

Active Learning Models Type Index Card Match: Improve the Learning Outcomes Students in the Pancasila Education

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ABSTRAK

Pemanfaatan model pembelajaran yang berpusat pada guru telah terbukti berdampak buruk terhadap prestasi akademik siswa. Penelitian ini bertujuan untuk menganalisis dampak penerapan metode pengajaran index card match terhadap hasil akademik siswa kelas delapan mata pelajaran Pendidikan Pancasila. Penelitian menggunakan metode eksperimen dengan pendekatan kuantitatif. Ukuran sampel 70 siswa dipilih menggunakan nonprobability sampling melalui teknik purposive sampling. Pengumpulan data dilakukan melalui dokumentasi dan pengujian. Pengujian hipotesis dilakukan dengan menggunakan analisis regresi linier sederhana. Hasil penelitian menunjukkan dampak yang signifikan dari metode pengajaran index card match terhadap prestasi akademik siswa kelas delapan. Hal ini dibuktikan dengan analisis data, yang mengungkapkan nilai signifikansi 0,000 menggunakan regresi linier sederhana. Nilai ini menandakan bahwa hipotesis alternatif (H_a) diterima sedangkan hipotesis nol (H_0) ditolak, mengingat bahwa nilai signifikansi yang diperoleh (0,000) kurang dari 0,05. Oleh karena itu, dapat disimpulkan bahwa penerapan metode pengajaran Pencocokan Kartu Indeks berpengaruh signifikan terhadap capaian akademik siswa kelas delapan mata pelajaran Pendidikan Pancasila.

ABSTRACT

The utilization of teacher-centered learning models has been shown to adversely affect students' academic performance. This study aims to analyze the impact of implementing the Index Card Match teaching method on the academic outcomes of eighth-grade students in the subject of Pancasila Education. The research employed an experimental method with a quantitative approach. A sample size of 70 students was selected using nonprobability sampling through purposive sampling techniques. Data collection was carried out via documentation and tests. Hypothesis testing was conducted using simple linear regression analysis. The results of the study indicate a significant impact of the Index Card Match teaching method on the academic performance of eighth-grade students. This is evidenced by the data analysis, which revealed a significance value of 0.000 using simple linear regression. This value signifies that the alternative hypothesis (H_a) is accepted while the null hypothesis (H_0) is rejected, given that the obtained significance value (0.000) is less than 0.05. Therefore, it can be concluded that the implementation of the Index Card Match teaching method has a significant effect on the academic outcomes of eighth-grade students in the subject of Pancasila Education.

1. INTRODUCTION

The advancement of Pancasila education in Indonesia demonstrates shifts in both pedagogical techniques and national educational objectives. Prior to the Merdeka Curriculum, Pancasila education frequently slipped into a confessional paradigm, emphasizing certain normative characteristics. However, with the transition to the Merdeka Curriculum, this approach has become more inclusive, emphasizing on the development of critical thinking abilities, civic values, and character formation building (Adi et al., 2022; Oktaviani & Aulia, 2024). Although the Merdeka Curriculum offers new opportunities to integrate Pancasila education into a broader and more relevant context for students' lives, its implementation presents challenges. One of the main challenges is how to adapt active learning approaches, which position students as active participants in their learning process, to the often normative nature of Pancasila education, which is better suited to traditional approaches (Charlina et al., 2022; Nugraha et al., 2022). While active learning strategies such as discussions, role-playing, or problem-based projects might be more engaging for students, applying these effectively in the context of Pancasila education requires creative thinking and

careful adjustments (Cohen, 2021; Dewi et al., 2020). One major issue that arises is the gap between the goals of Pancasila education and students' interest and motivation to learn. Content that is often perceived as boring or overly normative can lead to a decline in student interest, negatively impacting their learning outcomes (Blevins et al., 2021; Safitriani & Manan, 2023). The use of conventional teaching methods, characterized by one-way communication where teachers dominate the learning process, often fails to capture students' attention effectively (Clay & Rubin, 2020; Putri & Tirtoni, 2022). Consequently, students' learning outcomes tend to decline because they are not actively engaged in the learning process. Therefore, an active learning model that can attract students' interest and optimize their learning outcomes is necessary. One solution that can be employed is the Index Card Match learning model, which allows students to actively engage in learning while understanding complex Pancasila concepts (Mulyono et al., 2022; Walldén & Larsson, 2023).

Learning models index card match is designed to address learning issues by having students match or find pairs of cards having questions and answers (Subagyo, 2018; Yusuf et al., 2023). This active learning model is both enjoyable and effective, serving as a tool to review material that has been or will be taught. It is characterized by a card game where students must find the correct pairs using paper slips containing questions and answers (Farida, 2021; Raihan et al., 2023). Learning models index card match is a fun and effective strategy for revising previously learned material. This model not only helps students remember what they have learnt, but also tests their expertise and abilities. Students are asked to find pairs based on cards containing questions and answers, then match them (Hasanah, 2023; Palapa, 2023). Teachers often provide a lot of Advice to students, hoping That the substance can be delivered in a timely manner (Sari & Agustini, 2019; Yulivia & Sari, 2023). However, the goal of education is not just to complete the material on time but also to ensure how well students understand it. The effective ways to ensure effective learning is to provide time to review what has been learned. In this context, Learning models index card match becomes an An successful strategy for increasing student participation in the teaching-learning process and ensure that the material taught is well understood by students in a fun and interactive environment (Prabowo et al., 2020; Rahmayani & Ramadan, 2021). However, once again, implementing active learning models is not easy. Adjustments are needed to ensure that these models are relevant to students' needs and conditions and take into account technological and media developments. For instance, using audiovisual media can optimize student learning by presenting Pancasila material in a more attractive and easily digestible format (Fozdar & Martin, 2020; Maksun & Purwanto, 2022). By leveraging modern technology and media, it is hoped that these active learning models can be more effective in enhancing students' understanding and appreciation of Pancasila values and motivating them to apply these values in their daily lives.

In today's digital era, where technology is an integral part of daily life, Learning models index card match it could be further optimized by utilizing technology (Hartiningrum, 2019; Raipartiwi, 2022). One way to enhance the effectiveness of this method is by integrating the Index Card Match concept into digital media through a "match up" learning application. With this application, students can play with digital cards containing concepts or values of Pancasila (Nurohmah et al., 2021; Syaiful et al., 2021). They will match these cards based on relevant relationships, such as the relationship between the principles of Pancasila or examples of applying Pancasila values in daily life.

The transition from conventional methods to digital media offers various advantages. Using the "match up" application not only makes learning more interactive and engaging for students but also allows for content enrichment through audio, video, or animations that can strengthen students' understanding (Harefa et al., 2021; Sinaga et al., 2023). Thus, this application helps address the limitations of time and preparation that often pose challenges in conventional methods and reduces potential classroom disturbances with a more structured and guided learning experience. Integrating technology into learning models index card match creates opportunities to deepen student understanding of the material taught (Khairunisa et al., 2023; Suhardini, 2022). By using digital media, students can learn in a more enjoyable and interactive way, ultimately enhancing learning effectiveness. Additionally, using learning applications allows teachers to monitor students' progress more effectively and provide quicker and more accurate feedback (Fatimah & Santiana, 2017; Hariandi et al., 2023). Thus, Learning models index card match integrated with digital technology becomes a comprehensive solution to enhance students' understanding and appreciation of Pancasila values and motivate them to apply these ideals guide their everyday life.

By engaging the educational community, parents, and the surrounding environment, additional support can be provided to strengthen students' understanding and appreciation of the national values embedded in this subject (Seprianto, 2019; Tarapanjang & Bano, 2022). The integration of various effective teaching strategies and comprehensive support from the surrounding environment is expected to provide a significant boost in improving the learning implications of Pancasila Education for students at SMP Negeri 1 Martapura. The causes of low student learning implications of in Pancasila Education include students

appearing passive during the learning process. Students are less given the opportunity to engage actively and creatively in the learning process; their interest isn't sufficiently aroused (Simbolon et al., 2022; Tias et al., 2020). The learning process becomes unenthusiastic; students appear restless, disinterested, and some even engage in self-amusement. Furthermore, students often feel bored with Civic Education classes.

Therefore, the evolution of Pancasila education in Indonesia not only involves changes in the curriculum and teaching approaches but also requires continuous and profound thinking on how to effectively deliver this material to the increasingly connected and diverse younger generation (Fadlilah, 2022; Wahyuningtyas, 2022). Ideally, learning models index card in Pancasila education must consider several important factors. First, the content of these cards must be relevant to the Pancasila material to be conveyed and designed to spark students' interest and critical thinking (Oktaviani et al., 2024; Silva et al., 2020). Second, the visual design of these cards must be attractive and easy to understand by students so that they can easily comprehend the relationships between the presented concepts. With appropriate adjustments and the use of technology (Ravi et al., 2021; Theobald et al., 2020), Pancasila education can become more effective and engaging for students, thereby achieving national educational goals more effectively and positively impacting student learning outcomes with the use of appropriate and effective teaching models. This study aims to analyze the impact of implementing the Index Card Match teaching method on the academic outcomes of eighth-grade students in the subject of Pancasila Education. The novelty of this study is to apply the ICM model, which is typically utilized for general subjects, to the context of Pancasila Education.

2. METHOD

The methodology employed in this study involves an experimental approach using quantitative methods to investigate the impact of learning models index card on seventh-grade students' learning outcomes in Pancasila Education at SMP N 1 Martapura. The study includes two main variables: the implementation of the index card match learning method (Variable X) and the students' learning outcomes (Variable Y). The sample size of 70 students, comprising 35 students from each class, was determined based on Statistic analysis of power ensures appropriate power to identify significant distinctions between the experimental and control groups. Purposive sampling was utilized to select participants, allowing for the intentional selection of classes with comparable academic levels and characteristics, which aligns with the study's objectives. Specifically, classes VIII.A and VIII.B were chosen to ensure homogeneity in terms of academic performance and other relevant factors (Sugiyono, 2021).

Data were collected through documentation and testing techniques. Documentation involved gathering relevant data such as student records, school information, and students' learning outcomes. The testing technique included assessing students' learning outcomes post-intervention using the Pancasila Education Knowledge Competence Instrument, specifically designed for this purpose. Statistical analyses were conducted to ensure the validity of the findings. The Shapiro-Wilk test was used to determine data normality, while Levene's test was used to establish variance homogeneity. Hypothesis testing was performed using an independent sample t-test, with significance levels set at 0.05 to determine the acceptance or rejection of the null hypothesis. These tests ensure that the assumptions for parametric testing are met, thereby validating the use of the t-test for comparing group means.

The Pancasila Education Knowledge Competence Instrument underwent thorough development and validation procedures to assure their reliability and validity. It was subjected to expert reviews and pilot testing to assess its effectiveness. Reliability was measured using cronbach's alpha coefficient indicates excellent internal consistency. Validity was ensured through content validation by subject matter experts and construct validation through factor analysis. These steps confirm the instrument is both reliable and valid for measuring student knowledge competence in Pancasila Education.

Overall, the study's methodology follows a structured approach to data collection and analysis, ensuring a clear and systematic process throughout the study. However, providing additional details on the rationale for the chosen sample size, the selection of purposive sampling, the specific statistical tests conducted, and the reliability and validity of the assessment instrument would enhance the methodological rigor and credibility of the study results. Research timeline and learning outcomes in this study are outlined as per Table 1 and Table 2 of learning model index card match.

Table 1. Schedule of Learning Activities in Research Implementation

No	Activity Date	Experimental Class (VIII A)	No	Activity Date	Control Class (VIII B)
1	Monday 13 November 2023	learning model index card match.	1	Wednesday, 15 November 2023	learning models giving question & getting answer
2	Monday 20 November 2023	learning model index card match.	2	Wednesday, 22 November 2023	learning models giving question & getting answer
3	Monday 27 November 2023	learning model index card match.	3	Wednesday, 29 November 2023	learning models giving question & getting answer
4	Monday 04 Desember 2023	learning model index card match.	4	Wednesday, 06 Desember 2023	learning models giving question & getting answer

Table 2. Pancasila Education Knowledge Competence Instrument

Elements and Phases.	Learning Outcomes (CP).	Learning Material	Learning Objective Flow (ATP)
Bhinneka Tunggal Ika/ D	Students are able to identify the diversity of ethnicity, religion, race, and inter-group differences within the framework of Bhinneka Tunggal Ika (Unity in Diversity). They can accept cultural diversity and change as a reality in community life and respond proportionally to the conditions present in their environment according to the roles and needs within society. Students understand the urgency of preserving traditional values, local wisdom, and culture, demonstrating examples of preserving these values. They cultivate a sense of responsibility and actively engage in preserving and maintaining the practices of traditional values, local wisdom, and culture within the global community.	Chapter 5: National Identity and National Culture	<p>5.1 Students are able to show gratitude to the Almighty for the noble cultural values possessed by the Indonesian society.</p> <p>5.2 Students are able to demonstrate participatory behavior in efforts to preserve and advance national culture.</p> <p>5.3 Students are able to show an appreciation for national culture as a unifying tool for the nation.</p> <p>5.4 Students are able to express pride in national culture on the global stage.</p>

3. RESULT AND DISCUSSION

Result

The test data was obtained by administering multiple-choice test questions before and after the Pancasila Education learning process. The Index Card Match learning method was applied in class VIII.A as the experimental group, while the giving question and getting answer method was employed in class VIII.B as the control group, focusing on Chapter 5: National Identity & National Culture. Subsequently, the test questions given to both classes were assessed. In the experimental class, before implementing the Index Card Match learning method, students had an average score of 69%. After the application of the Index Card Match method, the students' average score increased to 89%. Meanwhile, in the control class, before implementing the giving question and getting answer method, students had an average score of 63%. Following the application of this method, the students' average score rose to 71%. The guidelines for calculation and criteria for students' learning outcomes are as show in [Table 3](#).

Table 3. Categories of Students Learning Achievement Levels

No.	Percentage	Category	Description
1	100%	Maximum	SB
2	76% - 99%	Optimal	B

No.	Percentage	Category	Description
3	61% - 75%	Minimum	CB
4	≤60%	Low	KB

The comparison results of the overall summary of the average test scores between the experimental class using the Index Card Match learning method and the control class using the giving question and getting answer method to observe students' learning outcomes in Pancasila Education are presented in the following Figure 1.

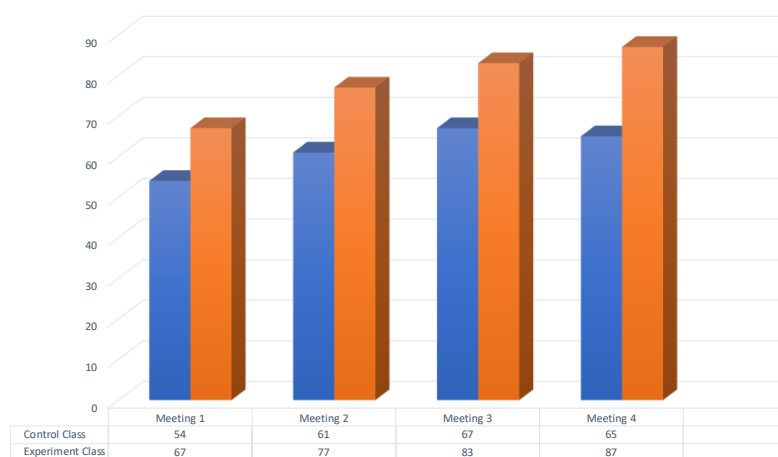


Figure 1. Comparison of Overall Average Percentage of Learning Outcomes

During the first meeting, the experimental class used the Index Card Match model, whereas the control group used the giving question and getting answer model. The results showed that in the first meeting, the average student score in the experimental class was 67, whereas the control group's was 54. This discrepancy exemplifies the early possible impact of integrating various learning methods. In the second meeting, the deployment of the Index Card Match model in the experimental class continued to have a good impact, with average student scores rising to 77. The control group, which use the giving question and getting answer approach, however, demonstrated progress, albeit at a lesser rate, with an average score of 61. The comparison between the two groups demonstrates the initial superiority of the Index Card Match model.

At the third meeting, the pattern of rising student scores in the experimental class persisted, with the average reaching 83. This demonstrates that the Index Card Match methodology consistently has a beneficial impact. On the other hand, the control group improved, however slightly, with an average score of 67. This comparison demonstrates the continuing superiority of the experimental class's learning paradigm. At the fourth meeting, the Index Card Match technique proved to be extremely effective, with average student scores rising to 87. In contrast, the control group showed slower progress, with an average score of 65. These findings demonstrate that the Index Card Match approach continues to have a substantial influence on student learning outcomes throughout. These results confirm that the Index Card Match model continues to provide a significant impact on student learning outcomes throughout the observed period.

Thus, the implementation of the Index Card Match model in learning has consistently demonstrated significant and consistent results in enhancing student academic achievement compared to giving question and getting answer model, as evidenced by the stable and greater increases in average student scores from meeting to meeting. Following the attainment of results from all meetings, the data was analyzed using Table 4 shows the results of the normality test, homogeneity test, and simple linear regression analysis.

Table 4. Analysis Results of Normality Test, Homogeneity Test, and Simple Linear Regression

No	Test	Pretest	Posttest	Homogeneity Test	Simple Linear Regression
1	To assess normality, use the Kolmogorov-Smirnov test	0.147	0.102		

No	Test	Pretest	Posttest	Homogeneity Test	Simple Linear Regression
2	Shapiro-Wilk Homogeneity Test	0.054	0.200	0.059 (p > 0.05, Homogeneous)	
3.	Regression Test				Sig. = 0.000 < 0.05 (Reject Ho, Accept Ha)

Base on [Table 4](#), the data normality test analyzes that the data distribution is normal. The normality test is used in the SPSS 22 software to determine if the analyzed data is normal. The significance value (sig) is calculated based on the following criteria: A significance level of less than 0.05 indicates that the data is not regularly distributed. If the significance value is more than 0.05, the data is normally distributed.

According to the statistical test results for normality testing above, the pretest's significance value of 0.054 > 0.05 shows that the data is normally distributed. Similarly, the posttest's significance value of 0.200 > 0.05 indicates that the data is distributed consistently. As a consequence, we may conclude that all of the data is uniformly distributed. The homogeneity test determines if the population variance of data between two or more groups is equivalent or differs. The Levene's Test is used to test for homogeneity, with a significance level of 5% ($\alpha = 0.05$). Data homogeneity is interpreted using the derived Sig value. The test's criteria state that a significant level of < 0.05 indicates that the group data variance differs. The interpretation of data homogeneity is based on the obtained Sig value. According to the criteria for this test are: If the significance is < 0.05, it means that the group data variance is not the same or not homogeneous. If the significance is > 0.05, it means that the group data variance is the same or homogeneous.

The homogeneity test results reveal a significance value of 0.059 for the pretest-posttest. Because 0.059 > 0.05, it implies that the study data contains distinct variances and hence is regarded homogenous. In this study, hypotheses are tested using basic linear regression with SPSS version 22. According to data analysis approaches, hypothesis testing requires a comparison of computed statistics and table statistics. The test criteria are as follows: If the significance level exceeds 0.05, the value of the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_a) is rejected. If the significance level is < 0.05, H_0 is rejected, whereas H_a is approved. The coefficients table shows that the basic linear regression test had a significance level of 0.000 < 0.05. as a result, we might deduce that H_0 is rejected but H_a is accepted. thus, the conclusion made is that the use learning models index card match method has a substantial impact on the learning outcomes of seventh-grade students at pancasila education at SMP N I Martapura.

Discussion

The study provides persuasive evidence of a considerable influence on improved average results in learning among students in class VIII.A, who obtained an astounding 79%, classed as good, and those in Class VIII.B, who earned a respectable 65%, classified as quite good. This substantial difference highlights the Index Card Match learning technique's superior performance when compared to the giving question and getting answer approach ([Asang, 2023](#); [Bribin, 2022](#)). The basic linear regression test in the Coefficients table shows a significance level of 0.000 < 0.05, rejecting the null hypothesis (H_0) and accepting the alternative hypothesis (H_a). Therefore, it is convincingly demonstrated that the adoption of The Index Card Match approach has a considerable impact on the learning outcomes of eighth-grade students in Pancasila Education at SMP N 1 Martapura ([Hamidah et al., 2022](#); [Khotimah et al., 2023](#); [Widodo, 2023](#)).

Further exploration into the intricacies of the study reveals the nuanced advantages of integrating the Match Up model within The Index Card Match over the traditional Giving Question and Getting Answer method ([Hakiki & Cinta, 2021](#); [Pane et al., 2022](#); [Sudarmaji, 2020](#)). Firstly, the Index Card Match model with Match Up assistance fosters a dynamic and collaborative learning environment. Unlike the GQGA method, where interactions predominantly occur between the teacher and individual students, the Index Card Match method encourages students to engage directly with their peers ([Cole et al., 2021](#); [Michael et al., 2023](#)). This collaborative endeavor not only amplifies active participation but also cultivates a sense of shared responsibility for learning outcomes. This peer-to-peer interaction is pivotal as it helps students develop critical social skills, such as communication and teamwork, which are essential for their overall development ([Lamb et al., 2022](#); [Supriyatno et al., 2020](#); [Yulando et al., 2019](#)).

Moreover, the Index Card Match model promotes social engagement and cooperation among students. By necessitating collaboration to find matching answers, students naturally support and learn from one another, fostering a cohesive and inclusive learning community ([Nuraini, 2022](#); [Rambe, 2018](#)). In contrast, the Giving Question and Getting Answer method, with its emphasis on individualized responses, may inadvertently hinder opportunities for peer learning and collaboration. This method emphasizes a more traditional approach where the teacher remains the central figure of authority, potentially limiting students' opportunities to explore and understand concepts through interaction with their peers. The shift

to a more student-centered approach, as facilitated by the Index Card Match method, empowers students to take an active role in their learning process, enhancing their ability to retain and apply knowledge effectively (Ali, 2019; Marliah, 2022).

Beyond its pedagogical implications, The Index Card Match model with Match Up assistance injects an element of enjoyment and interactivity into the learning process (Damayanti, 2022; Rohman, 2021). The act of matching answers on cards introduces a gamified approach, transforming learning into a stimulating challenge. This gamified strategy not only sustains students' interest but also promotes deeper engagement and retention of Pancasila principles (Andhika & Setiawan, 2022; Usman & Yunus, 2020). In contrast, the Giving Question and Getting Answer method, with its conventional question-and-answer format, may lack the novelty and excitement necessary to captivate students' attention effectively. The interactive nature of The Index Card Match method can be particularly beneficial in maintaining students' motivation and enthusiasm for learning, which are critical factors in achieving long-term educational success (Asang, 2023; Bribin, 2022; Ihsan, 2021).

In summary, the comprehensive analysis underscores the multifaceted effectiveness of The Index Card Match model with Match Up assistance in optimizing students' learning outcomes (Mahendra et al., 2023; Yudiantika & Harini, 2018). By facilitating active interaction, fostering social cooperation, and infusing learning with an element of fun, this innovative approach transcends the limitations of traditional teaching methods. As educators navigate the evolving landscape of pedagogy, embracing such experiential and collaborative learning models holds immense promise in nurturing well-rounded and engaged learners (Nugraha et al., 2022; Octary et al., 2022; Tampi et al., 2023). This method not only enhances academic performance but also prepares students to thrive in a rapidly changing world by equipping them with the skills necessary for lifelong learning and adaptation. Thus, the Index Card Match model with Match Up assistance represents a significant advancement in educational methodology, offering a robust framework for improving student engagement and achievement in Pancasila Education and beyond.

Moving forward, future research could address these limitations and further explore the effectiveness of active learning methods in Pancasila Education. One avenue for future investigation could involve conducting similar studies with larger and more diverse samples from multiple schools to enhance the external validity of the findings. Additionally, employing longitudinal designs to assess the long-term effects of active learning methods on students' understanding and retention of Pancasila principles could provide valuable insights. Furthermore, qualitative research approaches such as interviews or focus groups could supplement quantitative data by offering deeper insights into students' perceptions and experiences with different teaching methods. Overall, Addressing these constraints and pursuing these opportunities for future study can help to a more thorough knowledge of the impact of active learning methods in Pancasila Education.

4. CONCLUSION

Based on the data analysis and discussion, it can be concluded that there is a significant influence from the application of the Index Card Match learning method on the learning outcomes of eighth-grade students in Pancasila Education at SMP N 1 Martapura. This is evident from the analysis using the simple linear regression test, which yielded a significance value of .000. The decision to accept H_a and reject H_o is supported by the Coefficients table, where the significance level obtained is $.000 < 0.05$. Therefore, the conclusion drawn is that there is a significant influence from the application of the Index Card Match learning method on the learning outcomes of eighth-grade students in Pancasila Education at SMP N 1 Martapura. Based on the data analysis and discussion, it is crucial to acknowledge certain limitations of the study. Firstly, the sample size in this research was relatively small, limited to eighth-grade students at SMP N 1 Martapura. This constraint might restrict the generalizability of the findings to a broader population. Moreover, methodological considerations such as the duration of the intervention and potential confounding variables were not extensively addressed, which could have influenced the results.

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