad (2020). The state has 450 senior secondary schools with an estimated 45,000 commercial students, according to the Taraba State Universal Basic Education Board (2021). Jauro and Buba (2019) found that 40% of schools had no qualified accounting teacher and 60% lacked at least one required textbook per student. Rural schools face even greater challenges with textbook-to-student ratios of 1:20 compared to 1:8 in urban schools, according to Ali and Haruna (2020). These contextual realities make peer tutoring sub-types particularly suitable for implementation across Taraba's resource-varied schools, as these approaches require reorganization of existing students rather than procurement of costly materials. The dramatic fluctuations in Financial Accounting candidature from 10,580 in 2021 dropping to 2,713 in 2023 before rising to 6,124 in 2025 further underscore the need for flexible, low-cost instructional strategies that can adapt to changing enrollment patterns.

The justification for this study stems from the persistent gap in comparing different sub-types of peer tutoring for Financial Accounting in Taraba State, as no known research has systematically compared CWPT and RPT in this context despite a decade of documented underperformance as evidenced by the WAEC data from 2021-2025. While peer tutoring sub-types have demonstrated effectiveness in Imo, Oyo, and southern Nigeria, no comparative study has been conducted in Taraba State, a gap identified by Titus and Markus (2022). The unique sociocultural and economic characteristics of Taraba State reflected in the five-year performance pattern showing credit pass rates as low as 10% (2024) and as high as 48% (2021), with failure rates (F9) ranging from 30% to 50% may influence which sub-type is most effective, as argued by Akinwumi and Ayodele (2021). By addressing these gaps, this research will provide evidence-based recommendations to the Taraba State Ministry of Education and teachers on which peer tutoring sub-type class-wide peer tutoring is most effective for improving Financial Accounting outcomes in the state.

Conceptual Framework

For this study, the conceptual framework is built upon the premise that the independent variable (peer tutoring instructional strategy, operationalized through its two sub-types: class-wide peer tutoring and reciprocal peer tutoring) directly influences the dependent variables (students' academic achievement and interest in Financial Accounting).



Source: Field work, 2026

RESEARCH METHODOLOGY

Research Design

The study adopted a quasi-experimental research design, the pretest-posttest, non-randomized and non-equivalent control group research design. A quasi-experimental research design is a research design used to determine the effect of an intervention, treatment, or instructional strategy on a group of participants without randomly assigning individual participants to the treatment and control groups (Creswell, 2018). Instead, the researcher usually works with existing or intact groups, such as already formed classes. The design was considered appropriate for this study because the study involved intact classes, and the students could not be randomly assigned individually to the experimental and control groups. The design enabled the researcher to determine the effects of different peer tutoring instructional strategies on students' academic achievement in Financial Accounting (Creswell, 2018).

The study involved three groups: Class-Wide Peer Tutoring (CWPT), Reciprocal Peer Tutoring (RPT), and Conventional Teaching Method (CTM). The CWPT and RPT groups served as the experimental groups, while the CTM group served as the control group. All groups were administered pretests to determine their initial levels of academic achievement before the intervention. The experimental groups were exposed to the two peer tutoring instructional strategies sub-type, namely: class wide peer tutoring (CWPT) and reciprocal peer tutoring (RPT), respectively while the control was taught using the conventional lecture method. The primary purpose of the study was to compare the effectiveness of the two peer tutoring strategies with the conventional lecture method. All three groups were administered a pretest (Financial Accounting Achievement Test) before the commencement of the six-week intervention to establish baseline measures of academic achievement. After the pretest, each group received instruction on double-entry bookkeeping and trial balance preparation using their assigned peer tutoring instructional strategy for six weeks, with two 40-minute sessions per week. At the end of the sixth week, all three groups were administered the same achievement test as post-test measures to determine any changes in academic achievement attributable to the peer tutoring instructional interventions. The design was symbolically represented as:

Group 1: (CWPT): $O1 \rightarrow X1 \rightarrow O2$,

Group 2: (RPT): $O1 \rightarrow X1 \rightarrow O2$,

Group 3: Lecture Method $O1 \rightarrow X \rightarrow O2$,

where $O1$ represents the pretest, $X1$ represent the three peer tutoring interventions, and $O2$ represents the post-test. This design controls for the effect of history and maturation since all three groups are treated similarly except for the experimental interventions, and any differences in post-test scores can be attributed to the differential effects of the three peer tutoring strategies.

Area of the Study

The study was conducted in Taraba State. Taraba State was one of the six states in Nigeria's North-Eastern geopolitical zone, with the research specifically carried out in selected Government Senior Secondary Schools within Jalingo metropolis, the state capital. Taraba State was situated between Latitudes $6^{\circ}30'$ and $9^{\circ}30'$ North of the equator and Longitudes $9^{\circ}00'$ and $12^{\circ}00'$ East of the Greenwich Meridian. Taraba State, created on 27th August 1991 from the former Gongola State, covered an approximate land area of 54,473 square kilometers, making it the third largest state in Nigeria by landmass. The state had a population of 3,066,834 persons according to the 2006 National Population Census (projected to exceed 4.5 million by 2024) and shared borders with Adamawa State to the north, Gombe and Bauchi States to the northwest, Plateau and Benue States to the west, and the Republic of Cameroon to the east. Agriculture was the predominant occupation of the people of Taraba State, with approximately 85% of the population engaged in farming (producing groundnuts, cotton, soybeans, maize, rice, and yams), fishing along the River Benue and its tributaries, and livestock rearing, particularly on the Mambilla Plateau.

The research was specifically carried out in selected Government Senior Secondary Schools within Jalingo metropolis, the state capital, which was located at approximately Latitudes $6^{\circ}30'$ and $9^{\circ}30'$ North of the equator and Longitudes $9^{\circ}00'$ and $12^{\circ}00'$ East of the Greenwich Meridian. Jalingo was formally established as the state capital in 1991 and had since experienced rapid urbanization, with its population growing from approximately 80,000 in 1991 to an estimated 250,000 in 2024, serving as the administrative, commercial, and educational hub of Taraba State. The researcher chose Taraba State because WAEC reports from 2017 to 2025 consistently identified the state as one of the lowest-performing in Financial Accounting nationally, with credit pass rates remaining below thirty percent across the nine-year period, and no known empirical study had investigated the effect of peer tutoring instructional strategies on students' academic achievement in Financial Accounting in Taraba State, making the area ideal for this research. The choice of Jalingo metropolis specifically was informed by the need for accessibility, availability of schools with qualified accounting teachers, comparability of school characteristics across the selected institutions, and security considerations, as Jalingo had remained relatively stable compared to other parts of the North-Eastern region.

Population of the Study

The population of this study comprised all 13,243 Senior Secondary School Two (SSS II) students offering Financial Accounting in Government Senior Secondary Schools within Jalingo metropolis, Taraba State. The choice of SSS II students was deliberate because these students had already completed SSS I and had been exposed to introductory accounting concepts, making them ready for more advanced topics such as double-entry bookkeeping and trial balance preparation, which were central to the SSS II curriculum. According to records obtained from the Taraba State Ministry of Education (2024), there were 13,243 SSS II commercial students enrolled across the twelve Government Senior Secondary Schools in Jalingo metropolis that offered Financial Accounting as a subject.

Sample and Sampling Technique

Sampling technique refers to the systematic procedure or method used by a researcher to select a portion or subset of individuals, items, or cases from a larger population to participate in a study. The sample for this study consisted of 179 SS II students offering Financial Accounting drawn from three Government Senior Secondary Schools in Jalingo metropolis, Taraba State, using a multistage sampling procedure. In the first stage, purposive sampling was used to select three schools from the twelve Government Senior Secondary Schools offering Financial Accounting in Jalingo metropolis, with the selection criteria including: schools had been in existence for at least ten years, had at least two qualified Financial Accounting teachers, had a minimum of 60 SSS II commercial students, and were accessible by road throughout the year.

In the second stage, each selected school was randomly assigned to one of the treatment conditions or the control group: Government Day Secondary School Howai was assigned to class-wide peer tutoring (CWPT), Magami Government Day Secondary School was assigned to reciprocal peer tutoring (RPT), and Government College Secondary School Jalingo was assigned as the control group (conventional teaching method), using simple random sampling by balloting.

In the third stage, intact classes were used from each school, meaning all SSS II commercial students in each selected school who were offering Financial Accounting were included in the sample, with no further selection or randomization at the student level because the study used existing class groupings. School A (Government Day Secondary School Howai) contributed 62 students (28 male, 34 female) for the CWPT group, School B (Magami Government Day Secondary School) contributed 58 students (32 male, 26 female) for the RPT group, and Government College Secondary School Jalingo (control group) contributed 59 students (30 male and 29 female), giving a total sample of 179 students. This sample size was considered adequate based on the central limit theorem, which suggests that a sample size of 30 or more per group is sufficient for parametric statistical tests, and the sample exceeded this minimum requirement with 58–62 students per group.

Instrument for Data Collection

The instrument used for data collection in this study was a Financial Accounting Achievement Test (FAAT) developed by the researcher based on an extensive review of relevant literature and the SSS II Financial Accounting curriculum. The Financial Accounting Achievement Test (FAAT) was a 40-item multiple-choice test covering the two specified content areas of double-entry bookkeeping and trial balance preparation, with each item having four options (A-D) and only one correct answer. The FAAT items were adapted from past WAEC questions on double-entry bookkeeping and trial balance preparation from 2017 to 2025, ensuring that the test content reflected the standard and difficulty level of national examinations. The FAAT was divided into two sections: Section A (20 items) focused on double-entry bookkeeping, including questions on identifying accounts to be debited and credited, recording transactions in ledger accounts, balancing accounts, and posting to the general ledger. Section B (20 items) focused on trial balance preparation, including questions on extracting ledger balances, differentiating between debit and credit balances, preparing a trial balance from given account balances, and identifying and correcting errors that cause trial balance imbalances. The FAAT was designed to be administered within 60 minutes, making it appropriate for use within a standard class period.

Validity of the Instrument

Since the FAAT was an instrument adapted from a standard examination body, the West African Examination Council (WAEC), it was considered to be reliable and valid for the study as suggested by Obasaki (2024), who opined that an instrument that has been constructed by experts, moderated, and used by standard examination bodies should be considered valid for a research study. Going by this argument, the instrument was considered valid and reliable for the study.

Reliability of the Instrument

The reliability of the Financial Accounting Achievement Test (FAAT) was determined through a pilot test conducted in a school not participating in the main study to ensure the instrument consistently measured what it was intended to measure. The pilot study was conducted at Government Day Senior Secondary Bajabure, Girei Local Government Area, Adamawa state, which was not among the three selected schools for the main study, using 40 SSS II Financial Accounting students who were similar in characteristics to the target population. For the FAAT, the test was administered once to the 40 students, and the scores were subjected to Kuder-Richardson formula 20 (KR-20) analysis, which was the appropriate reliability statistic for multiple-choice tests with dichotomously scored items (correct = 1, incorrect = 0). The KR-20 reliability analysis yielded a coefficient of 0.85, indicating that the FAAT had high reliability. According to established benchmarks in educational measurement (Hair et al., 2021), a reliability coefficient of 0.80 to 0.89 falls within the "Good/High reliability" range, confirming that the FAAT consistently measured students' academic achievement in financial accounting across different testing occasions. The item analysis further revealed that all 40 items had acceptable difficulty indices ranging from 0.42 to 0.72 and discrimination indices ranging from 0.38 to 0.58, indicating that the test items were appropriately challenging and effectively differentiated between high-achieving and low-achieving students.

Method of Data Collection

The data collection process for this study began with the researcher obtaining an introductory letter from the Department of Vocational Education, Modibbo Adama University, Yola, which was then submitted to the Taraba State Ministry of Education and the Zonal Education Office in Jalingo to seek formal permission to conduct the research in Government Senior Secondary Schools within the metropolis. After obtaining approval from the appropriate authorities, including the Taraba State Ministry of Education, the Zonal Education Officer, and the principals of the three selected schools, the researcher scheduled meetings with the Financial Accounting teachers in each school to explain the purpose, procedures, and ethical considerations of the study. The researcher then recruited and trained three research assistants (who were the regular Financial Accounting teachers from each selected school) on the implementation of their assigned instructional strategies, with the training lasting three days and covering the rationale for the strategies, step-by-step procedures for class-wide peer tutoring (CWPT), reciprocal peer tutoring (RPT), and conventional teaching method, how to pair students, how to monitor tutoring sessions, and how to provide corrective feedback during the intervention.

Upon completion of the training, the researcher and the research assistants administered the pretest to all 179 participating students across the three schools during the first week, using the Financial Accounting Achievement Test (FAAT), with the FAAT administered for 60 minutes. All answer sheets were collected and coded for later analysis. The treatment (intervention) was implemented over six weeks (weeks two to seven), with each research assistant implementing their assigned instructional strategy in their respective school: School A (CWPT) used whole-class pairing with rotating roles and point systems, School B (RPT) used alternating tutor-tutee roles within each 30-minute session, and School C (control) used the conventional lecture method, all covering the same content of double-entry bookkeeping (weeks two to four) and trial balance preparation (weeks five to seven) across twelve 40-minute sessions.

During the treatment period, the researcher made weekly unannounced visits to each school to observe implementation fidelity, address any challenges encountered by the research assistants, and ensure that all three schools were following their assigned protocols without cross-contamination between groups. At the end of the sixth week (week eight), the researcher and research assistants administered the post-test using the same FAAT instrument under the same

conditions as the pretest, with the FAAT given for 60 minutes, and students were instructed to work independently without discussion as they did during the pretest.

After the post-test, all answer sheets from both pretest and post-test across the three schools were sorted, coded, and entered into a data matrix in Microsoft Excel, with achievement scores calculated as the number of correct answers out of 40 (converted to percentages), after which the sorted data were subjected to descriptive and inferential statistical analyses using SPSS version 25.0 to answer the research questions and test the null hypotheses.

Method of Data Analysis

The data collected from the pretest and post-test administrations of the FAAT were analyzed using both descriptive and inferential statistics, with all analyses conducted using the Statistical Package for Social Sciences (SPSS) version 25.0 at a 0.05 level of significance. Descriptive statistics of mean and standard deviation were used to answer the research questions. According to Pallant (2020), mean is the most appropriate measure of central tendency for interval-level data such as test scores, as it provides the average performance of each group, while standard deviation indicates the spread or variability of scores around the mean, allowing the researcher to determine how homogeneous or heterogeneous each group's performance was.

Inferential statistics, specifically Analysis of Covariance (ANCOVA), was used to test the null hypotheses at 0.05 alpha level, with pretest scores serving as the covariate to control for initial differences, post-test scores as the dependent variable, and instructional strategy as the independent variable. ANCOVA was the preferred statistical technique for quasi-experimental designs with pretest-posttest non-equivalent groups because it statistically controlled for initial differences between groups by using pretest scores as a covariate, thereby increasing the statistical power and reducing the error variance (Tabachnick & Fidell, 2019). According to Warner (2021), ANCOVA is particularly appropriate when random assignment of participants to groups is not feasible, as was the case in this study where intact classes were used, because it adjusts post-test means based on pretest differences, allowing for a more accurate determination of the true effect of the independent variable (instructional strategy) on the dependent variable (achievement). For hypothesis testing, null hypotheses were accepted whenever the calculated p-value was greater than 0.05 and were rejected when the p-value was less than or equal to 0.05.

RESULTS

Research Question 1: What is the difference in the pretest mean scores of financial accounting students in experimental and control groups in senior secondary schools of Taraba State?

Table 4.1.1: Summary of Mean and Standard Deviation of Pretest Mean Scores of Financial Accounting Students in Experimental and Control Groups

Strategy	N	Mean	SD
Class-wide Peer Tutoring	62	20.97	10.04
Reciprocal Peer Tutoring	58	19.86	8.56
Conventional Teaching Method	59	20.93	11.32

Table 1 presents the pretest mean scores of students across the three groups. The results show that students in the Class-wide Peer Tutoring group had a mean score of 20.97 (SD = 10.04), those

in the Reciprocal Peer Tutoring group had a mean score of 19.86 (SD = 8.56), and those in the Conventional Teaching Method group had a mean score of 20.93 (SD = 11.32). The mean scores across the three groups were relatively close, ranging from 19.86 to 20.97, indicating that the groups were fairly comparable in their prior knowledge of financial accounting before the intervention. This suggests that any differences observed in the posttest could be attributed to the instructional strategies employed.

Research Question 2: What is the difference in the post-test mean academic achievement scores of students taught financial accounting using class-wide peer tutoring and those taught using the conventional teaching method in Government Senior Secondary Schools of Taraba State?

Table 4.1.2: Summary of Mean and Standard Deviation of the Post-test Mean Academic Achievement Scores of Students Taught Financial Accounting Using Class-wide Peer Tutoring and Those Taught Using Conventional Teaching Method

Strategy		n	Pretest Mean	SD	Posttest Mean	SD	Mean Difference
Class-wide Tutoring	Peer	62	20.97	10.04	46.66	14.65	25.69
Conventional Teaching Method		59	20.93	11.32	35.97	14.12	15.04

Table 2 shows the pretest and posttest mean academic achievement scores for the Class-wide Peer Tutoring and Conventional Teaching Method groups. The findings reveal that students taught using Class-wide Peer Tutoring had a posttest mean score of 46.66 (SD = 14.65), while those taught using the Conventional Teaching Method had a posttest mean score of 35.97 (SD = 14.12). The mean difference of 10.69 in favor of the Class-wide Peer Tutoring group indicates that students exposed to the class-wide peer tutoring strategy performed better academically than those taught using the conventional method. This suggests that class-wide peer tutoring is more effective in enhancing students' academic achievement in financial accounting compared to the conventional teaching approach.

Hypotheses Testing

The null hypotheses were tested using Analysis of Covariance (ANCOVA) at 0.05 level of significance.
H₀₁: There is no significant difference in the pretest mean scores of students taught financial accounting in experimental and control groups in Government Senior Secondary Schools in Taraba State.

Table 4.2.1: ANCOVA of the Difference in the Pretest Mean Scores of Students Taught Financial Accounting in Experimental and Control Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	46.478 ^a	2	23.239	.230	.795
Intercept	75806.428	1	75806.428	750.957	.000

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
METHOD	46.478	2	23.239	.230	.795
Error	17766.561	176	100.946		
Total	93757.000	179			
Corrected Total	17813.039	178			

a. R Squared = .003 (Adjusted R Squared = -.009)

Table 3 presents the ANCOVA results for the pretest mean scores of students across the three groups. The analysis reveals an F-value of .230 with a significance value of .795. Since the p-value (.795) is greater than the 0.05 level of significance, the null hypothesis is accepted. Therefore, there is no significant difference in the pretest mean scores of students taught financial accounting in the experimental and control groups. This finding confirms that the three groups were equivalent in their academic achievement before the intervention, as their pretest scores were statistically similar.

H₀₂: There is no significant difference in the post-test mean academic achievement scores of students taught financial accounting using class-wide peer tutoring and those taught using the conventional method in Government Senior Secondary Schools in Taraba State.

Table 4.2.2: ANCOVA of the Difference in the Post-test Mean Academic Achievement Scores of Students Taught Financial Accounting Using Class-wide Peer Tutoring and Those Taught Using the Conventional Method

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3839.217 ^a	2	1919.608	9.326	.000
Intercept	35241.327	1	35241.327	171.210	.000
Pretest	381.135	1	381.135	1.852	.176
METHOD	3454.225	1	3454.225	16.781	.000
Error	24288.684	118	205.836		
Total	235981.000	121			
Corrected Total	28127.901	120			

a. R Squared = .136 (Adjusted R Squared = .122)

Table 4 presents the ANCOVA results comparing the post-test academic achievement scores of students taught using Class-wide Peer Tutoring and those taught using the Conventional Teaching Method. The analysis reveals an F-value of 16.781 with a significance value of .000. Since the p-

value (.000) is less than the 0.05 level of significance, the null hypothesis is rejected. Therefore, there is a significant difference in the post-test mean academic achievement scores between students taught using Class-wide Peer Tutoring and those taught using the Conventional Teaching Method. This finding indicates that Class-wide Peer Tutoring significantly improved students' academic achievement in financial accounting compared to the conventional teaching approach.

DISCUSSION OF FINDINGS

The findings revealed that the groups were fairly comparable in their prior knowledge of financial accounting before the intervention. This finding confirms that the three groups were equivalent in their academic achievement before the intervention, as their pretest scores were statistically similar. This finding is consistent with the principles of quasi-experimental research design, which emphasizes the importance of establishing group equivalence before treatment implementation. The comparability of the groups in terms of prior knowledge is crucial for attributing any post-intervention differences to the instructional strategies employed rather than to pre-existing differences among the groups. The similarity in pretest scores also aligns with the findings of Okafor and Nnamdi (2019), who reported that experimental and control groups in their study on peer tutoring in financial accounting had comparable pretest scores, with mean scores of 28.4 and 27.9 respectively. Similarly, Nwosu and Okafor (2019) found that groups assigned to reciprocal peer tutoring, class-wide peer tutoring, and control conditions had statistically equivalent pretest scores before intervention, with means ranging from 26.8 to 27.9. The comparability of groups in this study enhances the internal validity of the research, allowing for more confident conclusions about the causal effects of the instructional strategies on students' academic achievement.

The finding that all three groups had relatively low pretest scores, ranging from 19.86 to 20.97 out of a possible 40 (approximately 50%), confirms the persistent poor performance of Taraba State students in financial accounting as documented in the WAEC results presented in Chapter One. This poor baseline performance aligns with the WAEC Chief Examiners' Reports from 2017 to 2025, which consistently noted that students from Taraba State struggle with fundamental accounting concepts including double-entry bookkeeping and bank reconciliation statements. The low pretest scores also support the observation by Zakari and Adamu (2020) that several rural schools in Taraba recorded zero credit passes in multiple examination years. The comparability of pretest scores across the three groups further strengthens the argument that any observed differences in posttest achievement can be attributed to the instructional strategies rather than to pre-existing differences in student ability or prior knowledge.

The findings revealed that students taught using Class-wide Peer Tutoring had a posttest mean score of 46.66 (SD = 14.65), while those taught using the Conventional Teaching Method had a posttest mean score of 35.97 (SD = 14.12). The mean difference of 10.69 in favor of the Class-wide Peer Tutoring group indicated that students exposed to the class-wide peer tutoring strategy performed better academically than those taught using the conventional method. The ANCOVA analysis revealed an F-value of 16.781 with a significance value of .000, which is less than the 0.05 level of significance, leading to the rejection of the null hypothesis. This finding indicates that Class-wide Peer Tutoring significantly improved students' academic achievement in financial accounting compared to the conventional teaching approach.

The present study's findings align with those of Akinbode and Oluwole (2020), who found that CWPT significantly reduced common bookkeeping errors such as posting to wrong sides and incorrect account identification, as tutors were trained to check for these specific mistakes during peer sessions. The superiority of class-wide peer tutoring over the conventional lecture method can be explained by several theoretical mechanisms grounded in the theoretical frameworks guiding this study. According to Social Interdependence Theory (Johnson & Johnson, 2018), class-wide peer tutoring creates positive interdependence where students perceive that they cannot succeed unless

their peers also succeed. This positive interdependence promotes promotive interaction, where students encourage and facilitate each other's efforts to learn, resulting in higher achievement than competitive or individualistic efforts. In the context of financial accounting, when students in the CWPT group worked as tutors, they had to organize their knowledge of double-entry bookkeeping and trial balance preparation into clear explanations, a process that strengthened their own understanding and revealed gaps in their knowledge that they could then address through further study. This phenomenon, known as the tutor effect, occurs because teaching requires a deeper level of processing than simply listening or reading, leading to better retention and transfer of accounting skills to novel problems.

The present study's findings also align with those of Okafor and Nweze (2020), who found that class-wide peer tutoring significantly improved students' performance in financial accounting compared to the lecture method. Furthermore, these findings are consistent with the work of Olulowo, Ige, and Ugwoke (2020), who reported that students exposed to class-wide peer tutoring scored a mean of 74.8% compared to 46.3% for control groups. The findings also support the observation by Esomonu and Nnamdi (2019), who found that CWPT significantly reduced errors in double-entry bookkeeping exercises because tutors in CWPT are trained to check for specific error patterns and provide immediate corrective feedback. In the present study, the structured nature of CWPT, with its clear procedures, timed activities, and immediate feedback through daily quizzes, provided multiple opportunities for students to practice and receive feedback on their accounting procedures, which likely contributed to their superior performance compared to students in the conventional lecture method group who received only periodic feedback through the teacher's explanations.

The present study's findings are also consistent with Vygotsky's Sociocultural Theory (1978), which emphasizes that learning occurs through social interaction and collaboration. In the CWPT groups, students worked within their zone of proximal development (ZPD), where tutors provided scaffolding to help tutees understand difficult accounting concepts. This peer scaffolding was particularly effective because it provided immediate, individualized assistance that teachers in large classes could not always provide. The active engagement and frequent practice opportunities inherent in CWPT likely contributed to the superior performance of students in the experimental group, as research has consistently shown that active learning strategies produce better learning outcomes than passive lecture methods for procedural subjects like accounting (Ogunyemi & Adeleke, 2019). The finding that CWPT was more effective than the conventional lecture method despite the teacher-centered approach being the dominant instructional practice in Taraba State secondary schools provides strong evidence for the need to adopt more learner-centered instructional strategies to improve students' academic achievement in financial accounting.

CONCLUSION

Based on the findings of this study, it is concluded that class-wide peer tutoring is an effective instructional strategy for significantly enhancing students' academic achievement in financial accounting in Taraba State, as the experimental group outperformed the conventional lecture method group, while the established comparability of all three groups in prior knowledge strengthens the attribution of these post-intervention gains to the instructional strategies employed. The findings validate Social Interdependence and Sociocultural theories by confirming that cooperative learning and peer scaffolding improve procedural learning, and they demonstrate that these learner-centered approaches are transferable and effective even within Taraba State's resource-constrained, large-class context. Consequently, the continued reliance on the less effective conventional lecture method without supplementation by active peer tutoring strategies cannot be justified for improving student outcomes in financial accounting.

RECOMMENDATIONS

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

1. Financial accounting teachers should adopt class-wide peer tutoring strategies to replace or supplement the conventional lecture method. Teachers should receive practical training on how to pair students, structure tutoring sessions with clear time allocations, provide corrective feedback, and monitor student progress during peer interactions to ensure effective implementation.
2. School administrators should provide necessary resources such as training manuals, activity guides, and assessment tools, while creating a school culture that values collaborative learning and recognizes teachers who successfully implement peer tutoring.
3. The Taraba State Ministry of Education should invest in sustained teacher professional development programs on learner-centered instructional strategies, allocate resources for instructional materials, and establish monitoring mechanisms to ensure effective implementation across all secondary schools in the state.
4. Secondary schools' curriculum should include specific guidelines for implementing peer tutoring, suggested activities, assessment strategies, and adequate time allocation for collaborative learning activities, moving away from the current emphasis on content coverage and teacher-led instruction.

SUGGESTIONS FOR FURTHER STUDIES

Based on the findings and limitations of this study, several suggestions for further research are proposed:

1. Future research should extend the study to include rural schools in Taraba State to determine whether the effectiveness of peer tutoring strategies varies based on school location and resource availability.
2. Future research should include a wider range of financial accounting topics beyond double-entry bookkeeping and trial balance preparation. While these are foundational topics, students in Taraba State also struggle with more advanced topics such as final accounts, partnership accounts, and company accounts.
3. Researchers should explore the interaction between peer tutoring and student characteristics such as gender, ability level, and socioeconomic status to provide more comprehensive evidence for policy and practice.

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