

USING RECIPROCAL TEACHING TO ENHANCE LEARNER ENGAGEMENT AND ACHIEVEMENT IN BLENDED CONTENT-AREA READING IN BENUE STATE, NIGERIA

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ABSTRACT

This study investigated the effects of the utilization of the reciprocal teaching strategy on the interest and performance of Senior Secondary Two (SS2) learners in Government in Benue State, Nigeria. A quasi-experimental pre-test, post-test design was employed, with a sample of 61 learners from two intact classes selected via purposive sampling. The participants were assigned to two experimental groups: one was taught using reciprocal teaching in a face-to-face classroom, while the other experienced reciprocal teaching in a blended learning environment (combining face-to-face and online instruction). Data were collected using the Learners' Interest in Government Rating Scale (SIGRS; $\alpha = 0.79$) and the Learners' Performance in Government Test (SPGT; $\alpha = 0.87$). Data on each research question were analyzed using mean and standard deviation and hypotheses tested using Analysis of Covariance (ANCOVA) at a 0.05 significance level. The results revealed that the blended learning group demonstrated a significantly

*greater increase in interest (mean gain = 25.49) compared to the face-to-face group (mean gain = 13.59), $F(1, 58) = 44.66$, $*p* = .000$. Similarly, the blended learning group showed significantly higher performance gains (mean gain = 25.17) than the face-to-face group (mean gain = 17.69), $F(1, 58) = 57.327$, $*p* = .000$. Furthermore, no significant gender-based differences were found in either interest ($*p* = .382$) or performance ($*p* = .098$) within the blended learning classroom. Based on these findings, it is recommended that educators adopt reciprocal teaching, particularly within a blended learning framework, to enhance learner outcomes. Additionally, the Ministry of Education should prioritize providing adequate information and communication technology facilities in schools to support the implementation of effective blended learning.*

Key Words: Blended Learning Classroom, Content Area Interest, Performance, Reciprocal Teaching Strategy.

INTRODUCTION

The adoption of innovative pedagogical strategies and delivery methods is essential for modern education, both in language and content-area subjects. This study examined the impact of utilization of the reciprocal teaching strategy on learners' interest and academic performance in Government, a core subject in Nigerian senior secondary schools.

The research focused on implementing this strategy across different learning environments: a conventional face-to-face classroom and a blended learning model. Drawing on the definitions of Ganiyu and Ojewale (2018) and Chinwendu and Olele (2020), blended learning is understood as a hybrid approach that combines traditional face-to-face interaction with e-learning. This model is predicated on the optimal integration of oral and online written communication, leveraging the strengths of each to create a powerful and purposeful educational experience.

Reciprocal Teaching Strategy is a cooperative, learner-centered reading comprehension strategy where small groups of learners apply four distinct skills—predicting, questioning, clarifying, and summarizing—to a given text (Lewis, 2016). The teacher acts as a facilitator, guiding learners as they navigate this process.

The four skills of the Reciprocal Teaching Strategy function as an integrated cycle. Predicting involves using prior knowledge and

textual clues to hypothesize about the content's direction. This establishes a purpose for reading, stimulates group discussion, and activates learners' existing knowledge, which aids in self-monitoring their comprehension (Lewis, 2016).

Questioning requires learners to generate questions about the text. This practice, whether to seek answers, make inferences, or prepare for assessment, strengthens their ability to construct meaning by engaging deeply with both implicit and explicit content (Niklasch, 2019).

Clarifying is triggered by confusion regarding the text or its interpretation. Group members identify and discuss unfamiliar words, concepts, or phrases using peers, the teacher, dictionaries, or technology to ensure mutual understanding (Lewis, 2016).

Summarizing challenges the group to produce a concise synopsis of the text's main ideas and crucial details. This final skill serves as a review and assessment tool, demonstrating whether the content has been comprehensively understood (Lewis, 2016).

The utilization of the Reciprocal Teaching Strategy in both blended and face-to-face classrooms holds significant potential for enhancing the instruction of Government, a subject critical to the educational development of individuals and society.

Government is a senior secondary school subject focused on the study of state agencies, political

institutions, and dynamics (Okeke, 2013). Its curriculum encompasses fundamental concepts, the history of Nigerian government, principles of governance, political institutions, and the impact of globalization.

The inclusion of Government in the Nigerian secondary school curriculum is designed to achieve several vital objectives. As outlined by Okunloye (2009), these objectives include: enhancing learners' civic education; fostering an understanding of their role and responsibilities as citizens in nation-building; and cultivating democratic values and attitudes for participation in Nigeria's political system.

Furthermore, the study of Government aims to provide learners with knowledge of international relations and Nigeria's role within the global system, while also promoting national integration by instilling attitudes of tolerance, good neighbourliness, peaceful coexistence, and patriotism. Given these ambitious goals, innovative pedagogical strategies like Reciprocal Teaching Strategy are essential to effectively engage learners with this content and achieve these foundational civic outcomes.

The aforementioned objectives of the Government curriculum underscore its critical role in national development. The realization of these objectives—which include fostering informed citizenship and democratic values—is fundamental to the political, social, and socio-cultural advancement of Nigeria (Okeke, 2013).

Consequently, employing effective pedagogical strategies, such as reciprocal teaching, and optimizing instructional delivery modes are essential to cultivating a generation capable of critical thinking, mutual respect, and active, responsible citizenship.

An effective study of Government equips learners with respect for the dignity of labour, an appreciation for national values, and the disposition to contribute meaningfully to society, thereby directly fostering national development.

Conversely, the current prevalence of political strife, corruption, and extremism in Nigeria and other African nations may be partially attributable to ineffective pedagogical approaches in teaching these crucial civic subjects.

Extant research demonstrates that the Reciprocal Teaching Strategy effectively improves learner interest and academic performance in content-area subjects such as Mathematics (Ginga, Mohammed & Usman, 2019) and Physics (Zaman, 2019) within traditional classroom settings.

Furthermore, blended learning—an instructional model that integrates self-paced e-learning, live virtual sessions, and face-to-face instruction (Jonathan, 2014)—has itself been shown to enhance learner interest and performance, often outperforming purely face-to-face models (Chukwuemeka, Olele & Abraham, 2020; Hall, Cohen, Vue & Ganley, 2015; Huang & Hong, 2016).

A significant gap however exists in the confluence of these two approaches. There is a paucity of empirical evidence on the effect of reciprocal teaching specifically within a blended learning environment.

While some studies have reported mixed or slightly lower outcomes for blended learning in certain contexts (Najafi, Evans & Federico, 2014; Siko, 2014), these findings are not specific to the subject of Government. Moreover, it may be culturally inappropriate to generalize such results to the educational context of Benue State, Nigeria.

This study was, therefore, necessary to investigate the specific impact of employing reciprocal teaching within a blended learning framework on learners' interest and performance in Government, addressing a clear gap in the literature and providing contextually relevant findings.

Gender, referring to the socio-culturally constructed differences in roles, behaviors, and expectations between males and females, is a potential factor in learners' academic interest and performance. These differences may lead to variations in expectations, self-evaluation, and outcomes on academic tasks (Amadi & Offorma, 2019).

Consequently, this study investigated the moderating effect of gender on learners' interest and performance in Government when taught using the reciprocal teaching strategy in both face-to-face and blended learning environments.

Existing research on gender in blended learning presents mixed findings. Some studies report no significant gender-based differences in learner interest (Chukwuemeka, Olele & Abraham, 2020; Ibenegbu, Nzewi & Aniaku, 2018), while others indicate a female preference for the blended model (Zhang, Dang, Amer & Trainor, 2018).

In performance, male learners have been shown to outperform females in science-related content areas like Biology (Eseine-Aloja, 2021) and Computer Studies (Adigun et al., 2015), though no significant gender gaps were found in Physics (Adepeko, 2018) or Mathematics (Diovu, Ogonna & Eze, 2021) within blended settings.

Critically, there is a notable absence of empirical evidence regarding gender effects in the specific context of Government education. This paucity of research underscores the necessity of this investigation. This study, therefore, aimed to provide crucial insights into how gender influences interest and performance in Government within both face-to-face and blended learning classrooms in Benue State, Nigeria.

STATEMENT OF THE PROBLEM

Learner interest and academic performance in Government have remained persistently low, as evidenced by poor results in internal, regional, and national examinations. The West African Examinations Council's Chief Examiners' Report (WAEC, 2020) specifically laments learners' avoidance of historically-oriented questions, demonstrating a lack of interest and/or inadequate

preparation, alongside poor communication skills that hinder their ability to articulate points effectively.

This trend underscores a critical need for innovative and effective pedagogical strategies to revitalize the teaching and learning of Government. Consequently, this study investigated the effects of the utilization of Reciprocal Teaching Strategy on the interest and performance of male and female learners in Government within both blended learning and traditional face-to-face classrooms in Benue State, Nigeria.

RESEARCH OBJECTIVES

The objectives of the study were to:

- i. ascertain learners' interest in Government when exposed to reciprocal teaching strategy in face-to-face and blended learning classrooms;
- ii. investigate learners' performance in Government when exposed to reciprocal teaching strategy in face-to-face and blended learning classrooms;
- iii. examine the effect of gender on learners' interest in Government when exposed to reciprocal teaching strategy in a blended learning classroom; and
- iv. investigate the effect of gender on learners' performance in Government when exposed to reciprocal teaching strategy in a blended learning classroom.

RESEARCH QUESTIONS

1. What is the difference between the mean interest in Government rating scores of learners exposed to reciprocal teaching strategy in face-to-face classroom and those in blended learning classroom?
2. What is the difference between the mean performance scores of learners in Government when exposed to reciprocal teaching strategy in face-to-face classroom and blended learning classroom?
3. What is the difference between male and female learners' mean interest in Government rating scores when exposed to reciprocal teaching strategy in blended learning classroom?
4. What is the difference between male and female learners' mean performance scores in Government when exposed to reciprocal teaching strategy in blended learning classroom?

HYPOTHESES

1. There is no significant difference between the mean interest in Government rating scores of learners exposed to reciprocal teaching strategy in face-to-face classroom and those in blended learning classroom.
2. There is no significant difference between the mean performance scores of learners in Government when exposed to reciprocal teaching strategy in face-to-face and blended learning classrooms.
3. There is no significant difference between male and female learners' mean interest in

Government rating scores when exposed to reciprocal teaching strategy in blended learning classroom.

4. There is no significant difference between male and female learners' performance scores in Government when exposed to reciprocal teaching strategy in blended learning classroom.

THEORETICAL FRAMEWORK

This study was guided by Vygotsky's (1978) Social Development Theory. This theory posits that social interaction is fundamental to cognitive development, positing that learning occurs within the Zone of Proximal Development —the difference between what a learner can do independently and what they can achieve with guidance from a More Knowledgeable Other who could be a teacher, peer, or even technology.

This theoretical framework was highly applicable to the present study. The Reciprocal Teaching Strategy is inherently social and collaborative, creating a structured environment for peers to act as More Knowledgeable Other for one another. Furthermore, the blended learning environment directly facilitated the social interactions Vygotsky deemed essential.

The face-to-face component allowed for direct, synchronous collaboration, while the online platform extends these interactions asynchronously, enabling meaningful discussion and knowledge construction beyond the constraints of the physical classroom. It was

hypothesized that this enhanced, multi-modal social learning environment would significantly improve learners' interest and academic performance in Government.

RESEARCH METHODOLOGY

This section focuses on the research design, target population, sampling techniques and sample size as well as on explanation of the reciprocal teaching strategy intervention. The section includes also validity and reliability of research instruments and data analysis process.

RESEARCH DESIGN

This study adopted a quasi-experimental pre-test, post-test, non-equivalent group design. This design was appropriate as intact classes were used without random assignment of participants to groups.

POPULATION AND SAMPLE

The study population comprised 1,561 Senior Secondary 2 (SS2) learners from 27 government grant-aided secondary schools in Gboko Local Government Area, Benue State, Nigeria. A sample of 61 SS2 learners was selected from two schools using a purposive sampling technique. One co-educational school was selected for its functional information and communication technology (ICT) facilities, and a second was selected without such facilities.

EXPERIMENTAL PROCEDURE AND GROUPS

The school with ICT facilities constituted the experimental group, which received instruction via a blended learning model using Google Classroom. The school without ICT facilities constituted the comparison group, which received instruction via the traditional face-to-face mode. Both groups were taught using the reciprocal teaching strategy.

INTERVENTION

A six-lesson intervention was developed on the topics of Igbo, Yoruba, and Hausa/Fulani pre-colonial administrations, as well as British indirect rule and French policies of assimilation and association. Detailed lesson plans with aligned activities and teaching aids were created to ensure the consistent application of the reciprocal teaching strategy in both instructional modes.

The same topics, objectives, content, and activities were covered in both groups to ensure comparability and avoid bias. The treatment period lasted six weeks (weeks 2-7 of the procedure).

INSTRUMENTS FOR DATA COLLECTION

Two researcher-designed instruments were used:

- **Learners' Interest in Government Rating Scale (SIGRS):** This 22-item instrument used a 4-point Likert scale to measure learners' interest. Positively worded items were scored from Strongly Agree (4) to Strongly Disagree

(1), while negatively worded items were reverse-scored.

- **Learners' Performance in Government Test (SPGT):** This test consisted of three subjective essay questions covering pre-colonial and colonial administration, with a total possible score of 60 marks. A standardized marking guide was developed for consistent scoring.

VALIDITY AND RELIABILITY

The data collection instruments were validated by two experts in test measurement and one senior secondary Government teacher. Reliability was established through pilot testing. The SIGRS yielded a high internal consistency reliability coefficient (Cronbach's alpha = 0.82). The SPGT demonstrated strong inter-rater reliability (Spearman rank order coefficient = 0.76).

DATA COLLECTION PROCEDURE

Research assistants (Government teachers from the sampled schools) were trained over two days (totaling 10 hours) on the application of the reciprocal teaching strategy in both delivery modes and the standard administration of the instruments. The entire procedure spanned eight weeks. Week 1 focused on pre-test administration. Weeks 2-7 was set aside for implementation of the teaching intervention. In Week 8, post-tests were administered.

DATA ANALYSIS

Data on the four research questions were analyzed

using means and standard deviations. The study's hypotheses were tested using Analysis of Covariance (ANCOVA) at a 0.05 level of significance, with pre-test scores serving as the covariate to control for initial differences between groups.

FINDINGS OF THE STUDY

Results of this study are presented according to each of the four research questions and attendant hypotheses.

Research Question 1

What is the difference in the mean interest scores in Government between learners taught using the reciprocal teaching strategy in a face-to-face classroom and those taught in a blended learning classroom?

To compare the efficacy of the two instructional modes, learners' interest levels were assessed using the Learners' Interest in Government Rating Scale (SIGRS), administered both before and after the intervention.

The pre-test and post-test data were analyzed using mean and standard deviation to quantify differences in interest scores between the two groups. The results of this analysis are presented in Table 1.

As shown in Table 1, learners in the blended learning classroom exhibited a substantially higher mean gain in interest scores ($M = 25.49$) than those in the face-to-face classroom ($M = 13.59$), resulting in a mean difference of 11.9. This suggests that the blended learning mode was more effective in improving learners' interest in Government.

To determine the statistical significance of this difference, Hypothesis 1 shown below was tested and findings reported in Table 2.

Hypothesis 1

There is no significant difference between the mean interest in Government rating scores of learners exposed to reciprocal teaching strategy in face-to-face classroom and those in blended learning classroom.

Table 1
Mean and Standard Deviation of Learners' Interest in Government Scores by Instructional Mode

Mode of Instruction Delivery	Pre-test		Post-test		Mean Gain	
	N	Mean	SD	Mean		SD
Face-to-Face	32	51.69	3.91	65.28	3.64	13.59
Blended Learning	29	44.34	4.59	69.83	4.06	25.49
Mean Difference		7.35		4.55		11.9

The ANCOVA results revealed a statistically significant effect of instructional mode on learners' interest in Government, $F(1, 58) = 44.66$, $*p* < .001$. The null hypothesis was, therefore, rejected. This indicates a statistically significant difference in mean interest scores between the face-to-face and blended learning groups. The effect size was substantial (partial $\eta^2 = .44$), indicating that approximately 44% of the variance in learners' interest can be attributed to the instructional mode.

The finding in Table 2 confirms that while both instructional modes benefited from the reciprocal teaching strategy, the blended learning approach was significantly more effective in fostering learner interest. This enhanced interest is likely due to the advantages inherent in the blended model, which provided learners with flexible access to learning materials, diversified activities catering to various learning styles, and opportunities for self-paced learning with prompt feedback, all while retaining the benefits of face-to-face support.

Table 2

ANCOVA Test of Between-Subjects Effects on Learners' Interest in Government in Two Modes of Instruction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	516.985 ^a	2	258.493	22.375	.000	.436
Intercept	996.752	1	996.752	86.278	.000	.598
Pre-test interest	202.543	1	202.543	17.532	.000	.232
Mode of instruction	515.990	1	515.990	44.664	.000	.435
Error	670.064	58	11.553			
Total	278646.000	61				
Corrected Total	1187.049	60				

a. R Squared = .436 (Adjusted R Squared = .416)

The result in Table 2 aligns with previous research by Ginga, Mohammed, and Usman (2019) and Zaman (2019), who found reciprocal teaching improved interest in content areas, and is supported by Chukwumeka et al. (2020) and Osman and Hamza (2020), who demonstrated the positive impact of blended learning environments on learner engagement.

Research Question 2

What is the difference between the mean performance scores of learners in Government

when exposed to reciprocal teaching strategy in face-to-face classroom and blended learning classroom?

The purpose of Research Question 2 was to compare the efficacy of two instructional delivery modes—traditional face-to-face and blended learning—in enhancing learner achievement in Government when implementing a reciprocal teaching strategy, as measured by gains in post-test scores. The findings are presented in Table 3.

Table 3**Mean and Standard Deviation of Learners' Performance in Government Scores by Instructional Mode**

Mode of Instructional Delivery	Pre-test			Post-test		Mean Gain
	N	Mean	SD	Mean	SD	
Face-to-Face	32	16.50	2.72	34.19	3.83	17.69
Blended Learning	29	15.86	3.82	41.03	3.89	25.17
Mean Difference		0.64		6.84		7.48

As shown in Table 3, the analysis of post-test scores revealed a difference in performance based on instructional mode. The mean score for learners in the face-to-face classroom was 17.67, compared to a mean score of 25.17 for learners in the blended learning classroom. This resulted in a mean difference of 7.50 points, indicating a higher performance for the blended learning group.

To determine whether this observed difference was statistically significant, Hypothesis 2 was tested and findings presented in Table 4.

Hypotheses 2

There is no significant difference between the mean performance scores of learners in Government when exposed to reciprocal teaching strategy in face-to-face and blended learning classrooms.

The analysis of covariance results, presented in Table 4, indicate a statistically significant difference in performance between the two instructional modes, $F(1, 58) = 57.327$, $*p < .001$. Consequently, the null hypothesis was rejected.

Table 4**ANCOVA Test of Between-Subjects Effects on Learners' Performance in Government in Two Modes of Instruction**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	822.317 ^a	2	411.158	30.941	.000	.516
Intercept	2245.851	1	2245.851	169.007	.000	.745
Pre-test	109.108	1	109.108	8.211	.006	.124
Mode	761.786	1	761.786	57.327	.000	.497
Error	770.733	58	13.288			
Total	87112.000	61				
Corrected Total	1593.049	60				

a. R Squared = .516 (Adjusted R Squared = .500)

The effect size, measured by partial eta squared ($\eta^2 = 0.497$), is large, indicating that approximately 49.7% of the variance in learner performance can be attributed to the instructional delivery mode.

The results indicate that while the reciprocal teaching strategy was effective in both instructional modes, its impact was significantly greater within the blended learning environment, leading to superior learner achievement in Government compared to the face-to-face mode.

The effectiveness of reciprocal teaching—which promotes learner interaction, reading skill application, and reduces teacher dominance—was likely amplified by the structure of the blended learning model.

Blended learning provided additional advantages through self-paced learning modules, which allowed all learners to progress according to their individual needs, and increased opportunities for teacher engagement through both live e-learning and face-to-face sessions. This combination of structured autonomy and diversified interaction appears to offer a more effective environment for

implementing reciprocal teaching in Government instruction. This result aligns with previous research by Hall, Cohen, Vue, and Ganley (2015) and Huang and Hong (2016), who also found superior outcomes for learners in blended learning environments compared to traditional face-to-face classrooms.

Research Question 3

What is the difference between male and female learners' mean interest in Government rating scores when exposed to reciprocal teaching strategy in blended learning classroom?

Research Question 3 was designed to examine the effect of gender on learners' interest in Government when instructed through a blended learning mode. Male and female learners were taught together in the same blended learning classroom environment.

To measure interest levels, a researcher-designed Learners' Interest in Government Rating Scale was administered as a pre-test and post-test. The data collected were analyzed using mean and standard deviation, with the results presented in Table 5.

Table 5
Mean and Standard Deviation of Male and Female Learners' Interest in Government

Gender	Pre-test			Post-test		Mean Gain
	N	Mean	SD	Mean	SD	
<i>Face-to-Face</i>	32	45.75	4.41	71.0	3.54	25.25
<i>Blended Learning</i>	29	42.62	4.37	68.38	4.33	25.76
<i>Mean Difference</i>		3.13		2.62		0.51

As shown in Table 5, both male and female learners demonstrated increased interest in Government following the blended learning intervention. Male learners' mean interest scores rose from a pre-test value of 45.75 to a post-test value of 71.00, resulting in a mean gain of 25.25. Female learners' mean interest scores increased from 42.62 to 68.38, yielding a slightly higher mean gain of 25.76.

The marginal difference in mean gain between genders was 0.51, favoring female learners. This suggests that while the intervention was effective for both groups, female learners experienced a marginally greater increase in interest. The statistical significance of this difference was formally tested in Hypothesis 3 and results presented in Table 6.

Hypothesis 3

There is no significant difference between male and female learners' mean interest in Government rating scores when exposed to reciprocal teaching strategy in blended learning classroom.

An analysis of covariance revealed no statistically significant difference in interest ratings based on gender, $F(1, 26) = 0.792$, $*p* = .382$. Consequently, the null hypothesis was retained. The effect size was small (partial $\eta^2 = 0.030$), indicating that gender accounted for only 3.0% of the variance in learners' interest in Government.

The finding reported in Table 6 indicates that the blended learning mode of instruction, when integrated with the reciprocal teaching strategy, was equally effective in fostering interest in Government among both male and female learners.

The non-significant result suggests that the instructional approach created an equitable learning environment that engaged all learners. The strategy likely succeeded by providing diverse and accessible learning materials online, coupled with interactive classroom activities that catered to various learning styles. This combination, along with the provision of timely feedback, appears to have effectively stimulated interest across genders.

Table 6

ANCOVA Test of Between-Subjects Effects on Male and Female Learners' Interest in Government

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	151.595 ^a	2	75.797	6.346	.006	.328
Intercept	661.883	1	661.883	55.416	.000	.681
Pre-test	102.534	1	102.534	8.585	.007	.248
Gender	9.456	1	9.456	.792	.382	.030
Error	310.543	26	11.944			
Total	141863.000	29				
Corrected Total	462.138	28				

a. R Squared = .328 (Adjusted R Squared = .276)

This result is consistent with previous studies by Chukwuemeka, Olele, and Abraham (2020) and Ibenegbu, Nzewi, and Aniaku (2018), which also found no significant gender-based differences in learner interest within blended learning environments.

Research Question 4

What is the difference between male and female learners' mean performance scores in Government when exposed to reciprocal teaching strategy in blended learning classroom?

Table 7

Mean and Standard Deviation of Male and Female Learners' Performance in Government

Gender	Pre-test		Post-test			
	N	Mean	SD	Mean	SD	Mean Gain
Male	16	16.75	3.80	42.38	3.48	25.63
Female	13	14.77	3.48	39.38	3.86	24.61
Mean Difference		1.98		3.0		1.02

Male learners' mean scores increased from a pre-test average of 16.75 to a post-test average of 42.38, resulting in a mean gain of 25.63. Female learners' mean scores rose from 14.77 to 39.38, yielding a mean gain of 24.61. The difference in mean gain between genders was 1.02, indicating a marginally higher improvement for male learners. The statistical significance of this difference was tested using Hypothesis 4 and results presented in Table 8.

Research Question 4 examined the effect of gender on the academic performance of learners in Government when taught using a reciprocal teaching strategy within a blended learning environment. To assess this, an achievement test was administered to both male and female learners in the blended learning classroom as a pre-test and post-test. The resulting performance data were analyzed and are presented in Table 7.

As shown in Table 7, both male and female learners demonstrated substantial gains in performance following the intervention.

Hypothesis 4

There is no significant difference between male and female learners' performance scores in Government when exposed to reciprocal teaching strategy in blended learning classroom.

The analysis of covariance, presented in Table 8, indicates no statistically significant difference in performance based on gender, $F(1, 26) = 2.590$, $*p* = .098$. The null hypothesis was therefore retained.

Table 8**ANCOVA Test of Between-Subjects Effects on Male and Female Learners' Performance in Government**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	107.547 ^a	2	53.773	4.405	.023	.253
Intercept	1843.014	1	1843.014	150.963	.000	.853
Pre-test	43.408	1	43.408	3.556	.071	.120
Gender	36.016	1	36.016	2.950	.098	.102
Error	317.419	26	12.208			
Total	49256.000	29				
Corrected Total	424.966	28				

a. R Squared = .253 (Adjusted R Squared = .196)

The effect size was small (partial $\eta^2 = 0.102$), suggesting that gender accounted for only 10.2% of the observed variance in learner performance scores.

The finding in Table 8 demonstrates that the reciprocal teaching strategy delivered through a blended learning model was equally effective for both male and female learners in enhancing their achievement in Government.

The non-significant result suggests that the instructional approach created an equitable learning environment. The effectiveness of the strategy is likely due to the way reciprocal teaching equips all learners with interactive reading skills to process complex texts, an effect that was amplified by the flexible, self-paced nature of the blended learning format.

This format provided increased opportunities for teacher-learner engagement and accommodated diverse learning styles for all genders. This result corroborates the findings of Adepeko (2018) and Diovu, Ogbonna, and Eze (2021), who also concluded that gender does not significantly influence academic performance in certain subjects within a blended learning environment.

CONCLUSIONS

This study investigated the effects of the utilization of reciprocal teaching strategy on learners' interest and performance in Government, comparing face-to-face and blended learning classrooms. Based on the findings, it is concluded that the reciprocal teaching strategy is significantly more effective at improving both learner interest and academic performance in a

blended learning environment than in a traditional face-to-face setting.

Furthermore, the reciprocal teaching strategy demonstrated equity in its efficacy, as no significant differential effects based on gender were found for either interest or performance within the blended learning classroom. These results indicate that reciprocal teaching is a powerful tool for addressing learning poverty in Government. Given its success, the strategy also holds considerable promise for application across other social science disciplines and content-area subjects.

RECOMMENDATIONS

Based on the findings of the study, it was recommended that:

1. Teachers should adopt the use of reciprocal teaching strategy in teaching content area subjects, especially Government, using blended learning as the mode of instruction.
2. The ministry of Education should provide information communication technology (ICT) facilities in schools to enhance the use of blended learning instructional delivery mode.
3. Parents should provide ICT devices in their homes for their male and female children to leverage on the effectiveness of blended learning and improve on the learning poverty in content area subjects.

SUGGESTIONS FOR FURTHER RESEARCH

To further advance the remediation of learning poverty, the following avenues for future research are suggested:

1. A replication of this study should be conducted in other states within Nigeria and in other national contexts to assess the generalizability of the findings across different educational systems.
2. Research should investigate the efficacy of combining reciprocal teaching with blended learning in other content-area subjects within the social sciences and beyond to determine its broader applicability.
3. Future studies could explore the impact of this integrated instructional approach on other critical psychological variables, such as learner motivation, self-efficacy, and metacognitive skills.

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APPENDICES

APPENDIX A: LEARNERS' INTEREST IN GOVERNMENT RATING SCALE

Instructions:

Indicate your gender by ticking (✓) in the space provided as appropriate.

Male

Female

Below are statements on your interest in reading the subject, Government. Read carefully and rate each statement on the scale provided as it applies to you. Please, tick (✓) in the appropriate space that corresponds to your response.

Key:

SA= Strongly Agree

A= Agree

D=Disagree

SD= Strongly Disagree

Item	Statement	Responses			
		SA	A	D	SD
1	I love reading Government texts.				
2	I enjoy reading Government texts only when I have test.				
3	I usually have no interest in reading pictures whenever I read government texts.				
4	Reading Government texts is boring to me.				
5	While reading Government texts, I do not enjoy topics that are historical in nature.				
6	I enjoy reading Government texts even when I do not have test.				
7	I feel that reading Government texts improves my academic performance.				
8	I like reading historical topics in Government.				
9	I love re-reading topics in Government.				
10	I love to study pictorial illustrations in my Government study materials.				
11	I like reading Government texts with my study mates.				
12	I feel that reading Government study materials is not important to my academic progress.				
13	I love to read Government texts every day.				
14	I study Government just to complete the number of subjects required of me.				
15	I do not like tasks that compel me to read Government texts.				
16	I do not enjoy writing main points whenever I read Government texts.				
17	I do not enjoy reading topics in Government which I have read before.				
18	I am always eager to seek clarification from others whenever I read a Government material that confuses me.				
19	Reading Government texts with my class mates is boring to me.				
20	I love tasks that encourage me to read Government texts.				
21	I do not enjoy asking questions on the material I read in Government.				
22	I read study Government because I was told it is easy to pass.				

APPENDIX B: LEARNERS' PERFORMANCE IN GOVERNMENT TEST (SPGT)

SECTION A: Instructions

Answer **three** questions in all. Each question carries 20 marks.

Indicate your gender (male/female) and your identifier number at the top right hand side of your answer script.

Time allowed: 1 hour

SECTION B

Highlight **five** features of the Hausa/Fulani pre-colonial political system in Nigeria.

Identify any **two** functions of the council of Chiefs in the pre-colonial Yoruba political system.

Advance any **three** reasons to show that the pre-colonial government in Yoruba land was democratic.

Discuss **five** positive effects of colonialism on West Africa.

APPENDIX C: MARKING GUIDE FOR LEARNERS' PERFORMANCE IN GOVERNMENT TEST

Highlight **five** features of the Hausa/Fulani pre-colonial political system in Nigeria.

- Learners are expected to present the following answers in order to score good marks:
- Centralisation of Authority-Hierarchy of Governance: The Emir was the head of government. He was assisted by appointed head of chiefs, example, Madawaki, Galadima and Waziri.
- The size of the Emirate system was large. The Emirate occupied a large expanse of land with many populations.
- Stratification: The Hausa/Fulani society was segmented into upper, middle and lower classes-The Talakawas.
- Army: Every Emirate kept a standing army under the control of Madawaki.
- The Emirate judicial system was based on the sharia law headed by the Alkali and the Emir's court was the highest court.
- Ruler-ship was for life.
- Succession to the throne was hereditary.
- The political system was based on theocracy e.g. Islamic religion.
- Emirs were empowered to make laws where Islamic laws were silent.
- Emirs were empowered to pronounce death sentence on defaulters.
- There was regularized system of taxation in operation.
- Executive, legislative and judicial powers were concentrated on the Emir.

(Any five features presented in correct spellings, punctuation and expression will be awarded 4 marks each to a maximum of 20 marks. Correct answers presented in poor expression, punctuation and spelling errors will lose 1 mark each to a maximum of four marks).

Identify any **two** functions of the council of Chiefs in the pre-colonial Yoruba political system.

Advance any **three** reasons to show that the pre-colonial government in Yoruba land was democratic.

The following points are required from the learners:

- The Council of Chiefs performed the following functions:
- The council served as king maker;
- Initiated laws;
- Check on the powers of the Oba.

(Four marks will be awarded to each point to a maximum of 8 marks. Correct answers presented with mechanical and expression errors will lose 2 marks)

The Pre-colonial government in Yoruba land was democratic because of the following reasons:

- Selection of the Oba was done by a group of king makers, representing various segments of the society.
- The excesses of the Oba were checked by both the Council of Senior Chiefs (Oyomesi) and the Ogboni cult.
- The Oba with the senior chiefs made laws for the people.
- The palace chiefs made up the legislature with the Oba.

(Four marks will be awarded to each point to a maximum of 12 marks. Correct answers presented with expression and mechanical errors will lose 3 marks).

2. Discuss **five** positive effects of colonialism on West Africa.

Learners are expected to give the following points as answers:

- Introduction of modern system of government;
- Introduction of currency;
- Establishment of financial institutions, that is banks, insurance;
- Establishment of hospitals and other health institutions;
- Introduction of western education;
- The development of modern communication systems;
- Introduction of modern communication system, that is, radio, television, telephone;
- Introduction of lingua franca;
- Abolition of obnoxious cultural practices, example, human sacrifices.
- The exploitation of West Africa resources;
- Introduction of modern technology in mining and agriculture among others;
- Introduction of cash crops like cocoa, rubber, cashew among others.

(Each correct point will be awarded 4 marks to a maximum of 20 marks).

APPENDIX D: LESSON PLAN FOR TEACHING GOVERNMENT USING RECIPROCAL TEACHING STRATEGY

LESSON PLAN 1: USING RECIPROCAL TEACHING STRATEGY TO TEACH GOVERNMENT

Topic: Pre-colonial Political Systems in Nigeria

Sub-topic: Hausa/Fulani Political System

Subject: Government

Class: Senior Secondary Two (SS 2)

Average Age of Learners: 15 years

Duration: 40 minutes

Teaching Aids: Map showing the pre-colonial political entities in Nigeria, copies of text on the Hausa/Fulani pre-colonial political system in Nigeria.

Previous Knowledge: The learners belong to various traditional political systems. They can describe the traditional political system to which they belong.

Behavioural Objectives: By the end of the lesson, learners should be able to:

give a brief history of the origin of the Hausa/ Fulani pre-colonial political system in Nigeria;

briefly describe the administrative structure of the Hausa/Fulani pre-colonial political system;

state at least three reasons why the Hausa/Fulani traditional political system was considered undemocratic.

Content: Hausa/Fulani Traditional System	Time: 40 minutes	Teacher's Activities	Learners' Activities
Introduction	5 minutes	Teacher: Introduces the topic of the lesson: 'Pre-colonial political systems in Nigeria: The Hausa/Fulani Pre-colonial political system.' activates learners' previous knowledge by asking them to describe their traditional political systems. asks purpose setting questions thus: What was the political structure of the Hausa/Fulani traditional society? Was the political system democratic?	Learners: write down the topic. describe their traditional political systems. take note of the purpose setting questions.

Step1: Predicting		Teacher: places learners into mixed ability groups. guides learners to make predictions on the topic. shares copies of the text on the Hausa/Fulani traditional political system to learner groups.	Learners: form mixed ability groups of at least four learners per each group. make predictions on aspects of the sub-topic such as the origin of the political system, its structure, whether it was democratic or not. each group receives a copy of the text.
Step 3: Questioning	5 minutes	Teacher guides learners to ask questions to guide their reading.	Learners: ask questions to guide their reading. such questions may include the following: what was the origin of the Hausa/Fulani pre-colonial political system? How was the structure of the system? What administrative functions did the leaders perform? How democratic or otherwise was the system? How similar/ different is the traditional system from the present political system in Nigeria?
Step 4: Reading and Clarifying	15 minutes	Teacher: guides learners to read the text to: confirm their predictions and answer the guiding questions raised. guides learners to discuss and clarify vocabulary or/and issues about the Hausa/Fulani political system. Words for clarification may include ‘Habe’, ‘jihad’, ‘empire’, ‘Emir’ ‘jangali’, ‘Hakimi’. guides learners to state how the system was undemocratic. guides learners to explain how similar or otherwise the system is to the present political system in Nigeria.	Learners: read the given text. discuss in groups and confirm relevant/ dismiss inappropriate predictions. Provide answers to the questions raised. hold discussions and identify words, phrases and issues for clarification. clarify by consulting the teacher, group members, text or dictionary. state whether the political system was democratic or otherwise (may consider method of choosing leaders, judicial system, legislative system, fundamental human rights as indices of comparison).
Step4: Summarising	5 minutes	Teacher guides learners to write a summary of the Hausa/Fulani pre-colonial political system.	Learners summarise the Hausa/Fulani pre-colonial political system.
Step 5: Evaluation	5 minutes	Teacher evaluates the lesson by asking learners the following questions: Give a brief history of the origin of the Hausa/ Fulani pre-colonial political system in Nigeria; Briefly describe the administrative structure of the Hausa/ Fulani pre-colonial political system; Identify at least three functions of the Emir;	Learners provide answers to the questions.

		State at least three reasons why the Hausa/Fulani traditional political system was undemocratic.	
Conclusion		Teacher concludes the lesson by highlighting the components of the lesson thus: We have studied the Hausa/Fulani Pre-colonial political system. We have learnt the origin and features of the system and evaluated the system to show how it was not democratic.	Learners take note of the conclusion.
Assignment		Teacher asks learners to compare the Hausa/Fulani pre-colonial system to the present political system in Nigeria. Teacher in the blended learning group provides similar lesson activities on the same topic for learners to take the lesson on Google classroom.	Learners use indices such as method of choosing leaders, fundamental human rights, and separation of powers, check and balances to compare the pre-colonial system with the present political system in Nigeria. Learners in the face-to-face class write their answer in their exercise books. Learners in the blended learning group carry out similar activities on the topic on Google classroom and do the assignment.