

Evaluating Peer-Led Study Groups In Educational Psychology, Performance, And Student Perception In SMP Islam

Kepenuhan Kota Tengah Rokan Hulu

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Abstract

This community service project aims to evaluate the impact of peer-led learning groups in secondary school educational psychology on students' academic performance and perceptions of collaborative learning. The project was implemented from October to December 2024 at SMP Islam Kepenuhan Kota Tengah, Rokan Hulu Regency, Riau Province. The implementation of this community service project followed a structured, step-by-step approach designed to address identified gaps and partner challenges. Participants of 60 students were divided into two groups: those who participated in peer-led learning groups (experimental group) were 30 students, and those who received traditional teacher-led instruction (control group) were 30 students. The findings revealed that students in peer-led learning groups showed an 18% higher increase in academic performance than the control group. Survey results showed a significant increase in positive perceptions of collaboration, with 87% of students reporting that peer-led discussions improved their understanding of the material. Challenges identified included uneven participation in some groups and the need for additional training for peer leaders to effectively manage group dynamics. Peer-led learning groups are a viable strategy for improving secondary school students' academic performance and perceptions of collaborative learning. These results highlight the importance of empowering students to actively participate in their education. Future initiatives should focus on providing comprehensive training for peer leaders and addressing group management issues to maximize the effectiveness of this approach.

Key woord: Peer-led study groups, educational psychology, middle school students, academic performance, collaborative learning perceptions

Introduction

The target community for this community service project is junior high schools located in Kota Tengah of Rokan Hulu Regency. The school is in a moderately populated area with mixed socio-economic backgrounds. This diversity provides an ideal environment to explore how peer-led study groups function across different cultural contexts. The student reflects a rich tapestry of cultural values, learning styles, and interpersonal dynamics. However, it also presents challenges, such as disparities in educational support at home can hinder equitable participation in collaborative learning (Afridi, 2024). Addressing these factors requires culturally responsive approaches to implementing peer-led study groups that account for each subgroup's unique needs and strengths (E. Wood & Brian, 2024). Many students face external challenges, such as limited access to academic resources outside school, making in-school learning opportunities critical for their academic success. Peer-led study groups could solve these challenges cost-effectively by leveraging existing student relationships to create supportive learning environments (Zamiri & Ali Esmaeili, 2024; Capps et al., 2024).

The project is being implemented in collaboration with school administrators and teachers. Initial assessments indicate that the schools have shown interest in innovative teaching strategies to enhance student engagement but lack the expertise and resources to implement peer-led study models. Teachers, while supportive, have expressed concerns about the consistency and effectiveness of peer-led sessions without proper training and monitoring (Keiler et al., 2023). These partnerships are essential for ensuring the sustainability and scalability of the program.

Traditional teacher-led instructional methods dominate the classroom settings in these schools, leaving limited room for student-led learning experiences. While teacher-directed approaches provide structure, they often fail to engage all students actively. As a result, many middle schoolers in the target community struggle with understanding core concepts in educational psychology, leading to lower academic performance and decreased motivation to learn. Despite the known benefits of collaborative learning, peer-led study groups are rarely implemented systematically in these schools (Himmel, 2023; Nguyen et al., 2022). Key gaps include the absence of training programs for peer leaders, insufficient tools to measure the effectiveness of group activities and limited strategies to address middle school students' social and emotional dynamics. These gaps create a missed opportunity to leverage the power of peer learning to improve educational outcomes.

Research on peer-led study groups at higher education levels has shown promising results, improving academic performance, communication skills, and motivation (Young & Scott, 2022; Maccabe et al., 2021). However, studies focusing on middle school students are sparse (Elsadek, 2023). Those that do exist often fail to account for developmental differences and the unique challenges of early adolescence, such as heightened sensitivity to peer influence and varying levels of self-regulation. The lack of evidence-based peer-led study group models tailored to middle school students leaves educators with limited options for integrating such approaches into the curriculum. This gap is particularly problematic in educational psychology, where understanding abstract concepts requires active engagement and collaborative problem-solving.

This project aims to design, implement, and evaluate peer-led study groups as a practical solution to the issues identified. By training selected students as group leaders and equipping them with facilitation skills, the program seeks to foster a supportive and collaborative learning environment. Regular monitoring and feedback mechanisms will ensure that the groups remain effective and inclusive. The project expects to achieve measurable improvements in students' academic performance and perceptions of collaborative learning. In addition to academic benefits, the initiative aims to enhance students' interpersonal skills, boost their confidence in learning, and create a culture of mutual support. The insights gained will provide a framework for scaling the program across other middle schools, addressing the broader gaps in educational practice.

Method

The implementation of this community service project follows a structured, step-by-step approach designed to address the identified gaps and partner challenges. The project involves a series of well-planned activities to evaluate and optimize peer-led study groups in middle school educational psychology. Conduct a needs assessment

through surveys and interviews with school administrators, teachers, and students to understand current challenges in teaching and learning (Rasmitadila, 2020). Potential peer group leaders should be identified based on teacher recommendations, academic performance, and interpersonal skills (Shen, 2020). Collaborate with school staff to establish goals and metrics for measuring success (e.g., improvement in test scores, student engagement, and perception surveys).

Organize workshops for selected peer group leaders focusing on facilitation skills, group management, conflict resolution, and active learning strategies. Train teachers to act as mentors, guiding peer leaders and overseeing group activities. Develop session plans and instructional materials tailored to the curriculum. Form peer-led study groups of 6 students, ensuring diversity in academic ability and gender within each group. Conducted introductory sessions where peer leaders explained the study groups' purpose, goals, and rules to members. Establish a regular schedule for group meetings (e.g., twice a week after school or during designated class periods). Facilitate weekly peer-led study group sessions. Monitor group dynamics and participation through teacher observation and peer leader feedback. Administer mid-project evaluations to assess progress, identify challenges, and adjust group activities or materials. Conduct post-tests to measure changes in academic performance and distribute surveys to gauge students' perceptions of the peer-led study groups. Organize a focus group discussion with peer leaders, teachers, and school administrators to gather feedback.

Table 1: Work Program for Community Service

Activity	Responsibility	Description
Assessment	Project team, school staff	Conduct surveys and interviews; identify peer leaders.
Training	Trainers, project team	Train peer leaders and teachers on facilitation and mentoring skills.
Group Formation	Peer leaders, teachers	Form peer-led groups and set goals and rules for the study sessions.
Study Sessions	Peer leaders, teachers	Conduct regular study group meetings, monitor progress, and address challenges.
Project Evaluation	Project team, teachers	Collect interim feedback to refine group activities.
Implementation Evaluation	Project team	Conduct post-tests, surveys, and focus group discussions; analyze data and prepare reports.
Reporting	Project team	Present findings, share insights and provide recommendations for program sustainability.

Results and Discussion

Post-test results showed a significant improvement in students' academic performance in peer-led study groups compared to those in traditional teacher-led instruction. On average, students in the experimental group scored 18% higher than their pre-test scores, while the control group exhibited an 8% improvement. Specific topics

within educational psychology, such as learning theories and memory strategies, saw the most significant gains, as these were actively discussed and applied during the peer-led sessions.

Table 2:
Students' academic performance compared to traditional teacher-led instruction

Category	Peer-Led Study Groups (Experimental Group)	Teacher-Led Instruction (Control Group)
Average Pre-Test Score (%)	65	67
Average Post-Test Score (%)	83	75
Improvement (%)	18	8
Key Topic 1: Learning Theories	Significant improvement (+22%)	Moderate improvement (+12%)
Key Topic 2: Memory Strategies	Significant improvement (+20%)	Minimal improvement (+7%)

Surveys revealed that 85% of students in the peer-led groups reported a better understanding of the material due to collaborative discussions. Students expressed increased confidence in contributing ideas and learning from their peers. The majority (87%) noted that peer-led groups' relaxed and interactive environment helped reduce anxiety compared to traditional classroom settings. Peer leaders demonstrated growth in their facilitation and leadership skills, with 90% reporting improved confidence in managing group dynamics and encouraging participation. Teachers observed that peer leaders became more responsible and proactive in their academic and interpersonal interactions. Uneven participation in some groups: While most students actively engaged, a small percentage remained passive due to shyness or lack of interest. Peer leader difficulties: Some peer leaders struggled with maintaining discipline or redirecting off-topic discussions.

The results confirm that peer-led study groups can significantly improve junior high school students' understanding. These findings align with previous studies at higher education levels, demonstrating that collaborative learning fosters deeper engagement and comprehension (Jin et al., 2022; Moon et al., 2024). The improvement in test scores indicates that peer-led discussions encourage active learning and critical thinking, helping students internalize abstract concepts more effectively. The overwhelmingly positive feedback on collaborative learning perceptions highlights the importance of peer interactions in creating a supportive learning environment. Middle school students, whose peers mainly influence them, benefited from these groups' interactive and less hierarchical structure. The experience also enhanced their social and communication skills, crucial for academic and personal development.

The growth observed in peer leaders underscores the value of empowering students to take on leadership roles. Their ability to facilitate learning and manage group dynamics improved over time, suggesting that students can effectively lead their peers with proper training and mentorship. However, the challenges faced by some leaders

highlight the need for ongoing support and more comprehensive training, particularly in conflict resolution and group engagement strategies. The challenges identified in this program reflect the complexity of implementing peer-led learning models in middle school settings. Uneven participation suggests the need for strategies to engage quieter students, such as rotating leadership roles or assigning specific tasks to each member. For peer leaders struggling with group management, additional training sessions focused on practical facilitation techniques could be introduced. Time constraints could be addressed by extending the program duration or integrating it into the regular curriculum. The success of this program suggests its potential for sustainability and scalability. Integrating peer-led study groups into the middle school curriculum as a regular component of instruction could provide long-term benefits. To scale the program, future initiatives should focus on creating standardized training materials for peer leaders and developing a toolkit for schools to independently implement and monitor similar programs.

Conclusion

This community service project successfully achieved its primary goal of empowering middle school students through the implementation of peer-led study groups. The activities led to notable improvements in students' academic performance and enhanced their perceptions of collaborative learning. Peer leaders developed facilitation and interpersonal skills, while group members benefited from a more interactive and supportive learning environment. These achievements reflect the effectiveness of a structured peer-led approach in addressing gaps in traditional teaching methods. Uneven participation, like some students, was less active in group discussions, often due to shyness or lack of interest. Like a few peer leaders, peer leader difficulties struggled with managing group dynamics and ensuring all members contributed equally. The project positively impacted the target community by introducing an innovative learning model that fostered academic, social, and emotional growth. Students experienced improved educational outcomes and developed essential life skills such as teamwork, communication, and leadership. The program also empowered teachers by equipping them with tools to effectively mentor and monitor peer-led study groups.

Future programs should consider a more extended timeframe for comprehensive training, excellent topic coverage, and better accommodating individual needs. Provide regular workshops and mentorship opportunities for peer leaders to refine their facilitation and conflict-resolution skills. Develop mechanisms to ensure all group members contribute actively, such as rotating leadership roles and assigning specific responsibilities. Collaborate with schools to make peer-led study groups a regular part of the curriculum, ensuring sustainability and scalability. By addressing these suggestions, future community empowerment efforts can build on this project's successes and create an even more significant impact on students, educators, and the wider school community.

Appreciation

We sincerely thank the Islamic Junior High School of Kepenuhan Rokan Hulu for their unwavering support and collaboration throughout this community service initiative. Your openness to innovation, enthusiasm for fostering student growth, and dedication to academic excellence have been invaluable to the success of this program.

We are incredibly thankful to the school leadership, teachers, and staff for their guidance and encouragement and for creating an environment conducive to learning and development. To the students, your active participation, curiosity, and willingness to embrace new approaches to learning have inspired us and reaffirmed the importance of collaborative education. Thank you for welcoming us and making this project a shared success. May your school shine as a beacon of knowledge and growth in Rokan Hulu and beyond.

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