



## ENHANCING SCHOOL ENGAGEMENT THROUGH PEER MENTORSHIP: THE MODERATING ROLES OF AGE AND GENDER IN LOW SOCIO-ECONOMIC SECONDARY SCHOOLS

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### Article Details

Volume: 02

Issue: 01

Pages: 109-124

Month: January

Year: 2026

DOI: <https://doi.org/10.5281/zenodo.18305373>

### Recommended Citation for APA 7<sup>th</sup> Edition:

Amaechi, U.C., Nwosu, K.C., & Nwankwo, J.O. (2026). Enhancing school engagement through peer mentorship: The moderating roles of age and gender in low socio-economic secondary schools. *International Journal of Premium Advanced Educational Research*, 2(1), 109-124. DOI: <https://doi.org/10.5281/zenodo.18305373>



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### Abstract

Education remains a vital driver of social mobility, yet students from low socio-economic backgrounds in Nigeria continue to face barriers that undermine their engagement and academic potential. This study investigated the impact of a peer mentorship programme on school engagement among secondary school students in the Idemili North Local Government Area of Anambra State. Using a mixed-methods explanatory sequential design, 65 students were purposively selected from two government-owned schools and assigned to experimental and control groups. Engagement was measured with the Student Engagement in Schools Questionnaire (SESQ) alongside qualitative interviews and focus group discussions. Results from ANCOVA revealed that the mentorship programme significantly improved engagement, accounting for 25% of the variance in posttest scores ( $\eta^2p = .25$ ,  $p < .001$ ). Gender moderated the intervention effect, with males recording greater gains than females, while age differences were non-significant. Qualitative insights highlighted themes of accountability, motivation, extracurricular participation, and social connectedness as key mechanisms of change. The findings support Social Learning Theory and relational trust perspectives, demonstrating that peer mentorship strengthens behavioural, emotional, and cognitive engagement by fostering a sense of belonging and self-efficacy. While challenges such as scheduling and mentor preparation were noted, the study underscores the potential of structured peer mentorship to complement existing interventions and promote equity in low-resource educational contexts.

**Keyword:** School Engagement, Peer Mentorship, Moderating Roles, Age, Gender, Low Socio-Economic, Secondary Schools

### 1.1 Introduction

Education is a cornerstone of sustainable development, yet students from low socio-economic backgrounds in Nigeria face significant barriers to meaningful school engagement, undermining their academic potential and future opportunities. In Anambra State, systemic

inequities are stark, with a 23% school dropout rate and only 32% of children enrolling in primary school (UNICEF, 2023). These challenges are particularly acute in rural areas like Idemili North Local Government Area (LGA), where economic hardship, limited access to educational resources, and insufficient emotional support contribute to disengagement, absenteeism, and low participation in school activities (Ogbuagu, 2024). Recent economic difficulties have further exacerbated these issues, diminishing students' motivation and engagement in their learning environment (Obibuba & Mohammed, 2024).

School engagement, encompassing behavioural, emotional, and cognitive dimensions, is critical for academic success and personal development, particularly for students from low socio-economic status (SES) backgrounds (Liu et al., 2021; Tomaszewski et al., 2020). Behavioural engagement includes active participation in classes and extracurricular activities, emotional engagement reflects students' sense of belonging, and cognitive engagement involves the mental effort invested in learning. For low SES students, high engagement acts as a protective factor, mitigating the negative effects of poverty and fostering resilience (Estevez et al., 2021). However, traditional interventions, such as government scholarships in Anambra State (Kenechi, 2023), often fail to address the social and psychological barriers that hinder engagement, underscoring the need for innovative approaches.

Peer mentorship has emerged as a promising strategy to enhance school engagement by fostering supportive relationships that promote academic motivation, attendance, and participation (Murrell, Blake-Beard, & Porter, 2021). Unlike hierarchical mentorship models, peer mentorship leverages reciprocal, equal relationships that create a sense of community and accountability. Qualitative evidence suggests that peer mentorship increases class attendance, encourages extracurricular participation, and builds supportive networks among students, particularly in low SES contexts (Markley, 2024). Yet, the effectiveness of peer mentorship may vary across demographic factors. Age and gender shape developmental needs, social expectations, and peer influence, which in turn affect responsiveness to interventions (Kuperminc et al., 2020). Despite this, few studies in Nigeria have examined peer mentorship in disadvantaged school settings (for example, Okafor et al., 2025), and little is known about the moderating roles of age and gender. This study, therefore, investigates the effect of a peer mentorship programme on school engagement among secondary school students from low-SES backgrounds in Idemili North LGA. This research aims to provide insights into how tailored mentorship can complement existing interventions, such as the Soludo-led scholarship programme, to foster greater engagement and educational equity.

## **2. Literature Review**

### **2.1 School Engagement: Definitions and Importance**

School engagement has emerged as a central construct in educational research due to its strong links with student learning, motivation, and achievement. Engagement refers to the extent to which students are actively involved, motivated, and committed to their learning experiences and the broader school environment (Estevez et al., 2021). It is widely recognised as a multidimensional construct, encompassing behavioural, emotional, and cognitive dimensions

(Alonso-Tapia et al., 2022; Estevez et al., 2021). Behavioural engagement involves students' participation in class, adherence to school rules, and involvement in extracurricular activities (Chen, Huebner & Tian, 2020). Emotional engagement captures students' affective reactions, including their sense of belonging, attitudes towards school, and relationships with teachers and peers (Ben-Eliyahu et al., 2018). Cognitive engagement, meanwhile, refers to the investment of effort in learning, self-regulation, and the application of effective strategies (Estevez et al., 2021).

Research consistently demonstrates that higher levels of engagement are associated with improved academic outcomes, including achievement, resilience, and retention (Gutiérrez & Tomás, 2019; Romano et al., 2023). The relationship is reciprocal; academic success further enhances students' engagement, reinforcing motivation and persistence (Lei et al., 2021). Given these links, fostering school engagement is a key pathway to promoting student achievement and overall well-being, particularly for learners from disadvantaged contexts.

## **2.2 Peer Mentorship in Education**

Peer mentorship has been increasingly recognised as an effective approach to improving both academic outcomes and school engagement. Unlike traditional hierarchical mentoring, which involves an experienced adult guiding a novice (Diggs et al., 2023; Sorte et al., 2020), peer mentoring operates on the principle of reciprocity between individuals at similar developmental stages (Collier, 2023; Seery et al., 2021). Peer mentors provide academic assistance, emotional support, and role modelling, helping mentees develop confidence, study habits, and resilience (Gehreke, Schilling & Kauffeld, 2024; Murrell, Blake-Beard, & Porter, 2021).

The theoretical underpinnings of peer mentorship are rooted in Social Learning Theory (Bandura, 1977), which highlights learning through observation and modelling, and Relational Mentoring Theory (Ragins, 2016), which emphasises the co-construction of supportive, growth-oriented relationships. In education, peer mentoring strengthens relational trust, fosters a sense of belonging, and creates networks of support, particularly important for students from disadvantaged backgrounds (Verlinden, 2023).

Evidence suggests that peer mentorship improves academic achievement, engagement, and resilience by enhancing self-efficacy and providing social support (Malik et al., 2019; Estevez et al., 2021). At the same time, it promotes inclusivity, encourages collaboration, and facilitates the exchange of ideas among students (Alex, 2023; Mendes et al., 2025). Nonetheless, challenges persist, including difficulties in mentor-mentee matching, unclear objectives, and a need for training and supervision (Reeves, 2022; Powell, 2024). Despite these limitations, mentoring remains a widely endorsed strategy for strengthening student outcomes in school settings.

## **2.3 Role of Age and Gender in Educational Interventions**

Educational interventions, including peer mentorship, do not operate uniformly across all students. Age plays a significant role, as developmental stages shape how students respond to mentorship and engagement strategies (Dai et al., 2022). For instance, younger adolescents may rely more heavily on social relationships for motivation, while older students may prioritise autonomy and academic aspirations (Schimmelpfennig, 2025; Wong et al., 2024). This suggests



that age moderates the effectiveness of interventions by shaping the relevance of peer support at different developmental stages.

Gender is another important factor, as social and cultural expectations often shape students' engagement patterns and educational experiences. Research indicates that girls may demonstrate stronger emotional and relational engagement, whereas boys are more likely to display variations in behavioural engagement, such as participation and discipline (Ben-Eliyahu et al., 2018). These gendered experiences highlight the need to account for differential responses when designing mentorship interventions.

However, there remains a significant gap in the literature regarding how age and gender interact with peer mentorship in low socio-economic contexts in Nigeria. Much of the existing evidence comes from studies in resource-rich environments, where structural barriers to education are less pronounced (Eleje et al., 2025; Malik et al., 2019). For students from disadvantaged backgrounds, socio-economic constraints, such as limited resources, parental involvement, and school quality, can fundamentally alter how age and gender dynamics manifest. Understanding these intersections is critical for tailoring interventions that are both equitable and effective in improving school engagement and academic achievement.

### **3. Methods**

#### **3.1 Research Design**

A mixed-methods explanatory sequential design was employed to investigate the impact of a peer mentorship programme on school engagement among secondary school students from low socio-economic backgrounds in Idemili North Local Government Area (LGA), Anambra State. The quantitative phase utilised a quasi-experimental non-equivalent group design with pretest and posttest measures, comparing an experimental group that received the intervention with a control group that did not. This design enabled the assessment of the programme's effect on engagement while controlling for baseline differences (Toyan, 2021). The subsequent qualitative phase involved semi-structured interviews and focus group discussions to explore participants' experiences and perceptions, providing deeper insights into how mentorship shaped engagement.

#### **3.2 Participants**

The study 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 included 36 students (15 males, 21 females), while the control group comprised 29 students (15 males, 14 females). Mentees were Junior Secondary School 2 (JSS2) students, and mentors were Senior Secondary School 2 (SS2) students, reflecting critical transition points in secondary education. The sample was stratified by age (9–12, 13–16, 17+) and gender to examine potential moderating effects on outcomes.

A multi-stage sampling strategy was adopted. First, purposive sampling identified two rural schools with low socio-economic characteristics, excluding urbanised areas such as Nkpor and Obosi. Second, simple random sampling assigned one school to the experimental group and

the other to the control group. Third, intact JSS2 classes were selected, and mentees were identified by form teachers based on low attendance or weak participation records. Six SS2 students per group served as mentors, selected for strong academic records, leadership skills, emotional maturity, and consistent attendance. Parental consent and student assent were secured through meetings facilitated by teacher-counsellors.

### 3.3 Intervention

The peer mentorship programme lasted eight weeks. Each SS2 mentor supported five JSS2 mentees, fostering cross-grade interaction and guidance. The programme was implemented in two phases:

- **Phase 1 (Week 1 – Preparation):** Orientation for mentors and a teacher-research assistant, using structured training manuals. Training emphasised academic and emotional support, goal setting, and ethical conduct. Mentor-mentee pairs were matched based on compatibility and participated in rapport-building and collaborative SMART goal-setting (e.g., improving attendance to 4 days per week).
- **Phase 2 (Weeks 2–7 – Mentorship Sessions):** Daily 18-minute check-ins during break periods, where mentors reviewed attendance, assignments, and provided encouragement. The teacher-research assistant observed sessions daily and held weekly meetings with mentors to ensure fidelity. The control group followed the standard curriculum without mentorship.

### 3.4 Data Collection

**Quantitative:** School engagement was measured using the 33-item Student Engagement in Schools Questionnaire (SESQ; Hart, Stewart, & Jimerson, 2011), which assesses behavioural, emotional, and cognitive dimensions. The SESQ was administered pre- and post-intervention, demonstrating strong reliability (Cronbach's  $\alpha = .84$ ). Demographic data (age, gender, parental education and occupation) were collected in Section A of the SESQ. Attendance registers were also reviewed to verify engagement trends.

**Qualitative:** Semi-structured interviews were conducted with mentees in the experimental group after the programme to explore changes in attendance, attitudes, and classroom focus. Additionally, focus group discussions (FGDs) with selected participants allowed collective reflection on the programme's impact. Interviews and FGDs were audio-recorded, transcribed verbatim, and conducted by trained assistants to ensure consistency.

### 3.5 Data Analysis

**Quantitative:** Descriptive statistics summarised demographic and engagement data. Independent t-tests assessed baseline equivalence between groups. ANCOVA was used to evaluate posttest engagement differences while controlling for pretest scores (Table 8). Moderation analyses examined group  $\times$  gender (Table 11) and group  $\times$  age (Table 12) interactions using moderated ANCOVA in SPSS version 26 ( $\alpha = .05$ ). Missing data were managed through imputation and sensitivity analysis.

**Qualitative:** Thematic analysis was employed to identify recurring patterns in interview and FGD data, focusing on themes such as improved attendance, increased motivation, and

enhanced peer support. Coding was iterative, and findings were triangulated with quantitative results to ensure validity.

## 4. Results

### Overall Impact on Engagement

The peer mentorship programme significantly enhanced school engagement among secondary school students from low socio-economic backgrounds in Idemili North LGA. The experimental group (n = 36) demonstrated a notable increase in engagement scores from pretest (M = 3.63, SD = 0.57) to posttest (M = 3.99, SD = 0.67), yielding a mean gain of 0.36. In contrast, the control group (n = 29) showed negligible change (pretest M = 3.08, SD = 0.73; posttest M = 3.09, SD = 0.74; M gain = 0.01) (Table 1).

*Table 1: Engagement Mean Scores and Standard Deviation Based on Group*

| Group              | N  | School Engagement |     |           |     |                |
|--------------------|----|-------------------|-----|-----------|-----|----------------|
|                    |    | Pretest           |     | Posttest  |     | $\bar{x}$ gain |
|                    |    | $\bar{x}$         | SD  | $\bar{x}$ | SD  |                |
| Experimental Group | 36 | 3.63              | .57 | 3.99      | .67 | 0.36           |
| Control Group      | 29 | 3.08              | .73 | 3.09      | .74 | 0.01           |

Analysis of Covariance (ANCOVA), controlling for pretest scores, confirmed a significant effect of the intervention on posttest engagement,  $F(1, 61) = 20.33$ ,  $p < .001$ ,  $\eta^2p = .25$ ,  $R^2 = .67$  (Table 2). These results indicate that the peer mentorship programme accounted for 25% of the variance in posttest scores, reflecting a large effect size and robust intervention impact.

*Table 2: ANCOVA Results for Effect of Group on Posttest Engagement*

| Source                     | Type III Sum of Squares | Df | Mean Square | F      | Sig. | Partial Eta Squared |
|----------------------------|-------------------------|----|-------------|--------|------|---------------------|
| Corrected Model            | 29.112 <sup>a</sup>     | 3  | 9.704       | 40.411 | .000 | .665                |
| Intercept                  | 4.873                   | 1  | 4.873       | 20.292 | .000 | .250                |
| Group                      | 4.882                   | 1  | 4.882       | 20.331 | .000 | .250                |
| group * Engagement pretest | 15.972                  | 2  | 7.986       | 33.256 | .000 | .522                |
| Error                      | 14.648                  | 61 | .240        |        |      |                     |
| Total                      | 879.430                 | 65 |             |        |      |                     |
| Corrected Total            | 43.760                  | 64 |             |        |      |                     |

a. R Squared = .665 (Adjusted R Squared = .649)

The interaction between group and pretest engagement was also significant,  $F(2, 61) = 33.26$ ,  $p < .001$ ,  $\eta^2p = .52$ , indicating that baseline engagement levels influenced the strength of the intervention effect.

### Gender as a Moderator

Gender significantly moderated the effect of peer mentorship on engagement. Within the experimental group, males ( $n = 15$ ) recorded larger engagement gains (pretest  $M = 3.43$ ,  $SD = 0.59$ ; posttest  $M = 4.05$ ,  $SD = 0.75$ ;  $M$  gain = 0.62) compared with females ( $n = 21$ ; pretest  $M = 3.78$ ,  $SD = 0.53$ ; posttest  $M = 3.95$ ,  $SD = 0.62$ ;  $M$  gain = 0.17) (Table 3). By contrast, the control group showed no meaningful changes for either gender (males:  $M$  gain = 0.00; females:  $M$  gain = -0.01).

*Table 3: Engagement Mean Scores and Standard Deviation in the Groups Based on Gender*

| Group        | Gender | N  | Engagement |      |           |      |                |
|--------------|--------|----|------------|------|-----------|------|----------------|
|              |        |    | Pretest    |      | Posttest  |      | $\bar{x}$ gain |
|              |        |    | $\bar{x}$  | $SD$ | $\bar{x}$ | $SD$ |                |
| Experimental | Male   | 15 | 3.43       | .59  | 4.05      | .75  | .62            |
|              | Female | 21 | 3.78       | .53  | 3.95      | .62  | 0.17           |
| Control      | Male   | 15 | 3.00       | .85  | 3.00      | .85  | 0.00           |
|              | Female | 14 | 3.17       | .61  | 3.18      | .61  | -0.01          |

A moderated ANCOVA revealed a significant group  $\times$  gender interaction,  $F(2, 57) = 4.09$ ,  $p = .022$ ,  $\eta^2p = .07$ ,  $R^2 = .72$  (Table 4).

*Table 4: ANCOVA Results for Gender as Moderator on Engagement*

| Source                              | Type III Sum of Squares | Df | Mean Square | F      | Sig. | Partial Eta Squared |
|-------------------------------------|-------------------------|----|-------------|--------|------|---------------------|
| Corrected Model                     | 31.519 <sup>a</sup>     | 7  | 4.503       | 20.966 | .000 | .720                |
| Intercept                           | 3.782                   | 1  | 3.782       | 17.612 | .000 | .236                |
| Group                               | 3.793                   | 1  | 3.793       | 17.663 | .000 | .237                |
| group * gender                      | 1.757                   | 2  | .878        | 4.090  | .022 | .125                |
| group * gender * Engagement pretest | 18.076                  | 4  | 4.519       | 21.042 | .000 | .596                |
| Error                               | 12.241                  | 57 | .215        |        |      |                     |
| Total                               | 879.430                 | 65 |             |        |      |                     |
| Corrected Total                     | 43.760                  | 64 |             |        |      |                     |

a. R Squared = .720 (Adjusted R Squared = .686)



The moderated ANCOVA examined gender as a moderator of group effects on engagement. The model was significant,  $F(7, 57) = 20.97, p < .001, R^2 = .72$ . The group  $\times$  gender interaction was also significant,  $F(2, 57) = 4.09, p = .022$ , indicating that males and females responded differently to the intervention, with males showing larger gains in engagement.

### Age as a Moderator

Engagement gains varied across age groups in the experimental group. Students aged 17 and above ( $n = 5$ ) demonstrated the highest improvement ( $M$  gain = 0.82), followed by those aged 9–12 ( $M$  gain = 0.64), and the 13–16 group ( $M$  gain = 0.17). The control group showed no meaningful gains (Table 5).

*Table 5: Engagement Mean Scores and Standard Deviations in Groups Based on Age*

| Group        | Age      | N  | Pretest   |      | Engagement Posttest |     | $\bar{x}$ gain |
|--------------|----------|----|-----------|------|---------------------|-----|----------------|
|              |          |    | $\bar{x}$ | SD   | $\bar{x}$           | SD  |                |
| Experimental | 9-12     | 7  | 3.54      | .48  | 4.18                | .53 | 0.64           |
|              | 13-16    | 24 | 3.80      | .50  | 3.97                | .72 | 0.17           |
|              | 17 above | 5  | 2.97      | .60  | 3.79                | .57 | 0.82           |
| Control      | 9-12     | 10 | 3.00      | 0.00 | 3.00                | .00 | 0.00           |
|              | 13-16    | 10 | 3.95      | .16  | 3.95                | .15 | 0.00           |
|              | 17 above | 9  | 2.22      | .26  | 2.22                | .26 | 0.00           |

Table 6 revealed engagement gains were observed across all experimental age groups, with the 17+ subgroup showing the largest gain (0.82), followed by 9–12 (0.64) and 13–16 (0.17). No change was observed in the control group.

Despite these descriptive differences, a moderated ANCOVA indicated a non-significant group  $\times$  age interaction,  $F(3, 54) = 0.74, p = .533, \eta^2p = .02, R^2 = .69$  (Table 6).

*Table 6: ANCOVA Results for Age as Moderator on Engagement*

| Source            | Type III Sum of Squares | df | Mean Square | F      | Sig. | Partial Eta Squared |
|-------------------|-------------------------|----|-------------|--------|------|---------------------|
| Corrected Model   | 30.179 <sup>a</sup>     | 10 | 3.018       | 12.000 | .000 | .690                |
| Intercept         | .387                    | 1  | .387        | 1.538  | .220 | .028                |
| Group             | .261                    | 1  | .261        | 1.039  | .313 | .019                |
| group * age       | .558                    | 3  | .186        | .740   | .533 | .039                |
| group * age *     | 2.180                   | 5  | .436        | 1.734  | .143 | .138                |
| Engagementpretest |                         |    |             |        |      |                     |
| Error             | 13.581                  | 54 | .251        |        |      |                     |
| Total             | 879.430                 | 65 |             |        |      |                     |
| Corrected Total   | 43.760                  | 64 |             |        |      |                     |

a. R Squared = .690 (Adjusted R Squared = .632)



The ANCOVA tested whether age moderated the effect of group on posttest engagement. The overall model was significant,  $F(10, 54) = 12.00, p < .001, R^2 = .69$ . The group  $\times$  age interaction,  $F(3, 54) = 0.74, p = .533$ . This indicates that age did not significantly moderate the intervention effect on engagement.

### Qualitative Insights

Qualitative data from semi-structured interviews and focus group discussions with students in the experimental group provided explanatory depth to the observed engagement gains. Four dominant themes were identified, each shedding light on the mechanisms through which peer mentorship enhanced school engagement.

Firstly, accountability and attendance emerged as a central theme. Students consistently described how mentors encouraged them to attend classes regularly and avoid skipping lessons. As one participant reflected, *"My mentor always reminded me to come to class and not skip lessons, which made me take my attendance seriously"* (Respondent 2, Group 1).

Secondly, mentorship fostered motivation and focus in learning. Participants expressed that the encouragement and belief of their mentors inspired greater commitment to schoolwork. One student remarked, *"Having a mentor who believes in me made me more focused in class"* (Respondent 6, Group 1).

A third theme related to extracurricular participation. Several students reported increased involvement in sports and other school activities following encouragement from their mentors. As one explained, *"My mentor encouraged me to join sports, now I enjoy them"* (Respondent 7, Group 1).

Finally, social connection and support networks were emphasised. The programme was seen as creating stronger bonds among peers and fostering positive relationships with teachers. This was illustrated in comments such as, *"The programme helped me make friends and work better with classmates"* (Respondent 4, Group 1), and, *"The mentorship programme connected us and made us feel like a team"* (Respondent 5, Group 2).

Taken together, these themes corroborate the quantitative findings by showing that peer mentorship enhanced behavioural, emotional, and cognitive engagement. They also provide explanatory depth, illustrating how the intervention cultivated accountability, motivation, and a sense of community that enabled students to engage more fully with school life.

### 5. Discussion of Findings

The findings demonstrated that students in the experimental group who participated in the peer mentorship programme recorded significant gains in school engagement, while the control group showed negligible change. The ANCOVA confirmed a significant main effect of group on engagement. These results suggest that peer mentorship fosters accountability, motivation, and stronger school connectedness, as mentors provide personalised guidance and encouragement. Within the framework of Social Cognitive Theory (SCT), observational learning and social interactions strengthen self-efficacy and engagement through role modelling and positive

reinforcement (Wofford, 2023). The programme appears to have enhanced students' belief in their ability to participate actively in school life, improving attendance and classroom focus.

This outcome is consistent with Torres, Chen and Peixoto (2025), who reported that mentoring builds belongingness and engagement among first-generation learners through supportive peer relationships. Similarly, Baty and Wilwol (2019) and Burton et al. (2022) found that peer mentoring enhances adolescents' sense of connectedness to school. However, the present results diverge from Nabi, Walmsley, Mir and Osman (2024), who observed mixed outcomes for under-represented and low-SES groups, with effectiveness shaped by programme structure and mentor-mentee alignment. Kitchen, Culver, Rivera and Corwin (2025) also noted that mentoring benefits are not universal for low-SES students, while Eleje et al. (2025) found non-significant improvements in vitality and engagement, with only certain aspects of classroom participation showing gains.

From a theoretical perspective, SCT explains the rise in engagement as rooted in self-efficacy and observational learning, while the Effectively Maintained Inequality (EMI) hypothesis underscores how mentorship provides social capital to counter socio-economic disadvantage (Luedke, 2017). Together, these insights suggest that peer mentorship is a powerful strategy for enhancing school engagement among disadvantaged students.

Although all age groups in the experimental condition showed improvements (ages 9–12: gain = 0.64; ages 13–16: gain = 0.17; ages 17+: gain = 0.82), ANCOVA revealed no significant age-by-condition interaction. This indicates that the positive effects of peer mentorship cut across developmental stages. The non-significant moderation was unexpected, as younger students were anticipated to benefit more due to developmental malleability. A possible explanation is that older students (17+) also derived substantial benefits, particularly in areas such as career aspirations and planning, which peer mentors helped them navigate. This interpretation resonates with Karcher (2008), who found that mentorship supports engagement across adolescence, though it contrasts with Silke, Brady and Dolan (2019), who observed stronger effects for younger mentees. The peer-based nature of this programme may explain the difference, as relatability and shared experiences made it equally impactful across ages.

The findings showed that males in the experimental group achieved larger engagement gains than females. ANCOVA confirmed a significant gender-by-time interaction. This pattern suggests that male students responded more strongly to peer mentorship, possibly because they identified more with peers and had a greater need for behavioural guidance. From an SCT perspective, greater improvements in male engagement may reflect more robust gains in self-efficacy through modelling and reinforcement. The EMI framework further indicates that peer mentorship may disproportionately benefit males in contexts where they are at particular risk of disengagement.

These findings are consistent with those of Ellis and Gershenson (2016), who found that males often experience greater engagement gains in mentorship programmes, largely due to behavioural and motivational reinforcement. In contrast, Dennehy and Dasgupta (2017) reported

that female engineering students with female mentors gained greater belonging and confidence, benefits that persisted beyond the programme. The divergence may be attributed to the peer-based format of this study, which possibly resonated more strongly with male students through social learning and shared experiences.

Qualitative insights revealed that students attributed their engagement gains to improved attendance, motivation, and involvement in extracurricular activities. These highlight mentorship as a catalyst for behavioural, emotional, and social engagement. Such perceptions align with Moses and Villodas (2017), who found that supportive peer relationships buffer adversity, and with Tzani-Pepelasi et al. (2019), who showed that peer “buddy” systems foster belonging. Rhodes and DuBois (2008) also linked mentoring to stronger connectedness and participation. In contrast, Larose et al. (2015) and Sánchez et al. (2019) warned that mismatched mentor–mentee relationships can weaken trust and reduce engagement.

SCT provides a useful interpretive lens here: mentors modelled constructive behaviours, built self-efficacy through encouragement, and promoted persistence via accountability. The shared socio-economic context of mentors and mentees in Idemili North enhanced relatability, making the engagement gains more meaningful and sustainable.

Students also perceived mentorship as improving their academic achievement through enhanced focus, encouragement, and accountability. For example, one student noted, “I used to dislike some subjects, but my mentor’s encouragement changed my mindset” (Respondent 5, Group 2). Others reported greater interest in homework and focus in class.

These accounts align with Nzama (2023), who found that peer mentorship fostered resilience and persistence among first-year students during and after the Covid-19 pandemic, and Wilton et al. (2021), who reported improvements in study habits and achievement. However, Goldhaber, Krieg and Theobald (2020) found no significant academic benefits from short-term mentoring, pointing to the importance of duration and context. SCT again helps explain the findings: observational learning, encouragement, and accountability reinforced self-regulation and strengthened achievement-related behaviours.

Despite its benefits, students reported challenges, including scheduling conflicts, irregular meetings, and limited mentor preparation. These challenges mirror those identified by Rajendran, Jones and Brar (2022) and Sherman, Kalvas and Schlegel (2022), who found logistical and training gaps in school-based mentoring. In contrast, Mlaba and Emmamally (2019) observed fewer barriers in flexible, community-based models. From an SCT perspective, irregular interactions and inadequate preparation reduce opportunities for modelling and reinforcement, weakening self-efficacy. The EMI framework also explains how structural constraints—such as large class sizes, resource limitations, and socio-economic hardship—can undermine access to the full benefits of mentorship.



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