

Efficacy of Peer Tutoring Instructional Strategy on Students' Academic Achievement in Social Studies in Onitsha Education Zone

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Abstract

This work explored how peer tutoring can impact Social Studies students' academic achievement, using two formulated research questions and corresponding null hypotheses. Employing a quasi-experimental design specifically, a pretest, posttest non-equivalent control group, two intact classes of a sample size of 137 JSS II students drawn through a multistage sampling were involved in the study. Through the researchers' developed Social Studies Achievement Test (SSAT) instrument, data were gathered and analyzed using mean (\bar{x}) and standard deviation (σ) for the research questions and Analysis of Covariance (ANCOVA) for the hypotheses. Results showed that students taught Social Studies using peer tutoring differed significantly from those taught using the lecture method in terms of achievement ($p < .05$), and the difference for gender was not significant statistically ($p > .05$) in the experimental group. Accordingly, the study recommends that teachers should participate in professional development programs focused on effectively implementing peer tutoring strategies.

Keywords: Achievement, Instructional strategy, Lecture method, Peer Tutoring, Social Studies.

Introduction

Learning outcome of students in Social Studies as shown in their academic achievement within the Onitsha Education Zone has consistently been below average, often linked to over-reliance on teacher-centered strategies that may not effectively engage learners. Frequent use of strategies that do not enhance classroom interaction encourages passive learning and could lead to low academic achievement. Thus, emphasis has been laid on the need to encourage meaningful interaction among learners through innovative instructional strategies such as peer tutoring, aimed at improving students' comprehension and achievement in Social Studies. By promoting peer-to-peer collaboration, this strategy seeks to establish an interactive learning environment that encourages active involvement, critical analysis, and enhanced knowledge retention among students. This study's findings are anticipated to offer evidence-based insights for educators and policymakers, advocating the integration of peer tutoring as a supplementary instructional strategy to boost academic success in Social Studies.

Social Studies plays a crucial role in the school curriculum by preparing students with the essential knowledge, skills, and values to actively and responsibly engage as citizens. According to Mezieobi and Morah (2022), it serves as a strategic method for fostering socio-civic competence, enhancing learners' human capacities, and promoting both value orientation and re-orientation. This interdisciplinary subject integrates concepts from various social sciences, including Geography, Economics, and Political Science, to develop civic competence (Adeyemi, 2012). Alberta Education (2015) describes Social Studies as a subject aimed at equipping students with the ideal learning required to become responsible citizens who contribute to addressing societal issues. Ikwuka and Onimisi (2024) defined Social Studies as a programme designed to inculcate the crucial knowledge, morals, skills, behaviour, and actions important for effective interpersonal relationships and meaningful societal participation.

The incorporation of Social Studies into Nigeria's educational framework, as in other nations, was driven by the need to address societal demands and aspirations while leveraging education to foster national integration (Mezieobi, Nzokurun & Mezieobi, 2014). According to the National Curriculum, the objectives of Social Studies are designed to enable students to: cultivate the skills required to adapt to a dynamic environment; become responsible, disciplined citizens who are committed to societal progress; internalize appropriate values; develop an understanding and appreciation of others, their varied cultures, histories, and the core elements that define humanity; enhance their ability to recognize the multifaceted nature of human existence across diverse contexts (cultural and social); and promote cooperation and security grounded in their personal identity (Nigerian Educational Research and Development Council, NERDC, 2007).

In Nigeria, Social Studies is integral to promoting national unity, encouraging social responsibility, and tackling societal issues such as corruption, ethnic tensions, and religious intolerance (Ololobou, 2010), as well as drug abuse (Banjo, Ajayi, & Kumolalo, 2022). Considering its vital role in shaping students' civic and moral perspectives, the subject demands teaching strategies that actively involve learners and enhance their academic performance. However, despite its significance, students' performance in Social Studies in Nigeria, particularly within the Onitsha Education Zone, remains a persistent challenge for educators and policymakers. Several students struggle with the subject, a situation attributed to factors like the use of ineffective teaching methods (Bello, 2015 & Eze, 2019). Traditional teaching techniques, such as the lecture method, often dominate classrooms, resulting in passive learning and minimal student engagement (Adamu, 2017). This highlights the need for innovative teaching strategies that encourage active participation, foster collaboration, and enhance interaction among students. Such methods create opportunities for discussions, mutual understanding, respect, and open communication, which contribute to meaningful learning and improved academic outcomes (Morah et al., 2023). Peer tutoring, a strategy where students teach and learn from their peers, stands out as one such approach.

Peer tutoring exists in several forms, each providing distinct advantages. Crouch and Mazur (2017) identify traditional peer tutoring as a common

model, where a more knowledgeable student helps peers grasp particular subject matter. Similarly, Falchikov and Boud (2018) describe collaborative peer tutoring, which involves students working in pairs or small groups to address problems collectively, thereby promoting active engagement and shared accountability. Reciprocal peer tutoring, noted by Kim and Goppelt (2015), allows students to alternate roles as tutor and learner, enabling a two-way exchange of knowledge. Additionally, Khan and Khan (2017) emphasize online peer tutoring, which utilizes digital platforms to connect tutors and learners, offering greater convenience in terms of time and location. These varied strategies equip educators with flexible tools to meet diverse learning needs and preferences, creating a vibrant educational setting. This study employed reciprocal peer tutoring to ensure every student in the class had the opportunity to serve as a tutor.

Peer tutoring is widely acknowledged as a highly effective approach for promoting cooperative learning, boosting motivation, and deepening comprehension of subject matter (Topping, 2016). In this instructional setting, students alternate between roles as tutors and tutees, enabling the reinforcement of knowledge and skills through mutual teaching (Fuchs & Fuchs, 2018). This strategy stresses the relevance of social interaction which aligns with the theory of social constructivism (Vygotsky, 1978). The effectiveness of peer tutoring has been validated across diverse subjects and educational environments. Research indicates its positive impact on student performance especially in other subject areas (Parker, Tariq, & Smith, 2023; Fuchs & Fuchs, 2018, and Ullah, Tabassum, & Kaleem, 2018), particularly when employed as a complement to traditional teaching practices (Goodlad & Hirst, 2017). Despite these findings, there is a notable lack of research towards finding the efficacy of peer tutoring instructional strategy in Social Studies, especially in the Onitsha Education Zone. This gap suggests that insufficient emphasis has been placed on Social Studies as a subject requiring collaborative learning and interaction among learners. Considering the proven success of peer tutoring in other disciplines and regions, it becomes essential to investigate its impact on Social Studies in terms of academic achievement. The study anchored on two questions.

1. What is the mean achievement scores of students taught Social Studies with peer tutoring and those taught with lecture method?

2. What is the influence of gender on the mean achievement score of students taught Social Studies with peer tutoring strategy?

Hypotheses

Null hypotheses were stated to guide the study, which were tested at 0.05 level of significance.

1. The students mean achievement scores of students taught Social Studies with peer tutoring strategy and those taught with lecture method are not statistically different.
2. The mean achievement scores of male and female students taught Social Studies with peer tutoring strategy do not differ significantly.

Methodology

In this study a pretest, posttest non-equivalent control group type of quasi-experimental research was considered appropriate as the design due to the involvement of intact classes within the selected schools. Onitsha Education Zone situated in Anambra State was the study location, comprising 26 public secondary schools—6 single-gender schools and 20 co-educational ones. 4,688 Upper Basic II (JSS 2) Social Studies students was the study's population, made up of 1,948 males and 2,740 females.

A total of 137 JSS 2 students from two co-educational public secondary schools formed the sample size, and drawn through a multistage sampling procedure. Through, purposive sampling co-educational schools were drawn, as the study considered gender as a variable, necessitating the inclusion of both male and female students. Randomly, two schools were chosen from the co-educational schools using balloting without replacement. Within each selected school, one JSS 2 class was randomly selected. One intact class, comprising 76 students (26 males and 50 females), was allotted to peer tutoring group, where students were exposed to Social Studies content using peer tutoring while the second class totaling 61 students (31 males and 30 females), served as the control group. To evaluate whether gender influences students' achievement, results generated from the peer tutoring class were the only ones analyzed, including 26 males and 50 females, totaling 76 students.

Social Studies Achievement Test (SSAT) developed by the researchers served as the instrument for collecting data. The SSAT comprised multiple-choice questions of 25 items, each with options labeled A to D. The content areas were derived from the Junior Secondary School 2 (JSS 2) Social Studies syllabus on the topic "Meaning and Consequences of Drug Abuse and Harmful Substances". This particular content was chosen because drug abuse is mostly found among teenagers and they can interact among themselves on the issue using appropriate teaching strategy. Such interaction would lead to improved achievement on the content. A test blueprint guided the instrument development and it was validated by experts to certify its suitability. The reliability coefficient of SSAT was determined through a pilot study involving 20 JSS 2 students in the Awka education zone. The reliability coefficients of the test was ascertained using the Kuder-Richardson Formula 20 (K-R20), resulting in 0.86 index. The instrument was dichotomously scored. Each question answered correctly was awarded two (2) marks, making fifty (50) marks.

The experimental procedure took place within four weeks. Firstly, permission was obtained from the principals of the selected schools to conduct the study. A JSS 2 Social Studies teacher was chosen from each participating school and received three days of training. The training involved using the prepared lesson plans for both the peer tutoring and lecture methods (on days 1 and 2), followed by a mock teaching session to observe the implementation process (on day 3). A pre-test was administered using the SSAT before the experiment commenced. After the experiment, a post-test was conducted using a reshuffled SSAT. The stated research questions were examined using mean and standard deviation with the decision rule at 2.50. The highest obtainable score for the test was fifty (50), and students who scored 25 and above were deemed to have good results while scores below 25 were considered below average. ANCOVA was employed to test the hypotheses at a significance level of 0.05. Any probability value equal to or greater than 0.05 was not significant and the null hypothesis was therefore not rejected. Also, any probability value lower than 0.05 was significant and the null hypothesis was therefore rejected.

Results

Results are presented in tables below:

Table 1: Achievement scores of students taught Social Studies using Peer Tutoring and Lecture method

Group	Pre-Test			Post-Test		Mean Difference
	N	\bar{x}	SD	\bar{x}	SD	
Peer Tutoring	76	14.38	2.59	18.42	2.68	4.04
Lecture Method	61	14.23	2.64	15.21	2.76	0.98

Table 1 shows the pretest mean achievement scores for peer tutoring: 14.38, with ($\sigma=2.59$). The pretest mean achievement score for lecture method: 14.23, with ($\sigma=2.64$). For the posttest, the peer tutoring

group had 18.42, with ($\sigma=2.68$) whereas the lecture group had 15.21, ($\sigma=2.76$). Peer tutoring group showed a mean gain of 4.04 in contrast to 0.98 for lecture group.

Table 2: Comparison of pretest and posttest achievement scores of peer tutoring using Analysis of Covariance

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Dec.
Corrected Model	1253.180	2	626.590	914.499	.000	
Intercept	29.809	1	29.809	43.506	.000	
PreTest	904.943	1	904.943	1320.751	.000	
Treatment	315.971	1	315.971	461.155	.000	Sig.
Error	91.813	134	.685			
Total	40904.000	137				
Corrected Total	1344.993	136				

Table 2 showed that the probability linked to the computed F value (461.155) regarding the influence of the peer tutoring and lecture method on achievement of students in Social Studies is 0.000 ($p < .05$). The null

hypothesis is hence rejected. The study therefore concludes that a significant difference exists in the mean achievement scores of students in both groups (peer tutoring strategy and lecture method).

Table 3: Analysis of male and female students' achievement scores in Social Studies for the experimental group (peer tutoring)

Gender	Pre-Test			Post-Test		Mean Difference
	N	\bar{x}	SD	\bar{x}	SD	
Male	26	14.44	2.46	16.75	2.77	2.31
Female	50	14.22	2.71	17.16	3.39	2.94

Table 3 indicates the pretest ($\bar{x}=14.44$) for males, with a ($\sigma=2.46$). The pretest ($\bar{x}=14.22$) for females, with a ($\sigma=2.71$). For the posttest, the males ($\bar{x}=16.75$), with a ($\sigma=2.77$), whereas the females had a

post-test ($\bar{x}=17.16$), with a ($\sigma=3.39$). Male students showed a mean gain: 2.31 compared to the 2.94 of the female students.

Table 4: Analysis of Covariance of the effect of Peer Tutoring on male and female students' achievement in Social Studies.

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Dec.
Corrected Model	487.273	2	243.636	347.010	.000	
Intercept	42.265	1	42.265	60.197	.000	
PreTest	484.451	1	484.451	690.001	.000	
Treatment	.000	0	.	.	.	
Gender	1.496	1	1.496	2.131	.149	Not Sig.
Treatment * Gender	.000	0	.	.	.	
Error	51.253	73	.702			
Total	26328.000	76				
Corrected Total	538.526	75				

The findings shown in Table 4 indicate that the probability linked to the computed F value (2.131) is 0.000 as regards gender. Given that the p- value of 0.149 ($p < .05$), the null hypothesis is upheld. The conclusion drawn from the results is that no significant difference occurs among both genders when taught Social Studies using the peer tutoring instructional strategy.

Discussion of Findings

The study's findings showed that students in peer tutoring differed in their achievement from those who were taught with the lecture method, with peer tutoring showing higher mean achievement. This result shows that peer tutoring fosters a more effective learning environment that promotes learning and improves achievement. This advantage likely stems from the collaborative and interactive nature of peer tutoring, where students actively engage with the material by teaching and learning from one another. Through this process, learners receive immediate feedback, clarification of concepts, and reinforcement of knowledge, which enhances understanding. In contrast, conventional teaching methods like lecture method, often involve passive learning, where students may not engage deeply with the content. Peer tutoring also promotes a supportive and less intimidating learning atmosphere, encouraging students to ask questions and participate without the fear of judgment from teachers. This active involvement in the learning process boosts students' motivation, self-confidence, and academic achievement, making peer tutoring a more effective instructional strategy than traditional methods. This finding is in line with the finds of Topping and Ehly (2016) and Adeyemi (2012). However, Bello (2015) found no significant difference

in achievement, suggesting that the ineffectiveness of peer tutoring may have resulted from insufficient training and structure for participants.

Findings also showed the female students subjected to the experiment achieved higher than their male counterparts, although not significant. This suggests that gender dynamics may influence classroom interactions. This result may be attributed to several factors, including communication styles and socialization differences. Female students often exhibit stronger interpersonal skills and are more likely to engage in cooperative behaviors, which can enhance the peer tutoring experience. In peer tutoring settings, these skills may enable female students to create more supportive and collaborative interactions, fostering a deeper understanding of the material. Additionally, female students may communicate more than their female counterparts in asking questions, leading to better engagement and ultimately higher academic achievement. In contrast, male students may be less inclined to seek help or collaborate, potentially resulting in lower gains in understanding the subject matter. These findings agree with the views that students who are female achieved higher than male students within the same innovative instructional strategies group (Nnamani & Oyibe, 2017) although other studies reported that no significant difference existed in their achievement (Nicol et al., 2015; Schneider et al., 2017), whereas some showed male students achieving higher (Yakubu, 2021), suggesting gender differences in achievement of students (Ugwonna et al., 2020) in instructional strategies.

Conclusion

The findings underscore the significant impact of peer tutoring in increasing academic achievement in

Social Studies compared to lecture method, emphasizing its effectiveness in promoting active engagement and collaborative learning. Furthermore, while the higher scores observed among female students in peer tutoring were not statistically significant, they highlight the potential of this approach to create inclusive learning environments that harness students' interpersonal skills and encourage equal participation. From the findings, the study concludes that peer tutoring is a valuable instructional strategy for fostering social interaction, offering a practical solution to improving learning outcomes in both genders.

Recommendations

From the findings of this study, the following recommendations were made;

1. Teachers should participate in professional development training sessions focused on effectively implementing peer tutoring strategies, including how to pair students based on their strengths and weaknesses to enhance the learning experience.
2. School administrators should develop structured peer tutoring programs within the curriculum that outline clear objectives, session frequency, and expected outcomes to ensure consistency and effectiveness.
3. Teachers should incorporate collaborative learning activities in their lesson plans, emphasizing the key importance of peer interaction.

References

- Adamu, M. (2017). Comparative analysis of the impact of conventional and innovative instructional strategies on students' academic achievement in Social Studies. *Journal of Educational Research and Development*, 8(3), 22-35.
- Adeyemi, B. A. (2012). The teaching of Social Studies for critical thinking and citizenship in Nigeria. *International Journal of Humanities and Social Science*, 2(14), 65-72.
- Alberta Education (2015). *Introduction to Social Studies*. US: Alberta Education Publication.
- Banjo, O. O., Ajayi, O., & Kumolalo, B. F. (2022). Drug Addiction a Growing Social Problem. *Springer EBooks*, 1–22. https://doi.org/10.1007/978-3-030-68127-2_283-1
- Bello, T. (2015). Factors affecting academic performance in secondary school Social Studies in Nigeria. *Nigerian Journal of Education and Social Studies*, 6(2), 88-101.
- Crouch, C. H., & Mazur, E. (2017). Peer instruction: Ten years of experience and results. *American Journal of Physics*, 77(9), 970-977.
- Eze, P. (2019). Trends in students' academic achievement in Social Studies: A case study of Onitsha Education Zone. *Journal of Educational Development*, 5(1), 45-59.
- Falchikov, N., & Boud, D. (2018). *Peer learning in higher education: Learning from & with each other*. Routledge.
- Fuchs, D., & Fuchs, L. S. (2018). Peer-assisted learning strategies: Promoting academic achievement in secondary education. *Journal of Special Education*, 32(2), 95-107.
- Goodlad, S., & Hirst, B. (2017). Peer tutoring: A guide to learning by teaching. *Routledge*.
- Ikwuka, O. I. & Onimisi, R. (2024). Effect of PowerPoint Instructional Package on Secondary School Students' Academic Achievement in Social Studies in Njikoka LGA, Anambra State, Nigeria <https://www.innovationforever.com/article/JMER20230175>. DOI: 10.53964/jmer.2024004
- Khan, A., & Khan, M. (2017). Online peer tutoring system for computer science education. *Journal of Computer Assisted Learning*, 33(6), 638-654.
- Kim, J., & Goppelt, D. (2015). Effects of reciprocal peer tutoring on academic achievement in mathematics and science subjects for secondary students with disabilities. *Exceptional Children*, 81(3), 311-327.
- Mezieobi, K. C. & Morah, J. N. (2022). Promoting social studies pedagogic practices in Nigerian secondary schools: implications for Nigeria's educational system. *Social Spectrum*, 19(14), 36 - 46
- Mezieobi, D.I., Nzokurun, J.C., & Mezieobi, S.A. (2014). Classroom management and teaching of Social Studies. *Journal of Education and Practice*, 5(16), 62-68.
- Morah, J.N and Eke, C.J (2023) Influence of Teacher-Student Relationship on Secondary School Students' Study Habits in Enugu State. *Journal of Educational Research*, 8 (1),368 ISSN: 2354-2772



- NERDC (2007). *Universal Basic Education (UBE) curriculum for junior secondary school Social Studies*. Abuja: NERDC Publication.
- Ololobou, Y. P. (2010). The relevance of Social Studies in achieving Nigeria's national objectives. *Journal of Social Studies Education in Africa*, 15(1), 19-30.
- Parker, E., Tariq, A., & Smith, A. (2023). Exploring the Effectiveness of Peer Tutoring in English Language Learning Among Young Learners. *Research Studies in English Language Teaching and Learning*, 1(2), 103–112. <https://doi.org/10.62583/rseltl.v1i2.13>
- Topping, K. J., & Ehly, S. W. (2016). Peer-assisted learning: A practical guide for teachers. *Psychology Press*.
- Ullah, I., Tabassum, R., & Kaleem, M. (2018). Effects of Peer Tutoring on the Academic Achievement of Students in the Subject of Biology at Secondary Level. *Education Sciences*, 8(3), 112. <https://doi.org/10.3390/educsci8030112>
- Ugwonna, G.O., Ezeudu, S.A., Nwaubani, O.O., Utoh-Ofong, A.N., Onyeausi, O.C., Aroh, P.N., Ome, S.O., Ezema, L.C., Agbo, C.N., Offor, C.C. & Nwokenna, E.N. (2020). Gender differentials in the Use of Instructional Models in Enhancing Adolescents' Interest and Achievement in Voter Education Contents of Senior Secondary School Government Curriculum. *Global Journal of Health Science*, 12(5), 121-138. DOI:10.5539/gjhs.v12n5p121. <https://ccsenet.org/journal/index.php/gjhs/article/view/0/42699>
- Yakubu, P. A. (2021). Influence of Gender on Students' Academic Achievement in Science and Technology Education When Taught Using Innovative Strategies. *AJSTME*, 7(1): 14-20, https://ajstme.com.ng/admin/img/paper/14%20-%2020%20AJSTME6_2-17.pdf