

Social Studies Instruction and Learning: Reciprocal Peer Tutoring (RPT) Effect on Students Scholarly Performance in Upper Basic Classroom

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Abstract

This study aims to 1) examine Reciprocal Peer Tutoring (RPT) effect on students' scholarly performance and 2) whether students' gender would influence students' scholarly performance. The research employed a quasi-experimentation approach. One hundred seventy-three (173) students from the Upper Basic 8 level were involved in the study. The research tool employed in this study is the Scholarly Performance Test (SPT). The mean statistical instrument was utilised to provide and address the study research questions. The statistical technique of Analysis of Covariance (ANCOVA) was employed to test the hypotheses. The findings revealed a significant RPT instructional effect on social studies students' scholarly performance; there were notable disparities in the students' scholarly performance in relation to gender, with male students demonstrating a more favourable scholarly performance. The study concluded that the utilisation of the RPT instructional method resulted in a significant enhancement of students' scholarly performance; the influence of students' gender is a significant element affecting their scholarly performance. It was recommended that social studies instructors/teachers should incorporate the RPT teaching approach to cultivate dynamic and engaged learning experiences. RPT should be adopted in classroom instruction to improve social studies students' scholarly performance, taking cognisance of students' gender.

Keywords: Social Studies Instruction; Social Studies Learning; Instruction and Learning; Reciprocal Peer Tutoring (RPT); Students Scholarly Performance; Upper Basic Classroom

1. Introduction

Education should encompass educational objectives that involve the transmission of knowledge and skills, the socialisation of children and adolescents into the prevailing values and attitudes necessary for effective functioning within our society, and the facilitation of cognitive, social, and physical development in each student. Previous research has identified inappropriate teaching approaches/methods as contributing factors to the unsatisfactory students' scholarly performance in the subject or discipline of Social Studies (Isa, Mammam, Badar, & Bala, 2020; Obro, Ogheneakoke & Akpochafo, 2021; Obro, 2023). In this particular context, considering the potential correlation between Social Studies students' scholarly performance and the instructional approaches employed, it becomes evident that Social Studies teachers and educators bear the responsibility to devise and explore instructional/teaching approaches alongside other relevant factors that are efficacious and yield positive outcomes in terms of enhancing students' scholarly performance and Social Studies comprehension (Akinsola, 2012, Obro & Enayemo, 2022).

Teachers' current pedagogical approach focuses on discipline, a teacher-centred instructional pattern or approach, and a predominantly passive form of surface learning among students (Misan-Ruppee, Obro & Akpochafo, 2023). A substantial body of evidence indicates that discipline-centred teaching neglects teachers' and students' requirements and needs, as the focus is primarily on presenting disciplinary content. The effective application and utilisation of instruction necessitates carefully considering the pedagogical approach employed in the teaching-learning process. Students' unsatisfactory scholarly performance has prompted researchers to delve into the underlying causes and explore strategies to enhance classroom instruction and students' scholarly performance.

According to Obro (2021), an appropriate instructional method should encompass the effective methods of teaching a subject. Teaching effectiveness is contingent upon utilising a process that elicits a desirable alteration in the learner's behaviour. The teaching objective should encompass cultivating students' interest in the subject matter and enhancing their scholarly performance. Employing innovative and outcome-driven approaches is imperative and vital to attain this crucial objective.

The usage or application of RPT instructional method has been employed as a teaching approach to enhance student retention, persistence, and graduation rates, irrespective of the characteristics of the education system and institution, such as type, size, or location. This approach has been identified as one of the most influential factors for college students, as proved by the research conducted by prominent scholars. To enhance rates of retention, perseverance, and graduation, higher education institutions have adopted peer education programmes (Cofer, McBrayer, Zinskie, Wells, & Fallon, 2022). According to Abdul Raheem, Yusuf, & Odutayo (2017), RPT has garnered significant scholarly attention within education. Proponents believe this instructional style is crucial for comprehensive education, representing a fundamental pillar of collaborative learning.

The gender differences or disparities in students' scholarly performance is a prominent issue that has garnered significant public attention. The observed discrepancy has been ascribed to various factors and reasons, for instance, the perpetuation of social, economic, and cultural stereotypes. Gender encompasses a spectrum of physical, biological, mental, and behavioural attributes that distinguish and delineate individuals within the female and male populations

(Adigun, Onihunwa, Irunokhai, Sada, & Adesina, 2015). The import of investigating students' scholarly performance concerning gender is essentially rooted in the socio-cultural disparities between females and males. Certain vocations and professions have historically been lined or associated with men, such as engineering, arts and crafts, and agriculture.

Conversely, there have been occupations traditionally associated with women, such as catering, typing, and nursing. Indeed, parental responsibilities such as car washing, grass cutting, and home repair to their male offspring delegation is a well-documented occurrence. Among the researchers investigating students' scholarly performance disparity between genders, none provided a definitive response regarding the association between RPT and gender.

The connection between gender and students' scholarly performance in relation to instructional methods has been widely discussed in literature due to its significant impact on students' scholarly performance. The gender effect in relation to instructional methods on scholarly disciplines has elicited considerable debate. Several studies have indicated variations in students' scholarly performance between boys and girls in respect of instructional methods across different school disciplines. While some researchers have reported the absence of noteworthy disparities in scholarly performance between sexes in studies on instructional methods across various levels, most studies have acknowledged the existence of gender disparities or differences when students are subjected to teaching or instructional method (Adeyemi & Adeyemi, 2013; Salihu, 2021). It is widely held that male pupils/students exceed their female counterparts in using some instructional methods. According to Ani, Kalu, Iketaku & Obodo (2020), Mwhia (2020), and Misan-Ruppee, Obro & Akpochafo (2023), who explored instructional methods and gender, reported that gender disparity exist favourable to boys or male students. Conversely, Tonne (2014) discovered that females exhibited superior scholarly performance to males in several non-scientific academic domains in relation to instructional methods.

Hong, Liu and Zhao (2021) analysed students' scholarly performance among high school seniors utilising the RPT teaching method and observed that female students exhibited higher or enhanced scholarly performance than male students. A study by Akissani, Muntari & Ahmed (2019), gender variable did not demonstrate a significant influence/effect on the total mean scholarly performance rating of pupils in relation to instructional methods. The study by Eseine-Aloja (2021) demonstrated a notable disparity in cognitive accomplishment across pupils, with male students exhibiting higher performance than their female peers when exposed to instructional methods.

While some social studies educators and scholars support deploying and applying new and student-centred instructional methods such as RPT, evidence indicates that the present instructional methods and practices used in social studies predominantly adhere to teacher-centred methodologies. This approach engenders passivity and ennui among pupils during the instructional process. The introduction of new, effective, and suitable instructional methods for social studies instruction to boost the effectiveness of instructional delivery and students' scholarly performance. Hence, the primary objective of this research is to investigate if RPT has a discernible effect or influence on social studies students' scholarly performance.

2. Literature Review

2.1 Theoretical Framework

Vygotsky's (1987) theory of cognitive co-constructivism serves as the theoretical foundation for this investigation. The author's research focuses on implementing RPT, making it relevant to this current study. According to Vygotsky (1987), the internalisation process involves not only the assimilation of information but also the incorporation of fundamental cognitive processes inherent in communication. Vygotsky proposed that problem-solving within a collaborative framework can elicit novel responses and capabilities among peers, operating at both the social and individual levels. The author referred to these emerging domains as the forefront of children's cognitive development, denoting them as a Zone of Proximal Development (ZPD).

The ZPD theory postulated that peers engage in a collaborative process, collectively generating novel interpretations and cognitive frameworks through their shared learning encounters. According to Vygotsky, the import of peer contact in learning cannot be overstated, as it plays a vital part or role in enabling and facilitating the internalisation of knowledge and fostering long-term cognitive development. The Zone of Proximal Development (ZPD) emerges through the dynamic interaction between a kid and a more experienced and knowledgeable mentor, wherein the child engages in intellectually stimulating activities. Consequently, both participants involved in the encounter have the potential to gain advantages.

2.2 Reciprocal Peer Tutoring (RPT)

This is a form of academic support where students assist and guide their peers in learning. It involves students with similar education. It is peer collaboration within the framework of cooperative learning methodologies (Ehirheme & Eze, 2021). The concept involves the application of organised, directed, and standardised peer contact to enhance and support scholarly performance (Odesa & Ogheneakoke, 2023). RPT is widely recognised as an instructional approach wherein a student with expertise in a particular subject matter imparts knowledge and guidance to another less knowledgeable student. Shahzada, Maroof & Saira (2016) emphasised that the teaching approach of RPT is designed to foster active involvement among all learners inside the classroom. It allows all students to flourish in their scholarly pursuits and attain most of their educational objectives.

In most instances, RPT exhibits distinct characteristics associated with role-taking. In the framework of RPT, students assume the position of tutor(s) while their peers take on the tutee(s) role. In a broad context, RPT prioritises the curriculum subject and adheres to specified protocols for engagement. Typically, these encounters are facilitated through the distribution/sharing of organised resources, in which students may exercise a certain amount of independence or autonomy in selecting their materials (Tella, 2013).

The RPT instructional method prioritises student-centred learning within small group settings typified by participants' adoption of distinct roles. It is a cooperative and collaborative instructional method that encourages student engagement and has been found to impact students' scholarly performance in many cases (Olulowo, Ige, Gwoke & Osman, 2020). A form of cooperative and collaborative method, it promotes students' engagement. It is highly linked to students' scholarly performance since research findings have in recent times shifted both

ways (Benefits/advantages and No Benefits/disadvantages.). Empirical evidence has established that RPT enhanced students' scholarly performance (Gamlem, 2019).

2.3 Related Studies on RPT and Scholarly Performance

Recent research findings have presented conflicting perspectives on the benefits/advantages of this strategy. A comprehensive review of studies or researches on the effects of RPT on students' scholarly performance reveals mixed results. Empirical evidence has established a positive correlation between enhanced students' scholarly performance and RPT. The study by Olulowo, Ige & Gwoke (2020) examined the efficacy of the RPT instructional technique in boosting students' scholarly performance. The research sample involved 137 students selected from eight intact classrooms. The research concluded that the RPT instructional method Enhanced students' scholastic performance with remarkable effectiveness compared to the conventional lecture approach/method. Muhammad, Abdullah and Osman (2020), in their research on RPT, discovered that as an instructional method, pairing high-performing students with others while learning to achieve optimum benefits from each other helps significantly. Ehirheme & Eze (2021) researched RPT on students' scholarly performance in Nigerian polytechnics. With a sample size of 227 students, the research reported that RPT has higher positive effects on students' scholarly performance in OTM than the Teacher-dominated Instructional Approach (TDIA), thus boosting students' scholarly performance.

Cofer, McBrayer, Zinskie, Wells & Fallon (2022) explored the experiences of RPT leaders within campus learning centres. The study presented results that indicated a notable variance in the advantages experienced by peer teachers, depending on their respective responsibilities. Specifically, tutors reported increased perceived improvements in comparison or contrast to other peer teachers. Nbame (2022) explored RPT's effect on students' scholarly performance in mathematics. The research findings revealed that RPT enhanced students' scholarly performance, making them more comfortable and open to interacting with their peers. Alegre, Moliner, Maroto, & Lorenzo-Valentin (2020) investigated the RPT effect in Mathematics. Involving 89 students, the study showed noteworthy improvements in students' scholarly performance. Longjohn & Osila (2022) investigated PRT effect on students' scholarly performance. A sample size of one hundred and ninety- five (195) students were involved in this research. The result concluded that students who used the RPT method performed better than those with the lecture technique/Method.

However, in contrast to the findings of Solomon & Crowe (2011) regarding the efficacy of the RPT approach in promoting students' scholarly performance, the result proved that students exhibited challenges in acquiring fundamental facilitation abilities and had difficulties distinguishing between their roles as students and tutors.

2.4 Gender and Student Scholarly Performance

Gender is one factor identified in the existing body of literature as having significant impacts or effects on students' scholarly performance when students are instructed with instructional methods. The studies on gender in students' scholarly performance in relation to instructional methods have been a contention topic. Several studies on instructional methods have indicated that males exhibit in specific scholarly fields superior scholarly performance,

whereas females in relation to instructional methods demonstrate higher proficiency in others. Some researchers have reported the lack or absence of substantial differences/disparities in students' scholarly performance when instructed based on gender across various levels when exposed to instructional methods, thereby acknowledging gender differences (Misan-Ruppee, Obro & Akpochafo, 2023). According to Ifeakor's (2015) study, there was a notable disparity in cognitive scholarly performance between boys and girls, with boys demonstrating higher levels of scholarly performance than their girls peers. Nnamani & Oyibe (2016) ascertained the relationship between gender and social studies students' scholarly performance in secondary school. The study concluded that the average success score of female pupils surpassed that of male pupils.

Faisal, Shinwari & Hussain (2017) explored gender effect on students' scholarly performance, specifically in Pharmacology examinations, and reported no significant disparity or difference observed in students' scholarly performance. The study conducted by Abdu-Raheem (2017) studied the impact of gender on the scholarly performance of pupils in the South-West region of Nigeria. The sample population comprised 2,305 pupils. The Chi-Square test was applied for hypotheses testing. The study indicated no significant disparity or variance in students' scholarly performance with respect to students' gender. According to Ogheneakoke, Benike, & Obro (2018), there is an initial parity in students' scholarly performance between males (boys) and females (girls). However, a noticeable divergence or variance occurs as students progress to higher grade levels. Girls tend to be more inclined towards language arts, whereas boys demonstrate a heightened preference for social sciences and sciences. Obro (2023) surveyed whether innovative instructional methods would significantly increase students' scholarly performance. In a quasi-experimentation study, after experimentation, the results showed no significant gender influence on the scholarly performance of students.

3. Research Question

3.1 Does RPT affect the Social Studies students' scholarly performance?

3.2 Does gender affect Social Studies students' scholarly performance instructed with RPT instructional method?

4. Research Objectives

This study aims to 1) examine Reciprocal Peer Tutoring (RPT) effect on students' scholarly performance and 2) whether students' gender would influence students' scholarly performance.

5. Hypotheses

5.1 Implementing RPT will not significantly affect social studies students' scholarly performance.

5.2 Students instructed with RPT will not significantly differ in their scholarly performance by gender.

6. Methodology

The research employed a quasi-experimentation approach. The chosen instructional method for the treatment group is RPT (I). Concurrently, the lecture/traditional instructional method

was adopted for the second group (II) (control group). Thus, the treatment/experimental group underwent the designated treatment, while the lecture/control group did not get any treatment. Consequently, the variations/disparities in the posttest/post-learning or study outcomes will be ascribed to the intervention provided.

One hundred seventy-three (173) students from the Upper Basic 8 level were involved in the study. The students were carefully chosen in a multistage approach at three levels, employing the balloting technique. Ninety-eight (98) students were carefully chosen to partake in the RPT group, while seventy-five (75) students were allotted to the lecture/control group.

7. Research Instrument

The research tool employed in this study is the Scholarly Performance Test (SPT). The SPT consisted of a total of fifty (50) multiple-choice items, all of which were centred around various social studies subjects. The examination items encompassed the following issues: children and women trafficking, media representation, and detrimental cultural customs. During the test development process, a blueprint was created and employed.

7.1 Instrument administration

The duration of the experiment was six weeks. Following the established protocol, the procedure of participant selection and subsequent assignment of the instructional method was carried out. Students' selection into the experimental group and the control group was through random allotment using electronic random number generator. Pretest (SPT) was administered and subsequently, instructional interventions were implemented utilising the designated pedagogical approach as the control/intervention method. The experimental/treatment (Group I) and control group ((Group I) received same social studies concepts instruction. The experimental group students received instructions through the RPT method, while the control group students received instruction with the traditional lecture method.

7.2 Data Analysis

The mean statistical instrument was utilised to provide and address the study research questions. The mean statistical instrument facilitated and used to show the differentiation (mean/average advantage) in scholarly performance between the RPT group and the traditional instructional method group, and categorisation of each group in accordance with scholarly performance. The statistical technique of Analysis of Covariance (ANCOVA) was employed to test the hypotheses.

8. Research Results

RQ1: Does RPT affect the Social Studies students' scholarly performance?

Table 1 Mean on RPT effect on Students' Scholarly Performance

Teaching Strategy	Pretest		Posttest	Mean Advantage
	N	X	X	
RPT	96	12.44	18.10	5.66
Traditional Method	77	11.52	13.20	1.68
Total	173	11.98	15.65	3.67

Table 1 shows that prior to the use of RPT (experimental) (pretest) in the treatment group, the average score was 12.44. The traditional instructional method has a pretest of 11.52. This is less than that of the RPT (treatment group). At posttest (after experimentation), the average score for the RPT was 18.10 from 12.44. The posttest average score indicates a sizable or substantial increase from the pretest. It was a similar improvement for the traditional instructional method from a pretest average score of 11.52 to 13.20. But in comparison with the RPT group, it was low. The result also establishes that the mean/average advantage was 5.66 for the RPT instructional method and 1.68 for the traditional instructional method. The average score points to the fact that students instructed using RPT instructional method achieved better scholarly performance than those instructed using the traditional instructional method. This thus, indicates that students performed better in favour of RPT group than the traditional instructional method group. Hence, implementing RPT as an instructional method enhanced social studies students' scholarly performance better than the traditional instructional method.

RQ2: Does gender affect Social Studies students' scholarly performance instructed with RPT instructional method?

Table 2 Mean of Students Scholarly Performance by Gender

Group	RPT		Traditional Method	
	Male	Female	Male	Female
Gender	47	49	37	40
Pretest Mean(X)	11.97	10.58	9.64	9.88
Posttest Mean(X)	18.39	11.77	10.84	10.46
Mean/Average Advantage	6.42	0.97	1.20	0.58

Table 2 displays the mean/average of the scholarly performance scores categorised in relation to gender. It indicates that male students instructed with RPT obtained was 6.42 while their female counterparts had an average score of 0.97. Also, the mean/average of male students subjected to traditional method was 1.20, while the female students obtained an average advantage of 0.58. These results showed that in the RPT group, the male students had a higher average advantage than the female students, while in the traditional method group, the male students had higher average advantage than the female students.

Hypothesis 1 (H01): Implementing RPT will not significantly affect social studies students' scholarly performance.

Table 3 Summary of ANCOVA on effect of RPT Instructional Method on Students' Scholarly Performance

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	938.726 ^a	2	388.667	34.123	0.00
Intercept	545.814	1	545.814	54.334	0.00
Pretest	525.722	1	525.722	56.778	0.00
RPT *	323.468	2	162.133	14.612*	0.00
Error	1554.735	96	12.345		
Total	44087.12	97			
Corrected Total	2484.338	98			

P < 0.05

Table 3 presents the scholarly performance of the posttest of students instructed or taught with RPT, as analysed using ANCOVA. The result in the table established that the RPT instructional method on students' scholarly performance is significant ($F(2, 96) = 14.612, p = .000$). Based on this finding, the hypothesis (H01) is rejected. This finding shows that implementing RPT as a social studies classroom instructional tool enhanced students' scholarly performance.

Hypothesis 2 (H02): Students instructed with RPT will not significantly differ in their scholarly performance by gender

Table 4 Summary of t-test on Gender Effect on Students' Scholarly Performance

Variable	N	Mean/ average	SD	df	t-cal	T-critical
Male	89	18.39	3.47	185	2.88	1.98
Female	84	11.77	4.00			

P < 0.05

Table 4 presents a t-test analysis, which compares the mean scholarly performance scores of students coached with the RPT instructional method in relation to gender. The calculated t-value of 2.88 exceeds the critical t-value of 1.98. On this basis, hypothesis (H03) is thus rejected. This finding established a significant or notable disparity in the scholarly performance of students subjected to RPT with regard to gender favourable to male students.

9. Results and Discussion

The result/finding of hypothesis one of this research study indicates a significant or notable effect on students' scholarly performance when RPT instructional method was applied. This finding concurs with Topping (2016), AbdulRaheem, Yusuf, Yusuf, & Odutayo (2017), Olulowo, Ige, & Gwoke (2020), Muhammad, Abdullah & Osman (2020) and Odesa & Ogheneakoke (2023), who stated that RPT had a significant or notable effect on students' scholarly performance. As an instructional method, RPT is a promising approach for addressing the multifaceted students' scholarly and social needs with varying learning abilities in mainstream classrooms while minimising any negative impact on other students. Odesa (2023) argues that positive outcome can be achieved when students collaborate with teachers to support underachieving students. This discovery further supports the findings of Alegre, Moliner, Ana Maroto, & Lorenzo-Valentin (2020), Ehirheme & Eze (2021), Nbame (2022), and Longjohn & Osila (2022) who, in their study on RPT instructional method established that RPT enhances students' scholarly performance; hence students feel comfortable and open as they interact or interrelate with their mates/peers. RPT allows participants to become conscious of their strengths and weaknesses.

However, this study's finding contrast the discoveries of Ejimaji & Emekene (2011) and Solomon & Crowe (2001) regarding the efficacy of RPT teaching strategy. They reported no significant effect on students' scholarly performance.

The result and finding of hypothesis two indicate a significant disparity/difference in students' scholarly performance by gender when instructed using RPT. This finding supports the research of Nnamani & Oyibe (2016), Mwihi (2020), Ani, Kalu, Iketaku & Obodo (2020), and Misan-Ruppee, Obro, & Akpochofo (2023), who reported a significant variance or difference in students' scholarly performance by gender. This indicated that male pupils benefited significantly from the RPT instructional method in terms of their scholarly performance. This study conclusion contradicts those of Fatokun, Egya, & Uzoechi (2016), Faisal, Shinwari, & Hussain (2017), Olulowo, Ige & Gwoke (2020), Osman (2020), Ani, Obodo, Ikwueze, & Festus (2021), Ude & Onah (2022) and Obro (2023) who concluded that gender does not have a role in students' scholarly performance.

10. Conclusion

The research findings revealed a significant RPT instructional effect on social studies students' scholarly performance. Moreover, there were notable disparities in the students' scholarly performance in relation to gender, with male students demonstrating a more favourable scholarly performance. The research findings indicated that the utilisation of the RPT instructional method resulted in a significant enhancement of students' scholarly performance. Therefore, the study confirmed the efficacy of RPT in boosting students' scholarly performance. The use and adoption of the RPT instructional method resulted in improved scholarly performance for students. Furthermore, the study determined that the influence of students' gender significantly affects their scholarly performance.

11. Recommendations

- 11.1 Social Studies instructors/teachers should incorporate the RPT teaching approach to cultivate dynamic and engaged learning experiences.
- 11.2 The provision of comprehensive training programmes for Social Studies instructors/teachers, with a specific focus on the appropriate use and incorporation of innovative instructional methodologies, should be facilitated by the government through the Ministry of Education.
- 11.3 Providing an enriched learning environment by the government is crucial to effectively utilisation/application of novel instructional methods such as RPT.
- 11.4 RPT should be adopted in classroom instruction to improve social studies students' scholarly performance, taking cognisance of students' gender.

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