

Interaction Effect of Gender and Teaching Methods on Students' Retention in Literary Appreciation

(Pengaruh Interaksi Gender dan Metode Pengajaran terhadap Retensi Siswa dalam Apresiasi Sastra)

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Abstract: Students' poor retention and declining interest in literary appreciation have continued to pose serious challenges to the effective teaching and learning of Literature in English in Nigerian secondary schools. Traditional teaching methods that emphasize teacher-centered instruction often fail to sustain students' long-term understanding and engagement. This study therefore investigated the interaction effect of gender and teaching methods on students' retention in literary appreciation among Senior Secondary II students in Anambra State. The study adopted a quasi-experimental design using a pretest and posttest non-equivalent control group. Intact classes were assigned to experimental and control groups, with the experimental group taught through reciprocal peer tutoring and the control group through conventional teaching. Conducted in Anambra State, the study involved 65 Senior Secondary II students drawn from two co-educational schools. Data were collected using the Literature in English Achievement and Retention Test, validated and found reliable with a coefficient of 0.72. Teachers administered pretests, posttests, and retention tests. Data were analyzed using mean, standard deviation, and analysis of covariance at a 0.05 significance level. The findings revealed that male students recorded a posttest mean score of (52.81) and retention mean of (55.61) with a gain of (2.80), while female students had posttest and retention means of (51.47) and (52.58) with a gain of (1.11). This indicated that males achieved slightly higher retention using the conventional method. The ANCOVA result showed a significance value of (0.102), which exceeded the (0.05) level, leading to the acceptance of the null hypothesis. Hence, there was no significant interaction effect of gender and teaching methods on students' retention in literary appreciation, implying that retention was independent of gender. The study concluded that students' retention depended more on the teaching strategies employed than on gender differences. It recommended that Literature in English teachers adopt more interactive and student-centered approaches such as Reciprocal Peer Tutoring to enhance understanding and long-term retention in literary studies.

Keywords: Gender, Teaching Methods, Retention, Literary Appreciation, Reciprocal Peer Tutoring

1. Introduction

Research on retention and learning provides a theoretical and empirical foundation for examining gender $\times$ teaching-method interactions in literary appreciation. Memory research demonstrates well-established mechanisms that govern retention (for example, spacing, retrieval practice, and depth of processing). Ebbinghaus's foundational work on forgetting curves highlights the transient nature of memory without reinforcement (Huang et al, 2021), and experimental studies show that retrieval practice reliably increases long-term retention (Carpenter et al, 2022). Those general cognitive findings suggest that teaching methods which embed active retrieval and spaced encounters with texts should improve retention in literary appreciation regardless of content area.

Pedagogical reviews emphasize that active, student-centered methods (e.g., discussion, problem-based tasks, collaborative inquiry) produce stronger learning outcomes than passive

lecture formats. Indorf et al, 2021) review of active learning across disciplines found consistent benefits for understanding and retention when students engage cognitively and socially with material. Abrami et al, (2015) synthesis of meta-analyses further corroborates that instructional strategies that promote elaboration, feedback, and student engagement have substantial positive effects on achievement, while also noting that effect sizes can be moderated by learner characteristics, instructional context, and task type.

Literary appreciation, as a domain, invokes both cognitive skills (comprehension, inference, memory for plot/structure) and affective/interpretive processes (emotion, identity, perspective-taking). Rosenblatt's transactional theory of reading foregrounds the reader's active role: meaning is co-constructed through the reader's background, stance, and the text (Rosenblatt, 2018). This theory implies that pedagogies which honor students' perspectives (reader-response discussions, reflective writing, dramatization) can both deepen engagement and create richer, more durable memory traces for literary material.

Gender as a learner characteristic has been the subject of extensive meta-analytic work showing small to moderate differences in academic outcomes depending on subject area, assessment type, and context (Sadler, 2017). Importantly, the gender-differences literature emphasizes variability and context dependence rather than fixed deficits: differences often shrink or disappear when instruction or assessment is adapted. Bandura's social learning theory (1977) also reminds us that social context, modeling, and perceived self-efficacy factors that can differ by gendered classroom experiences affect learning outcomes.

When these streams are combined, the literature suggests plausible interaction pathways: teaching methods that increase social risk (e.g., whole-class oral defense of interpretation) might differentially affect students depending on gendered norms about participation and confidence; methods that emphasize written, private reflection may benefit students who are less comfortable with public performance. Active methods that scaffold retrieval practice and collaborative elaboration should, in principle, support retention across genders, but unequal participation patterns or stereotype threat could moderate those benefits (Fiechter & Benjamin, 2019; Bandura, 1977).

Empirical research directly investigating the interaction between gender and teaching methods in literary appreciation remains limited, fragmented, and context-specific, often yielding inconsistent findings. Existing evidence indicates three main trends: first, active and retrieval-oriented pedagogies significantly enhance students' retention and academic achievement; second, gender-related differences in learning outcomes tend to be modest and context-dependent; and third, there is a crucial need for systematic studies that assess both long-term retention and participation metrics to understand interactive effects more clearly (Ohamobi & Ezeaku, 2018; Topp et al, 2018.). Although studies have demonstrated that learner-centered approaches foster engagement and deeper cognitive processing (Osegbue et al, 2022), few have examined whether these pedagogical benefits operate similarly across genders in literature classrooms.

Furthermore, research in literary appreciation has traditionally emphasized interpretation and affective engagement, neglecting the cognitive dimension of retention. Recent findings in Anambra State indicate that students' engagement variables and instructional approaches are critical correlates of achievement across subjects (Ohamobi & Ezeaku, 2016), suggesting that these relationships warrant exploration within literary studies as well. Studies

in educational management also reveal that effective instructional leadership and collaborative teaching enhance inclusivity and performance (Osegbue et al, 2018), which underscores the need for pedagogical practices that account for gender dynamics in classroom participation (Bandura, 1977). Therefore, investigating how gender interacts with teaching methods to influence students' retention in literary appreciation is essential for promoting equitable, inclusive, and lasting learning outcomes. Addressing this research gap will generate empirical evidence to inform teachers' adoption of strategies that optimize both cognitive retention and gender-responsive pedagogy in literature education.

1.1 Objective

The interaction effect of gender and methods on students' retention in literary appreciation.

1.2 Research Question

What are the mean retention scores of male and female students in literary appreciation when taught conventional method?

1.3 Hypotheses

There is no interaction effect of gender and methods on students' retention in literary appreciation.

2. Method

The study adopted a quasi-experimental design, using the pretest and posttest non-equivalent control group approach to determine the effectiveness of reciprocal peer tutoring on students' achievement and retention in Literature in English. In this design, there was no random selection of participants. Instead, intact classes were randomly assigned to experimental and control groups. The experimental group received lessons through the reciprocal peer tutoring strategy, while the control group was taught using the conventional teaching approach. This design made it possible to compare students' performance before and after the intervention as well as their ability to retain knowledge over time.

The study was conducted in Anambra State, Nigeria. The state has six education zones and twenty-one local government areas with a total of 254 public secondary schools. It lies within the tropical rainforest belt and is predominantly occupied by the Igbo ethnic group. Bordered by Kogi, Enugu, Imo, Rivers, and Delta States, Anambra is well known for its commercial activities. The area was considered suitable for the study because of students' declining interest in reading and their tendency to patronize external examination centres. It was believed that introducing reciprocal peer tutoring could improve students' interest and performance in Literature in English.

The population of the study consisted of 11,640 Senior Secondary II students made up of 5,135 males and 6,505 females who were offering Literature in English in public secondary schools. Senior Secondary II students were considered appropriate because they are not preparing for final examinations and have already acquired the basic skills in literary appreciation necessary for the study. A sample of 65 students was selected using a multistage sampling technique. The process began with the random selection of one education zone in the state. Two local government areas were then randomly selected from the zone. From these areas, two co-educational secondary schools with qualified Literature in English teachers were

purposely chosen to ensure a gender mix. One school was assigned to the experimental group and the other to the control group.

The instrument for data collection was the Literature in English Achievement and Retention Test which contained twenty items derived from the 2016 to 2020 West African Examination Council and Secondary School Certificate Examination poetry syllabus. The instrument included ten short-answer questions from the prescribed poems and ten on an unseen poem. It was used as pretest, posttest, and retention test with slight modifications in wording for each administration. To ensure validity, five experts examined the instrument for accuracy, clarity, and content relevance. Their suggestions were incorporated into the final version. The reliability of the instrument was determined using a trial test conducted on twelve students from Enugu State, which produced a scorer reliability coefficient of 0.68 and a Kuder Richardson coefficient of 0.72, indicating that the instrument was reliable.

Data collection was carried out through trained Literature in English teachers who administered the tests before and after the treatment. Both groups were taught the same content for six weeks but with different strategies. The experimental group worked in small peer groups with rotating roles of tutor, clarifier, questioner, and summarizer, while the control group received teacher-led instruction. To control external influences, uniform lesson plans and consistent classroom conditions were maintained. Data were analyzed using mean and standard deviation to answer research questions, while hypotheses were tested with analysis of covariance at a 0.05 level of significance. This method provided a credible and structured approach to assessing how reciprocal peer tutoring improves students' learning outcomes in Literature in English.

3. Results

Research Question: What are the mean retention scores of male and female students in literary appreciation when taught conventional method?

The data for answering research question were analyzed with mean and standard deviation and results presented in the Table 1.

Table 1. Posttest and Retention Mean scores of Male and Female Students taught literacy Appreciation using conventional method

Gender	Posttest			Retention		Retention
	N	$\bar{X}$	SD	$\bar{X}$	SD	Gain
Male	15	52.81	10.39	55.61	10.44	2.80
Female	19	51.47	10.22	52.58	10.06	1.11

The results in table 1 show that the male and female students had a post-test mean achievement scores of 52.81 and 51.47 with standard deviations of 10.39 and 10.22 respectively while their retention mean scores were 55.61 and 54.58 with standard deviations of 10.44 and 10.06 for male and female respectively. The mean gain for male students was 2.80 while that of the females was 1.11 showing that the males had higher retention scores with the conventional method.

Hypothesis: There is no interaction effect of gender and methods on students' retention in literary Appreciation.

The data for testing hypothesis were analyzed with ANCOVA and the results presented in Table 2.

Table 2. Analysis of Covariance (ANCOVA) on Interaction Effect of Gender and Methods on Students' Retention on literary Appreciation

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	13666.051 ^a	4	3096.697	103.988	.000
Intercept	1455.526	1	1455.526	44.302	.000
Post test	9431.425	1	9431.425	287.064	.000
Group	227.229	1	227.229	6.916	.010
Gender	465.642	1	465.642	14.173	.000
Methods * Gender	84.236	1	84.236	2.564	.102
Error	2332.686	63	32.855		
Total	265208.000	65			
Corrected Total	15998.737	64			

The results in Table 2 reveal a probability value of 0.102. Since this value is greater than 0.05 level of significance, the hypothesis of no significant interaction effect was upheld. Therefore, there is no significant interaction effect of gender and methods on students' retention of literary Appreciation. This means that gender of the students did not really combine with the strategies to influence their retention in literacy Appreciation. In other words, the students' retention is not connected with their gender but linked to the learning strategies employed in the study.

4. Discussion

The findings indicated that male students recorded posttest and retention mean scores of 52.81 and 55.61, with a mean gain of 2.80, while female students obtained mean scores of 51.47 and 52.58, with a mean gain of 1.11. This implied that males exhibited slightly higher retention in literary appreciation when taught using the conventional method. The ANCOVA result in Table 2 further revealed a significance value of 0.102, which was greater than the 0.05 level of significance. Hence, the null hypothesis was accepted, signifying that there was no significant interaction effect of gender and teaching methods on students' retention. This finding agreed with Pantic and Clarke-Midura (2019), who observed that gender did not significantly influence retention in English literature, emphasizing that instructional approaches rather than gender determined students' performance. In contrast, a study by Chen et al (2019) reported that female students displayed better retention due to their higher engagement in reading and reflective learning practices. In a related study, Goodman et al, (2023) found that male students showed slightly higher retention in literary comprehension, attributing the difference to confidence levels and classroom participation.

Similarly, Anyanwu and Iwuamadi (2015) confirmed that both male and female students performed comparably when taught with teacher-centered approaches, suggesting that retention differences were minimal under conventional instruction. However, this result contrasted with that of Kim (2017), who found that gender had a significant effect on students' long-term recall in language-based subjects when exposed to interactive learning environments. Likewise, the findings differed from those of Odağ (2013), who reported that females tended to

retain more literary content due to their stronger affective engagement with texts. The present finding established that gender did not significantly interact with teaching methods to influence retention in literary appreciation. The higher mean gain recorded for males could be attributed to random variations rather than inherent gender differences. This supported the argument that learning outcomes in literature depend more on the instructional strategies adopted than on gender characteristics. Consequently, adopting effective and inclusive teaching approaches remains essential in promoting equal learning opportunities and enhancing students' long-term understanding of literary concepts.

5. Conclusion

The study concluded that gender did not significantly influence students' ability to retain learned concepts when exposed to different instructional methods. The results revealed that male students achieved slightly higher mean retention scores than their female counterparts under the conventional teaching method; however, the difference was not statistically significant. This finding implied that both male and female students demonstrated comparable levels of understanding and memory retention when provided with similar instructional experiences. The absence of a significant interaction effect between gender and teaching methods suggested that the effectiveness of teaching strategies in literary appreciation depends largely on how learners engage with the instructional process rather than on gender differences. The study therefore established that improving retention in literary appreciation requires the adoption of learner-centered and participatory instructional methods that encourage active involvement, collaboration, and reflective learning among students, irrespective of gender. It was concluded that teachers should emphasize approaches such as reciprocal peer tutoring and discussion-based learning to sustain long-term comprehension of literary texts. Educational stakeholders should also support teacher training programs focused on innovative pedagogies that promote equal learning outcomes and foster inclusive classroom environments.

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