



Effect of team-teaching approach on students' academic performance in indigenous language in senior secondary schools in Ekiti State, Nigeria

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Abstract

This study examined the effect of the team-teaching approach on students' academic performance in indigenous languages in senior secondary schools in Ekiti State, Nigeria. A quasi-experimental pretest–posttest design was adopted for the study. A total of 150 senior secondary school students were selected through multistage sampling techniques and assigned to experimental and control groups. The experimental group was taught using the team-teaching approach, while the control group was taught using the conventional teaching method. Data were collected using a Yoruba Language Achievement Test and analyzed using the mean, standard deviation, and an independent-samples t-test at the 0.05 level of significance. The findings revealed no significant difference in the pretest mean scores between the two groups, indicating that they were comparable at the onset of the study. Nevertheless, a significant difference was observed in the posttest mean scores, with students exposed to the team-teaching approach outperforming those taught using the conventional method. This suggests that team teaching had a positive effect on students' academic performance in the indigenous language. The study further revealed no significant difference in performance between male and female students exposed to the team-teaching approach, indicating that the strategy is effective regardless of gender. The study concludes that team teaching is a viable and effective instructional approach for improving students' learning outcomes in the indigenous language. It is hence recommended that teachers adopt collaborative teaching strategies in classroom practice, and that educational stakeholders support the integration of team teaching into instructional planning and teacher training programmers.

Keywords: Team Teaching; Academic Performance; Indigenous Language; Collaborative Learning; Secondary Education; Quasi-Experimental Design

1. Introduction

In recent years, growing concern over students' academic performance in secondary schools has prompted renewed attention to how teaching is organized and delivered in the classroom. In many Nigerian schools, including those in Ekiti State, instructional practices continue to rely heavily on the conventional model where a single teacher assumes full responsibility for lesson planning, delivery, and evaluation. While this model has endured over time, it often places considerable demands on individual teachers, especially in subjects that require creativity, interaction, and cultural sensitivity, such as indigenous languages.

Against this backdrop, alternative instructional approaches that encourage collaboration among teachers are gradually gaining attention. One such approach is team teaching, which involves two or more teachers working together in a coordinated manner to plan, deliver, and assess instruction. Rather than functioning independently, teachers in a team-teaching setting share responsibilities and draw on each other's strengths to enhance classroom practice. Roth et al. (2002) and Roth and Tobin (2002) describe this process as one that encourages co-generative dialogue, where teachers

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collectively reflect on their teaching experiences and refine their instructional strategies. In this sense, team teaching not only benefits students but also serves as a platform for continuous professional development.

The value of such collaboration becomes even more apparent when considering the complexities of classroom teaching. Teaching is rarely a straightforward activity; it involves responding to diverse learner needs, managing classroom dynamics, and ensuring that instructional objectives are achieved. When handled by a single teacher, these demands can become overwhelming. However, when teachers work together, there is greater opportunity to diversify instructional strategies, provide immediate feedback, and address individual learning challenges more effectively. As noted by Tobin et al. (2003), the coordinated efforts of co-teachers can enrich classroom interactions, although such coordination requires careful planning and mutual understanding.

The relevance of improved instructional strategies is particularly critical in the teaching of indigenous languages. Indigenous languages are not merely tools of communication; they are repositories of culture, identity, and collective memory. Aturamu (2025) emphasizes that indigenous language education plays a vital role in national development by promoting cultural continuity, cognitive growth, and social integration. Despite this importance, students' performance in indigenous languages at the secondary school level has remained a persistent concern. Factors such as declining interest, limited instructional materials, and the use of less engaging teaching methods have been identified as contributing to this trend.

Furthermore, the culture of teacher isolation in many secondary schools has limited opportunities for professional collaboration. Teachers often work independently, with little structured interaction with colleagues regarding instructional practices or classroom challenges. This lack of collaboration restricts the exchange of ideas and reduces the potential for innovation in teaching. Yet, existing literature suggests that meaningful interaction among teachers is essential for improving instructional quality and fostering professional growth.

In light of these challenges, the adoption of team teaching presents a promising alternative. By combining the expertise of multiple teachers, students are exposed to richer explanations, varied teaching styles, and a more engaging learning environment. This collaborative approach may be particularly beneficial in indigenous language classrooms, where effective teaching often requires cultural sensitivity and interactive methods. It is within this context that the present study examines the effect of team teaching on students' academic performance in indigenous language in senior secondary schools in Ekiti State, Nigeria.

Research Objectives

- The study investigates the effect of the team-teaching approach on students' academic performance in the indigenous language in senior secondary schools in Ekiti State, Nigeria. Specifically, the study seeks to:
- determine the effect of the team-teaching approach on students' academic performance in the indigenous language using pretest and posttest scores in senior secondary schools in Ekiti State;
- compare the academic performance of students exposed to the team-teaching approach with that of students taught using the conventional teaching method after treatment.
- examine whether there is a significant difference between male and female students when exposed to a team-teaching approach.

1.1. Research Questions

- Is there a significant effect of the team-teaching approach on students' academic performance in an indigenous language, as indicated by pretest and posttest scores?
- Is there a significant difference in posttest academic performance between students taught using the team-teaching approach and those taught using the conventional teaching method?
- Is there a significant difference between male and female students' performance scores when they are exposed to a team-teaching approach?

1.2. Research Hypotheses

- There is no significant difference in the pretest mean scores of students taught in an indigenous language using the team-teaching approach compared with the conventional method.
- There is no significant difference in the posttest mean scores of students taught an indigenous language using the team-teaching approach and those taught using the conventional teaching method.
- There is no significant difference in the performance scores of male and female students when they are exposed to a team-teaching approach.

2. Literature Review

2.1. Concept of Team Teaching

The idea that teachers can work together to improve classroom practice is not entirely new; however, its structured application in the form of team teaching has received increasing scholarly attention in recent years (Barahona, 2017; Weinberg et al., 2020). At its core, team teaching represents a shift away from isolated instructional practice toward a more collaborative and interactive approach. Buckley (1999) defines it as a situation in which instructors work deliberately and cooperatively to support students' learning. In practical terms, this involves shared responsibility for planning lessons, delivering instruction, and assessing student outcomes (Barahona, 2017).

While the concept appears straightforward, the degree of collaboration involved can vary significantly. Cruz and Geist (2019) describe what they term "true team teaching" as the highest level of integration, where teachers jointly manage all aspects of instruction. However, not all team-teaching arrangements reach this level. To provide clarity, Friend et al. (2010) proposed six commonly used models, ranging from one teacher leading while another observes, to fully integrated teaching where both instructors actively engage the entire class. These models highlight the flexibility of team teaching and its ability to adapt to different classroom contexts.

What remains consistent across these variations is the need for deliberate collaboration. Effective team teaching does not occur spontaneously; it requires careful planning, clear communication, and mutual respect among teachers. Activities such as co-planning lessons, designing instructional materials, and jointly evaluating student progress are central to the process. Through these interactions, teachers are able to learn from one another and refine their practice in ways that may not occur in isolated teaching environments.

2.2. Team Teaching and Educational Outcomes

A growing body of research suggests that collaborative teaching approaches can have meaningful benefits for both teachers and students. In teacher education, for example, team teaching has been shown to support professional development by encouraging reflection and bridging the gap between theory and practice (Steele et al., 2021). Teachers who engage in collaborative instruction often report increased confidence and a deeper understanding of pedagogical strategies.

From the students' perspective, the presence of multiple teachers can enrich the learning experience. Different teaching styles, perspectives, and explanations can make lessons more engaging and accessible. Studies conducted in primary and secondary education settings indicate that team teaching can improve student participation and comprehension (Mackey et al., 2018; Takacs, 2015). Similarly, in language education contexts, collaborative teaching has been associated with improved language proficiency and subject understanding (Pavón et al., 2015).

Despite these advantages, the application of team teaching in language education, particularly at the pre-university level, remains relatively underexplored (Doiz et al., 2019). This gap is somewhat surprising, given that language learning is inherently interactive and may benefit significantly from collaborative instructional approaches. As such, there is a need for more context-specific studies that examine how team teaching can be effectively applied in language classrooms, especially in indigenous language education.

2.3. Concept and Importance of Indigenous Language

Indigenous languages play a central role in shaping how individuals think, communicate, and relate to their cultural environment. Obadare (2024) notes that individuals naturally process ideas in their native language, underscoring its importance in cognitive development. Similarly, Chumbow (1987, as cited in Wolff, 2008) argues that language should be regarded as a valuable national resource, comparable to other forms of natural wealth.

However, the status of indigenous languages in Nigeria has been affected by changing social attitudes. Olatunji (2020) observes that the widespread preference for English, particularly among educated individuals, has contributed to the marginalization of local languages. This trend has implications not only for cultural identity but also for educational outcomes, as students may struggle to fully engage with content presented in unfamiliar linguistic contexts.

Research has consistently shown that the use of indigenous languages in education can enhance learning by making instruction more relatable and meaningful. Language is deeply intertwined with culture, and indigenous languages provide a natural medium for transmitting cultural values and knowledge (Aturamu et al., 2016). Beyond cultural preservation, their use in education can promote inclusivity and support broader socio-economic development.

2.4. Indigenous Language Education and Contemporary Challenges

Nigeria's linguistic diversity presents both opportunities and challenges for education. While major languages such as Yoruba enjoy wider usage, many indigenous languages face threats due to limited documentation and declining use among younger generations. In the classroom, challenges such as inadequate instructional materials and limited methodological innovation further complicate the teaching of indigenous languages.

Global efforts to preserve indigenous languages have highlighted their importance for cultural sustainability. The United Nations Declaration on the Rights of Indigenous Peoples emphasizes the need to protect and promote linguistic heritage (UNESCO, 2020; Hohmann and Weller, 2018). As Masenya (2024) points out, maintaining indigenous languages is essential for preserving cultural identity in the face of globalization.

Despite these efforts, there remains a noticeable gap in research that connects innovative teaching strategies with indigenous language education. While team teaching has been widely studied in other subject areas, its application in indigenous language classrooms has received limited attention. This study seeks to address this gap by examining how collaborative teaching can influence students' academic performance in this important area.

3. Methodology

The study used a quasi-experimental design to collect data. Quasi-experimental design was proposed by Donald T. Campbell in 1963 to generalize causal inference. The research design was a one-group pretest-posttest design, in which participants completed pretests at the beginning and posttests at the end of each period.

The sample for the study was one hundred and fifty (150) senior secondary school students, which comprises one hundred (100) respondents in the experimental group that were taught using team teaching pedagogy and fifty (50) respondents in the control group that were taught using a conventional method. A simple random sampling technique was used to select the fifteen (15) co-educational secondary schools from the three Senatorial districts in Ekiti State. Five secondary schools were selected from each senatorial district using stratified random sampling, and 10 students were selected from each school using simple random sampling. The selected schools in Ekiti North and Ekiti Central were assigned to the experimental group, while those in Ekiti South were assigned to the conventional group.

An Achievement Test in Yoruba was used as the data collection instrument. The 20-item instrument was designed as multiple-choice objective questions. Five marks were assigned to each question, making a total of 100 marks. The same instrument was used to collect data for the pretest and the posttest. The collected data were analysed using descriptive and inferential statistics. Data gathered through pretest and posttest were graded using a prepared marking guide. Mean and standard deviation were used to answer the research questions, while the t-test of independent samples was used to test the formulated hypotheses at a 0.05 level of significance using SPSS version 26.0

4. Results

- Research Question 1: Is there a significant effect of the team-teaching approach on students' academic performance in the indigenous language, based on pretest and posttest scores?

Table 1 A Responses to the effect of the team-teaching approach on students' academic performance in the indigenous language based on pretest scores

Method	No (%)	Mean	SD
Team Teaching Method	100 (66.7)	10.31	3.769
Conventional Method	50 (33.3)	11.06	3.898

Table 1a presents the mean and standard deviation of the pretest performance scores for students taught an indigenous language using team teaching and conventional methods. It was shown that the pretest score of students taught using team teaching method has a mean of (10.31) and standard deviation of (3.769). Also, the pretest score of students taught using conventional method has a mean of (11.06) and standard deviation of (3.898). This clearly showed that the mean difference of the two experimental groups was (0.75) which is very marginal. This established the homogeneity of the groups.

Table 1 B Responses to the effect of the team-teaching approach on students' academic performance in the indigenous language based on posttest scores

Method	No (%)	Mean	SD
Team Teaching Method	100 (66.7)	22.70	3.546
Conventional Method	50 (33.3)	16.98	5.816

Table 1b presents the mean and standard deviation of the posttest performance scores for students taught an indigenous language using team teaching and conventional methods. It was shown that the posttest score of students taught using team teaching method has a mean of (22.69) and standard deviation of (3.546). Also, the posttest score of students taught using conventional method has a mean of (16.98) and standard deviation of (5.816). This evidently showed that the mean difference of the two experimental groups was (5.72). By implication, students taught using the team-teaching method performed better than those taught using the conventional method.

Research Question 2: Is there a significant difference in the posttest academic performance of students taught using the team-teaching approach and those taught using the conventional teaching method?

Table 2 Responses to the difference in the mean performance score of students taught Indigenous language using the conventional and the non-conventional method

Method	No (%)	Mean	SD
Team teaching Method	100 (66.7)	33.00	7.315
Conventional Method	50 (33.3)	31.28	9.618

Table 2 presents the mean and standard deviation of the performance scores for students taught Indigenous language using team teaching and conventional methods. It was shown that the score of students taught using team teaching method has a mean of (33.00) and standard deviation of (7.315). Also, the mean performance score of students taught conventional method has a mean of (31.28) and standard deviation of (9.618). This implies that students in the conventional group performed worse than those in the experimental group. Hence, students taught using the team-teaching method performed better than those taught using the conventional method.

4.1. Research Question

Is there a significant difference between male and female students' performance scores when they are exposed to a team-teaching approach?

Table 3 Responses to the significant difference between male and female students' performance scores when they are exposed to a team-teaching approach

Gender	No (%)	Mean	SD
Male	45 (45.0)	58.10	3.311
Female	55 (55.0)	58.74	2.784

Table 3 presents the mean and standard deviation of the performance scores for male and female students taught an indigenous language using team-teaching pedagogy. It was shown that the score for male students taught using team-teaching pedagogy has a mean of 58.10 and a standard deviation of 3.311. Also, the mean performance score for female students taught using team teaching pedagogy is 58.74, with a standard deviation of 2.784. This clearly showed that the mean difference of the two groups was (0.64), while the measure of variability had a difference of (0.527). This implies that the average performance of male students in the experimental group was marginally lower than that of female students in the same group. Hence, there is a marginal difference in the performance of male and female students taught an indigenous language using a team-teaching pedagogy, in favour of female students.

4.2. Hypotheses Testing

Hypothesis 1: There is no significant difference in the pretest mean scores of students taught an indigenous language using the team-teaching approach and the conventional method.

Table 4 t-test analysis of the significant difference between the pretest mean scores of students taught an indigenous language using the team-teaching approach and the conventional method

Method	N	Mean	SD	DF	T(CAL)	T(TAB)	Remark
Team teaching	100	10.31	3.769	148	1.29	1.96	NS
Conventional	50	11.06	3.898				

P<0.05 level of significance, NS = Not Significant

Table 4 revealed a difference in the pretest mean scores of students taught an indigenous language using the team-teaching approach compared with the conventional method. It was shown that the mean score for students exposed to team-teaching pedagogy (10.31) was lower than that for students taught using the conventional method (11.06), with a mean difference of 0.75. The measure of variability (standard deviation) has a difference of (0.129). The t-test analysis shows that the calculated value (1.29) is less than the table value (1.96) at the 0.05 level of significance. This implies that there is no significant difference in the pretest mean scores of students taught an indigenous language using the team-teaching approach compared with the conventional method. Hence, the null hypothesis is upheld.

4.3. Hypothesis

There is no significant difference in the posttest mean scores of students taught an indigenous language using the team-teaching approach and those taught using the conventional teaching method.

Table 5 T-test analysis of the significant difference in the competence of the students' comprehension scores during their posttest in the English language

Method	N	Mean	SD	DF	T(CAL)	T(TAB)	Remark
Team teaching	100	22.70	3.546	148	2.47	1.96	S
Conventional	50	16.98	5.816				

P<0.05 level of significance, S = Significant

Table 5 revealed differences in the posttest mean scores of students taught in indigenous languages using the team-teaching approach and those taught using the conventional teaching method. It was shown that the mean score of students exposed to team-teaching pedagogy (22.70) was higher than that of students taught the indigenous language using a conventional method (16.98), with a mean difference of 5.72. The measure of variability (standard deviation) is 2.27. The t-test analysis shows that the calculated value (2.47) is higher than the table value (1.96) at the 0.05 level of significance. This implies a significant difference in the posttest mean scores of students taught in an indigenous language using the team-teaching approach and those taught using the conventional teaching method. Hence, the null hypothesis is not upheld.

4.4. Hypothesis 3

There is no significant difference between male and female students' performance scores when they are exposed to a team-teaching approach.

Table 6 T-test analysis of the difference between male and female students' performance scores when they were exposed to the team-teaching approach

METHOD	N	MEAN	SD	DF	T(CAL)	T(TAB)	REMARK
Male	45	58.10	3.311	98	1.82	1.96	NS
Female	55	58.74	2.784				

P<0.05 level of significance, NS = Not Significant

Table 6 presents the mean and standard deviation of the difference in performance scores between male and female students when they were exposed to the team-teaching approach. It was shown that the score of male students taught an indigenous language using team-teaching pedagogy has a mean of 58.10 and a standard deviation of 3.311. Also, the mean performance score for female students taught an indigenous language using team-teaching pedagogy is 58.74, with a standard deviation of 2.784. This clearly showed that the mean difference of the two groups was (0.64), which was marginal, while the measure of variability had a difference of (0.527). The t-test analysis shows that the calculated value (1.82) is less than the table value (1.96) at the 0.05 level of significance. This implies that there is no significant difference in the performance scores of male and female students when exposed to team-teaching pedagogy. Hence, the null hypothesis is upheld.

5. Discussion of Findings

The findings of this study provide useful insights into how instructional approaches can shape students' learning outcomes in indigenous language classrooms. At the outset, the results showed that there was no significant difference between the pretest scores of students in the experimental and control groups. This suggests that both groups began the study at a relatively similar level of proficiency, thereby providing a fair basis for assessing the impact of the instructional intervention. In practical terms, this initial similarity strengthens the credibility of the subsequent findings, as any observed differences can reasonably be linked to the teaching approach rather than pre-existing disparities.

Following the intervention, a clear pattern emerged in the posttest results. Students who were taught using the team-teaching approach performed noticeably better than those who were exposed to the conventional method. This improvement was not only evident in the mean scores but was also statistically significant. Such an outcome points to the potential value of collaborative teaching in enhancing students' understanding and retention of indigenous language content.

One possible explanation for this improvement lies in the nature of team teaching itself. When multiple teachers are involved in instruction, students benefit from a wider range of explanations, examples, and teaching styles. This diversity can make learning more engaging and accessible, particularly in subjects like indigenous language that often require contextual and cultural interpretation. Roth et al. (2004) suggest that team teaching expands access to both social and instructional resources, creating a richer learning environment. In this study, it appears that such an environment contributed to improved academic performance.

The findings also align with the broader literature on collaborative teaching, which emphasizes its role in promoting active learning and classroom engagement (Barahona, 2017; Weinberg et al., 2020). The use of different team teaching models, as outlined by Friend et al. (2010), may have introduced greater flexibility in instructional delivery, allowing teachers to address students' needs more effectively. For instance, approaches such as parallel teaching or station teaching can create opportunities for more individualized attention, which is often difficult to achieve in a single-teacher classroom.

In relation to gender, the study found no significant difference in the performance of male and female students exposed to the team-teaching approach. Although female students recorded slightly higher mean scores, the difference was minimal and not statistically significant. This suggests that the benefits of team teaching are not limited to a particular gender group but are broadly applicable across the student population. This observation is consistent with existing studies that highlight the inclusive nature of collaborative learning environments (Weinberg et al., 2020; King-Sears, 2022).

Overall, the findings reinforce the idea that instructional innovation can play a critical role in improving learning outcomes, particularly in areas that have traditionally received less attention, such as indigenous language education. Given the cultural and cognitive importance of indigenous languages (Aturamu, 2025; Aturamu et al., 2016), the adoption of more engaging and collaborative teaching approaches may be an important step toward revitalizing interest and improving performance in this subject area.

6. Conclusion

This study explored the effect of the team-teaching approach on students' academic performance in the indigenous language in senior secondary schools in Ekiti State, Nigeria. The findings provided useful insights into how classroom language practices can affect students' learning outcomes in a multilingual educational environment. The pretest results

indicated that students in both the experimental and control groups had comparable levels of indigenous language knowledge before the instructional intervention. This similarity in performance suggests that the groups were relatively homogeneous at the beginning of the study. After the instructional period, noticeable differences emerged between the two groups. Students taught using the team-teaching approach demonstrated a considerably higher level of comprehension and retention than those taught through the conventional method. The analysis of gender differences further revealed that although female students recorded slightly higher average scores than male students, the difference was not statistically significant. This indicates that the instructional approach benefits students irrespective of gender.

Recommendations

The study recommends that indigenous language teachers incorporate team teaching strategically during instruction, and that teacher training programmers include instruction on effective bilingual teaching strategies. Also, curriculum planners and education authorities should recognize the pedagogical value of indigenous languages in classroom instruction.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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