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DRIVING ACADEMIC ACHIEVEMENT THROUGH PEER MENTORSHIP: HOW AGE AND GENDER SHAPE OUTCOMES IN LOW SOCIO-ECONOMIC SECONDARY SCHOOLS IN IDEMILI NORTH, ANAMBRA STATE

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Abstract

This study examined the effect of a peer mentorship programme on academic achievement among secondary school students from low socio-economic backgrounds in Idemili North Local Government Area, Anambra State, Nigeria. A quasi-experimental design was employed with 65 students, comprising 36 in the experimental group who received an eight-week peer mentorship intervention and 29 in the control group who continued with the standard curriculum. Academic achievement was assessed using pretest and posttest scores in English and Mathematics. The moderating roles of age and gender were also investigated. Findings revealed increase in achievement for the experimental group (M gain = 10.62) compared with the control group (M gain = –0.42), with ANCOVA confirming a significant group effect, $F(1, 61) = 5.01$, $p = .029$. Age significantly moderated outcomes, $F(4, 53) = 4.32$, $p = .004$, with younger students (aged 9–12) showing the largest gains (M gain = 17.50). Gender did not significantly moderate outcomes, $F(2, 57) = 0.94$, $p = .398$, indicating equitable benefits for males and females. Grounded in Social Cognitive Theory and the Effectively Maintained Inequality hypothesis, the findings suggest that peer mentorship is a promising strategy for enhancing achievement and promoting educational equity in disadvantaged contexts. Practical recommendations include implementing age-sensitive mentorship structures and ensuring gender-equitable mentor–mentee pairings to maximise impact.

Keywords: Peer mentorship, Academic achievement, Low socio-economic background; Age moderation, Gender equity.

Introduction

Achieving equitable academic outcomes remains a global challenge, particularly in developing contexts where socio-economic disadvantage often undermines learning. In Nigeria, the effects are pronounced, as students from low socio-economic backgrounds face persistent barriers that limit their educational success. In Anambra State, the decline in performance is evident: the 2024 West African Senior School Certificate Examination (WASSCE) recorded a 7.4% drop

in pass rates, while a 23% dropout rate highlights the depth of systemic inequities (Nnaike, 2024; UNICEF, 2023). Within Idemili North Local Government Area (LGA), these issues are even more acute, where students from low socio-economic status (SES) households grapple with limited access to learning resources, inadequate emotional support, and financial hardship that collectively restrict their academic achievement (Ogbuagu, 2024; Nwosu *et al*., 2023).

Academic achievement, often measured through examination scores, classroom participation, and overall grades, serves as a critical marker of educational progress and readiness for future opportunities (Barowski, 2023). However, among low SES students, achievement is disrupted by a range of social and psychological factors, including reduced motivation, lack of role models, disengagement, and stress associated with poverty (Vadivel *et al*., 2023). While interventions such as the Soludo-led scholarship initiative in Anambra State attempt to address financial barriers, they do not fully account for the socio-emotional and relational dimensions of learning that shape long-term success (UNICEF, 2023).

Peer mentorship has emerged as a promising approach to bridging this gap by providing both academic guidance and emotional support (Tzani-Pepelasi *et al*., 2019). Unlike traditional teacher–student dynamics, peer mentorship creates a collaborative learning environment where students support one another, share strategies, and build resilience (Tzani-Pepelasi *et al*., 2019). Theoretical perspectives such as Bandura's self-efficacy theory suggest that observing and interacting with capable peers strengthens students' beliefs in their own abilities (Laka & Suryanto, 2024), while academic socialisation theory underscores the influence of peer relationships in shaping positive attitudes toward learning (Shao & Kang, 2022). Research has increasingly shown that peer mentorship fosters motivation, concentration, and improved academic performance (Rose, 2023).

Nevertheless, the effectiveness of such programmes is not uniform. Evidence suggests that demographic factors such as age and gender may moderate how students benefit from mentorship (Lee *et al*., 2022; Jain, Shauran & Jain, 2020). Developmental differences shape responsiveness to guidance, with younger adolescents often more receptive to peer influence (Yu *et al*., 2025), while older students benefit from more structured, goal-oriented mentoring (Arnette & McIntyre, 2024). Similarly, gendered expectations and interaction styles may influence how mentorship outcomes unfold, though findings have been inconsistent (Jacob *et al*., 2020). Despite these insights, empirical studies examining how age and gender shape peer mentorship outcomes in Nigerian low SES contexts remain scarce.

Against this backdrop, the present study investigates the impact of a peer mentorship programme on academic achievement among secondary school students from low SES backgrounds in Idemili North LGA, Anambra State. By paying attention to the moderating roles of age and gender, the study not only fills a critical gap in existing literature but also provides practical guidance for developing targeted interventions.

The study was guided by the following objectives:

1. To evaluate the impact of a peer mentorship programme on academic achievement among secondary school students from low socio-economic backgrounds in Idemili North LGA, Anambra State.
2. To determine whether gender moderates the effect of peer mentorship on the academic achievement of students.
3. To examine whether age moderates the effect of peer mentorship on the academic achievement of students.

Literature Review

Academic Achievement: Definitions and Importance

Academic achievement refers to the extent to which a student demonstrates mastery of knowledge, skills, and competencies in academic subjects. It is a multidimensional construct that encompasses cognitive skill development, subject-specific knowledge acquisition, and the application of learned concepts in real-life contexts (Al-Abyadh *et al*., 2022). Academic achievement is typically assessed through standardised tests, examination scores, course grades, grade point averages (GPAs), and other forms of assessment that serve as indicators of student progress, learning gains, and overall educational attainment (Rimfeld *et al*., 2019).

Scholars have consistently highlighted that individual characteristics such as cognitive abilities, motivation, study habits, and self-regulation play an important role in shaping students' academic achievement (Estevez *et al*., 2021; Jafari *et al*., 2019; Steinmayr *et al*., 2019). Beyond the individual level, school-related factors, such as teacher quality, instructional practices, classroom climate, and access to academic support resources, also contribute significantly to achievement outcomes (Hanaysha *et al*., 2023; Sahoo & Pany, 2021). Effective teaching methods, clear learning objectives, formative feedback, and differentiated instruction are among the practices shown to enhance student performance.

Contextual influences outside the classroom are equally critical. Socio-economic status, parental education levels, and family involvement in a child's learning process have been widely recognised as predictors of academic achievement (Munir *et al*., 2023). Students from low socio-economic backgrounds often face disadvantages such as limited access to resources, lower levels of parental support, and greater exposure to stressors, which negatively affect their academic outcomes. Interventions designed to improve achievement

frequently focus on fostering engagement, providing targeted academic support, cultivating effective study skills, and strengthening home–school partnerships (Estevez *et al*., 2021). Early identification of students at risk of underachievement has also been emphasised as a means of addressing achievement gaps and ensuring more equitable outcomes.

Academic achievement extends beyond the individual, holding broader implications for societal progress. Higher levels of achievement are associated with increased access to higher education, better employment opportunities, and enhanced life satisfaction (Al-Abyadh & Azeem, 2022). As such, promoting academic achievement remains a central priority for educators, policymakers, and stakeholders because it lays the foundation for socio-economic mobility, lifelong learning, and national development (Barowski, 2023).

Peer Mentorship and Academic Outcomes

Mentoring has long been recognised as a valuable developmental relationship in education, psychology, and organisational contexts. Traditionally, mentoring involves a hierarchical relationship where a more experienced mentor guides a less experienced mentee, offering career, academic, or psychosocial support (Diggs *et al*., 2023; Koven, 2021). These relationships are often structured and formal, with defined goals such as career development, skill acquisition, or academic progression. Various models exist, including one-on-one, group, reverse, team, and virtual mentoring, each tailored to address specific developmental needs (Collier, 2023).

In contrast, peer mentoring involves reciprocal relationships between individuals at similar levels of experience or career stages. Peer mentors share knowledge, strategies, and experiences, providing both academic and emotional support (Torres, Chen & Peixoto, 2025). These relationships are usually more informal, driven by shared challenges and goals, and are particularly effective in fostering collaboration, belonging, and community (Alex, 2023). Peer mentorship

differs from peer coaching, as the latter is performance-driven and focused on immediate problem-solving, while peer mentoring is development-driven and emphasises mutual growth and support (Verlinden, 2023).

Empirical evidence has demonstrated that mentoring, particularly peer mentoring, improves academic outcomes by boosting motivation, concentration, and study skills (Springer, Scanlan & Kimble, 2025; Torres *et al*., 2025). Studies report that peer mentorship enhances self-efficacy, promotes resilience, and increases retention in educational settings (Gehreke, Schilling & Kauffeld, 2024; Malik *et al*., 2019). In low socio-economic contexts, peer mentoring provides critical non-financial support, such as encouragement, role modelling, and accountability that complements existing scholarship or subsidy schemes (Rose, 2023). Furthermore, mentoring relationships serve both career-related functions (guidance, skill development, exposure to opportunities) and psychosocial functions (emotional support, belonging, role modelling), which together foster holistic academic development (Murrell, Blake-Beard & Porter, 2021).

Despite these benefits, challenges remain. Issues such as mismatched mentor–mentee pairs, lack of clear objectives, limited training, and cultural or generational barriers can hinder the effectiveness of mentorship programmes (Reeves, 2022; Powell, 2024; Talbert *et al*., 2021). Nonetheless, when well implemented, peer mentorship has shown significant promise in addressing achievement gaps, particularly among disadvantaged learners (Venegas-Muggli, Barrientos & Álvarez, 2021).

Role of Age and Gender in Mentorship and Academic Achievement

Age and gender are important demographic variables that influence how students experience and benefit from mentorship programmes. Developmental psychology suggests that younger learners may be more receptive to mentorship because they are at formative stages of cognitive and socio-emotional development, making them more open to guidance, modelling, and academic

support (Alegre *et al*., 2020). Conversely, older students may display greater autonomy and self-regulation, which can shape the extent to which they internalise and apply mentoring strategies (Jenner *et al*., 2022). These developmental differences suggest that age can moderate the effects of peer mentorship on academic achievement.

Empirical findings on age have been mixed. Some studies report that younger students gain more from peer mentoring because of higher developmental plasticity and fewer entrenched academic deficits (Engels, Pakarinen, Lerkkanen & Verschueren, 2019; Benz and Ackermann, 2025). Others suggest relatively consistent benefits across age groups, highlighting the adaptability of peer mentoring to diverse developmental stages (Jenner *et al*., 2022). However, older students, particularly those who have repeated grades due to socio-economic challenges, may experience diminished motivation and disengagement (Martin, 2009). Peer mentoring thus offers a flexible, age-sensitive support structure that accommodates these developmental differences, enabling students to receive guidance aligned with their specific needs.

Gender is another important factor influencing school engagement and academic achievement, particularly in low socio-economic contexts. In many Nigerian communities, gender norms shape access to education, with girls often facing barriers such as early marriage, household responsibilities, and limited parental support (Nnama-Okechukwu *et al*., 2024). Boys, on the other hand, may be pressured into economic activities that pull them away from schooling (Adeleke, 2023). These disparities contribute to uneven levels of school participation and performance between male and female students. Research has shown that both genders benefit from peer mentorship, though the magnitude and type of benefits may differ. For instance, females often report psychosocial gains such as improved confidence and belonging, while males may benefit more from instrumental academic support (House *et al*., 2021; Spencer, Drew, Walsh and

Kanchewa, 2018). Other studies, however, indicate no significant gender differences (Jain, Shauran and Jain, 2020), suggesting that peer mentorship can provide equitable support when designed inclusively.

Theoretically, Social Cognitive Theory (Bandura, 1977) highlights that younger learners may benefit more from observational learning, whereas older students engage critically with mentors as collaborators. Relational Mentoring Theory (Ragins, 2016) underscores the importance of reciprocal relationships in shaping outcomes across genders, while the Effectively Maintained Inequality (EMI) hypothesis (Lucas & Byrne, 2017) posits that mentoring can help mitigate structural barriers that disproportionately affect disadvantaged groups.

Overall, age and gender are significant moderators of school engagement and achievement in the context of peer mentorship. While developmental differences and gendered experiences shape how students engage with academic opportunities, evidence suggests that mentorship remains a broadly inclusive and adaptable strategy capable of supporting diverse learners.

Methods

Research Design

The study employed a quasi-experimental non-equivalent group design with pretest and posttest measures to examine the effect of a peer mentorship programme on academic achievement among secondary school students from low socio-economic backgrounds in Idemili North Local Government Area (LGA), Anambra State. The design involved an experimental group that received the peer mentorship intervention and a control group that continued with the standard curriculum without mentorship. This approach was suitable for evaluating the programme's impact while statistically controlling for baseline differences in achievement (Toyan, 2021).

Participants

The sample comprised 65 students drawn from a population of 11,607 across 16 government-owned secondary schools in Idemili North (Planning, Research and Statistics, 2024). The experimental group consisted of 36 students (15 males, 21 females), while the control group comprised 29 students (15 males, 14 females). Participants were stratified by age into three categories: 9–12 years, 13–16 years, and 17 years and above, to allow for the examination of possible age-related moderation effects on achievement outcomes.

A multi-stage sampling technique was employed. First, purposive sampling identified two rural schools with low socio-economic characteristics, excluding urbanised areas such as Nkpor and Obosi. Second, with simple random sampling technique one school was assigned to the experimental group and the other to the control group. Third, intact JSS2 classes were selected in each school. Students in the experimental group were paired with SS2 mentors selected based on academic strength, leadership qualities, and consistent attendance. Informed consent was obtained from parents, and student assent was secured through teacher-counsellor facilitation.

Intervention

The intervention was an eight-week peer mentorship programme aimed at improving students' academic performance through structured cross-grade support. Each SS2 mentor was assigned to a small group of five JSS2 mentees. The programme was implemented in two phases:

- **Phase 1 (Week 1 – Preparation):** Orientation and training sessions were conducted for mentors and a teacher-research assistant using structured manuals. Training emphasised academic guidance, goal-setting, and ethical mentoring practices. Mentor-mentee pairs were matched according to compatibility and engaged in collaborative SMART goal-setting exercises.

- **Phase 2 (Weeks 2–7 – Mentorship Sessions):** Daily 18-minute check-ins during break periods were conducted, during which mentors supported mentees in reviewing assignments, monitoring attendance, and providing academic encouragement. Fidelity of implementation was maintained through teacher observations and weekly debriefings with mentors. The control group continued with their regular curriculum without additional mentorship.

Data Collection

Quantitative data were collected using pretest and posttest achievement scores in English and Mathematics. Standardised test instruments developed from the Nigerian secondary school curriculum were administered to both groups before and after the intervention. Demographic data, including age, gender, and parental socio-economic indicators, were also collected to enable subgroup analyses.

Data Analysis

Quantitative data were analysed using SPSS version 26. Descriptive statistics summarised demographic and baseline achievement data. Independent-samples t-tests were conducted to assess baseline equivalence between the experimental and control groups. Analysis of Covariance (ANCOVA) was used to test for significant differences in posttest achievement between groups, with pretest scores entered as covariates to control for prior differences. Moderation analyses were performed using moderated ANCOVA to examine potential interaction effects between group and gender as well as group and age. Statistical significance was set at $\alpha = .05$. Missing data were handled using imputation and sensitivity analysis to preserve the integrity of results.

Results

What are the mean achievement scores of secondary school students from low socio-economic backgrounds trained with the mentorship programme and those not trained?

Table 1: Achievement Mean Scores and Standard Deviation Based on Method

Group	N	Achievement				
		Pretest		Posttest		$\overline{x}$ gain
		$\overline{x}$	*SD*	$\overline{x}$	*SD*	
Experimental Group	36	55.60	13.33	66.22	15.23	10.62
Control Group	29	52.83	4.54	52.41	6.14	-0.42

Means and standard deviations for achievement by group are presented in Table 1. Participants in the experimental group increased from M = 55.60 (SD = 13.33) at pretest to M = 66.22 (SD = 15.23) at posttest (gain = 10.62), whereas the control group showed essentially no change (pretest M = 52.83, SD = 4.54; posttest M = 52.41, SD = 6.14). Peer mentoring produced a gain in achievement while the control group did not improve.

What is the interaction effect of peer mentorship and gender on students' academic achievement?

Table 2: Achievement Mean Scores and Standard Deviation in the Groups Based on Gender

Group	Gender	N	Achievement				
			Pretest		Posttest		$\overline{x}$ gain
			$\overline{x}$	*SD*	$\overline{x}$	*SD*	
Experimental	Male	15	60.57	9.88	72.37	9.13	11.80
	Female	21	52.05	14.52	61.83	17.29	9.78
Control	Male	15	52.40	5.46	52.00	7.18	-.40
	Female	14	53.29	3.43	52.86	5.02	-.43

Both male and female participants in the experimental condition improved; males showed slightly larger absolute gains than females. There was no improvement in the control group across gender.

What is the interaction effect of peer mentorship and age on students' academic achievement?

Table 3: Achievement Mean Scores and Standard Deviation in the Groups Based on Age

Group	Age	N	Achievement				
			Pretest		Posttest		$\overline{x}$ gain
			$\overline{x}$	*SD*	$\overline{x}$	*SD*	
Experimental	9-12	7	59.21	9.74	76.71	6.75	17.50
	13-16	24	56.38	10.96	64.71	13.39	8.33
	17 above	5	46.80	24.45	58.80	25.61	12.00
Control	9-12	10	52.80	1.55	51.60	1.84	-1.20
	13-16	10	57.80	1.40	59.60	1.90	1.80
	17 above	9	47.33	1.50	45.33	1.50	-2.00

In the experimental group, all age categories improved, with the youngest subgroup (9–12) showing the largest gain (17.50). The control group, by contrast, showed negligible or negative changes across age groups.

Hypothesis 1

There is no significant difference in the mean achievement score of secondary school students from low socio-economic backgrounds trained with the mentorship programme and those not trained.

Table 4: ANCOVA Results for Group Differences in Achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10311.533[a]	3	3437.178	108.991	.000	.843
Intercept	11.570	1	11.570	.367	.547	.006
Group	157.994	1	157.994	5.010	.029	.076
group * Achievementpre	7249.035	2	3624.518	114.931	.000	.790
Error	1923.721	61	31.536			
Total	246715.500	65				
Corrected Total	12235.254	64				

a. R^2 = .843 (Adjusted R^2 = .835)

The ANCOVA examined the effect of group (experimental vs. control) on posttest achievement while controlling for pretest achievement. The model was significant, $F(3, 61) = 108.99$, $p < .001$, $R^2 = .84$. A significant main effect of group was observed, $F(1, 61) = 5.01$, $p = .029$, indicating higher adjusted posttest achievement for the experimental group.

Hypothesis 2

Gender does not significantly moderate the effect of peer mentorship on students' academic achievement.

Table 5: Gender as a Moderator on the Effect of Peer Mentoring on Achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	10396.866[a]	7	1485.267	46.051	.000	.850
Intercept	3.227	1	3.227	.100	.753	.002
Group	182.494	1	182.494	5.658	.021	.090
group * gender	60.410	2	30.205	.937	.398	.032
group * gender * Achievementpre	6358.227	4	1589.557	49.285	.000	.776
Error	1838.388	57	32.252			
Total	246715.500	65				
Corrected Total	12235.254	64				

a. $R^2 = .850$ (Adjusted $R^2 = .831$)

A moderated ANCOVA was conducted to examine whether gender moderated the relationship between group and posttest achievement. The model was significant, $F(7, 57) = 46.05$, $p < .001$, $R^2 = .85$. However, the group × gender interaction was not significant, $F(2, 57) = 0.94$, $p = .398$, suggesting no simple moderation by gender.

Hypothesis 3

Age does not significantly moderate the effect of peer mentorship on students' academic achievement.

Table 6: Age as a Moderator on the Effect of Peer Mentoring on Achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	11067.889[a]	11	1006.172	45.682	.000	.905
Intercept	4.077	1	4.077	.185	.669	.003
Group	22.165	1	22.165	1.006	.320	.019
group * age	380.747	4	95.187	4.322	.004	.246
group * age * Achievementpre	5930.122	6	988.354	44.873	.000	.836
Error	1167.365	53	22.026			
Total	246715.500	65				
Corrected Total	12235.254	64				

a. $R^2 = .905$ (Adjusted $R^2 = .885$)

A moderated ANCOVA tested whether age influenced the effect of group on achievement while adjusting for pretest achievement. The model was significant, $F(11, 53) = 45.68$, $p < .001$, $R^2 = .91$. The group × age interaction was significant, $F(4, 53) = 4.32$, $p = .004$, indicating that the effect of peer mentoring on achievement differed across age groups.

Discussion of Findings

Effect of Peer Mentorship on Students' Academic Achievement

The results indicated that students in the experimental group recorded a statistically significant increase in achievement scores whereas the control group showed no improvement. This suggests that peer mentorship provided vital academic support, such as clarifying difficult concepts and encouraging persistence, which translated into improved performance. Drawing from Social Cognitive Theory (SCT), mentors served as models of effective learning strategies, strengthening mentees' academic self-efficacy. Similarly, the Effectively Maintained Inequality (EMI) hypothesis suggests that peer

mentorship functioned as a compensatory resource, granting students from disadvantaged backgrounds access to academic guidance that might otherwise be unavailable.

The finding aligns with Wilton *et al*. (2021), who reported that peer mentoring initiatives in universities enhanced grades and retention rates, and with Eleje *et al*. (2025), who observed that underperforming medical students in a mentorship programme recorded substantial increases in test scores while control groups did not. Both outcomes reflect SCT's emphasis on role modelling and the development of self-efficacy. By contrast, Lorenzetti *et al*. (2019) found only modest academic gains from mentorship. A plausible explanation is that their shorter intervention limited opportunities to build strong mentor–mentee relationships, whereas the sustained programme in this study enabled trust and consistent academic support to emerge.

From a theoretical standpoint, SCT accounts for the improvement through mentors' modelling of academic behaviours and their role in reinforcing self-belief (Loda *et al*., 2019). EMI further underscores that mentorship helps reduce inequality by offering disadvantaged students targeted support that narrows achievement gaps (Fam & Lee, 2019). Overall, peer mentorship emerges as an effective strategy for improving academic achievement among disadvantaged learners, as it provides cognitive scaffolding while countering structural barriers.

Interaction Effect of Age and Peer Mentorship on Academic Achievement

The analysis revealed that the youngest students (aged 9–12) recorded the highest achievement gains (17.50), followed by those aged 17 and above (12.00) and those aged 13–16 (8.33). ANCOVA confirmed a significant moderating effect of age. This suggests that younger students benefited most from mentorship, likely due to their greater developmental plasticity and openness to guidance. SCT offers an explanation: younger learners are more receptive to observational learning during formative stages of academic habit formation. EMI

adds that mentorship mitigates socio-economic barriers more effectively for this group, as they have not yet accumulated entrenched academic deficits.

This finding resonates with Alegre, Moliner, Maroto and Lorenzo-Valentín (2020), who reported greater academic gains among primary school pupils in peer tutoring programmes compared to secondary students. However, it contrasts with Jenner *et al*. (2022), who found comparable outcomes across age groups. A possible reason is that this study focused on low socio-economic backgrounds, where younger learners face fewer cumulative disadvantages, allowing them to benefit more strongly.

In relation to the theoretical framework, SCT explains younger learners' progress through heightened self-efficacy and academic modelling (Hidayat & Saad, 2025), while EMI highlights the disproportionate impact of mentorship in reducing inequality for those with fewer accumulated challenges (Osabutey *et al*., 2023). Overall, these results suggest that peer mentorship is especially powerful in raising academic achievement for younger students from disadvantaged settings.

Interaction Effect of Gender and Peer Mentorship on Academic Achievement

The findings showed that both male and female students in the experimental group recorded academic gains, with males improving by 11.80 and females by 9.78. However, ANCOVA showed no significant moderating effect of gender. This suggests that peer mentorship benefits students' academic achievement irrespective of gender. SCT accounts for this through the universal applicability of role modelling and self-efficacy, while EMI posits that mentorship addresses socio-economic barriers in a way that cuts across gender, producing comparable benefits.

The result aligns with Jain, Shauran and Jain (2020), who found no significant gender differences in mentoring outcomes. In contrast, House *et al*.

(2021) reported slightly larger gains for females. A potential explanation is that the peer-based structure of this programme created relatability and equalised benefits, reducing gendered differences in the mentoring experience.

From a theoretical perspective, SCT underscores the universality of mentorship benefits via boosts to self-efficacy (Olivier *et al*., 2018), while EMI frames the absence of gender differences as a reflection of mentorship's capacity to provide equitable academic support to both genders (Karikari *et al*., 2025). Taken together, this finding positions peer mentorship as an inclusive intervention that supports academic achievement across gender lines, particularly in socio-economically disadvantaged contexts.

Limitations

This study had certain limitations that should be acknowledged. First, the sample size within some age categories was relatively small, which may have constrained the statistical power of moderation analyses. Second, the context-specific focus on Idemili North Local Government Area limits the generalisability of findings to other regions, particularly more urbanised or socio-economically diverse settings. These constraints highlight the need for cautious interpretation and replication in broader contexts.

Recommendations

Based on the findings, several recommendations for educational practice are proposed:

1. Schools should implement age-sensitive mentorship structures, providing developmental guidance for younger students and more goal-oriented, achievement-focused support for older students.
2. Equitable mentor–mentee pairings across gender should be prioritised, ensuring that both males and females receive similar benefits.
3. Teacher-counsellors should be trained to oversee and sustain peer mentorship programmes, ensuring fidelity and consistency in delivery.

4. Educators should integrate structured peer mentorship into their teaching practices ensuring that mentors are well prepared to support academic and socio-emotional development.

Conclusion

The study demonstrated that peer mentorship significantly enhances academic achievement among secondary school students from low socio-economic backgrounds. Age was found to be a significant moderator, with younger students benefiting most, while gender did not significantly influence outcomes. These findings suggest that peer mentorship provides a viable strategy for promoting equity in education by offering both academic and psychosocial support. Overall, peer mentorship holds strong potential as a cost-effective, scalable intervention for improving learning outcomes in disadvantaged school contexts.

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