



The Effectiveness of Index Card Match Strategy to Improve the Eighth Graders' Narrative Text Reading Comprehension in SMP N 2 Secang

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Index Card Match strategy, narrative text, reading comprehension.

ABSTRACT

Reading is essential for English language learners, as it enhances their comprehension and academic success. However, eighth-grade students at SMPN 2 Secang confronted challenges regarding reading comprehension, necessitating the implementation of suitable learning strategies to improve their understanding of texts. The objective of this study is to find out how effective is the use of Index Card Match strategy for students' reading comprehension improvement of narrative text and to find out the difference in reading comprehension of narrative text between the students who are taught by using Index Card Match strategy and STAD (Students Team Achievement Division) strategy. This study carried out quantitative research in Quasi-Experimental Design. Two classes were involved in this study, class VIII-F (experiment class) and class VIII-G (control class), with 65 students at SMP N 2 Secang. Reading comprehension tests were administered as the instrument for collecting data. The result of this study reveals that the experiment class showed an improvement in their posttest scores compared to the pretest. Moreover, the N-gain score results in 48.6013, meaning that the Index Card Match strategy falls into the less effective category. The independent sample t-test reveals a significant value of 0.071, which exceeds 0.05, indicating that the scores of the two groups are pretty similar, as well as the acceptance of H_0 (null hypothesis). This study holds significant implications for enhancing teaching and learning practices in junior high school contexts. The findings can contribute to developing adaptive learning strategies, ultimately improving students' engagement and academic performance in reading.

Introduction

Reading is an essential skill for students to grasp English materials (Hilmi, 2024). Mastering English requires students to read correctly (Menakaya et al., 2022). Providing students with reading ability, therefore, becomes one of the goals of teaching English in Junior High School, together with listening, speaking, and reading. As reflected in the learning purpose of *Kurikulum Merdeka*, students are able to read independently and respond to familiar and unfamiliar texts containing certain structures and vocabulary. The

students also discover and evaluate the primary ideas and specific information in texts of different genres. Moreover, the students identify the purpose of texts and begin to make inferences to comprehend implicit information in the text. Students read for the purpose of processing information, applying critical thinking, retrieving prior knowledge, and obtaining new knowledge from the passages they read (Ramolula & Molebatsi, 2023).

There are several essential components within reading activity, one of which is comprehension. As pointed out by Baddane and Ennam (2023), reading comprehension is the essence of reading since it aims to earn the meaning of the texts. Students' triumph in learning English is influenced in this context by teaching and learning process. Accordingly, teachers play an invaluable role in helping students to attain a comprehensive understanding of the text. This highlights the demand to implement suitable teaching and learning strategies to facilitate students' comprehension of the materials.

Mastering reading comprehension is crucial for students because they need to have reading comprehension skills to comprehend material such as recognizing topics, primary ideas, details, vocabulary, and inferences (Ferina, 2015). The curriculum places a high value on students' ability to comprehend what they read. However, low interest in reading, which leads to deficient reading comprehension occurs in junior high school students in Indonesia. The low reading comprehension of Indonesian secondary school students is primarily caused by three key factors: limited vocabulary mastery, lack of motivation, and inadequate prior knowledge (Nanda & Azmy, 2020). In addition, according to the writer's observations, there are several problems confronted by the eighth grade students of SMPN 2 Secang in regard to reading comprehension. Students demonstrated less active participation in class. The students tended to work on their assignments individually and have less cooperation. The reading comprehension teaching strategies that were used frequently turned out to be ineffective. The strategies mainly depended on the traditional methods in which students were instructed to read the text aloud and searched individually for unfamiliar words in the dictionary before responding to comprehension questions. Thus, the students tended to be passive learners during the teaching and learning process.

In case of facing difficulties, students generally favored asking the teacher for help instead of cooperating with their friends. Hence, the students grew too dependent on the assistance of the teacher or squander time on dictionaries. Furthermore, students had obstacles in comprehending the text. The lack of vocabulary mastery could be a contributing factor to their difficulty understanding the text. Grammatical difficulties also exacerbated the students' struggle to comprehend the text. Therefore, reading was seen as a challenging and tedious activity. The assertions above imply that it is necessary to employ innovative learning strategies for teaching reading in school. The Index Card Match strategy offers active learning that gives an opportunity for students to work together with their friends through discussions in which the students work actively to comprehend the information on the cards and attempt to match them (Syamsiah, 2024).

The idea of employing the Index Card Match strategy in the teaching and learning process is a concept that has been introduced previously in an educational context. Research conducted by Arifah (2021) found that the students were more engaged in reading lessons, once the Index Card Match strategy was executed. Another study by Ruspa et al. (2023)

accentuated on the influence of Index Card Match on students' reading comprehension and found that the Index Card match performed well in improving students' score. Putinella (2021) also found that the students performed better in vocabulary after implementing the Index Card Match. Stemming from those research findings, the performance of the Index Card Match strategy in enhancing students' skills is effective. On the other hand, more focused or in-depth research on narrative text material is still required to disclose the impact on students' reading comprehension, even if numerous studies on the utilization of the Index Card Match strategy have had a positive significance on the learning process. Therefore, the present study attempts to find out the effectiveness of Index Card Match strategy on the students' reading comprehension in the material narrative text. Aside from the Index Card Match, the Students Team Achievement Division (STAD) is involved in the present study as another cooperative teaching strategy. Thus, considering the study's background, the main problems are:

1. How effective is the use of Index Card Match strategy for students' reading comprehension improvement of narrative text?
2. Is there any difference in reading comprehension of narrative text between the students who are taught by using Index Card Match strategy and the students who are taught by using STAD (Students Team Achievement Division) strategy?

In addition, the writer formulated the hypothesis as follows:

1. (H_a) : There is a difference of the students' reading comprehension who were taught by using Index Card Match and STAD.
2. (H_0) : There is no difference of the students' reading comprehension who were taught by using Index Card Match and STAD.

Research Methods

The type of research the writer employed in this study is quantitative research in Quasi-Experimental Design (Nonequivalent Control Group Design). This type of experiment research involves participants being divided into an experimental group and a control group (Sugiyono, 2018). Both of the groups receive a pretest and a posttest. The eighth graders of SMP N 2 Secang in the academic year 2024/2025 were the population of this study. There were eight classes for eighth graders of SMP N 2 Secang. The total population from class A to H was 260 students. This study employed a purposive sampling technique, which means classes with low reading comprehension were chosen for sampling. In addition, purposive sampling is utilized for convenience to the researcher, with participants being selected due to their presence in the ideal situation at the appropriate time. The sample for the experimental class was class VIII-F, which had 34 students, and the control class was class VIII-G, which had 31 students.

This study employed a reading comprehension test as a research instrument. The purpose of the test was to evaluate the students' reading comprehension abilities. In order to disclose the effectiveness of the Index Card Match strategy on students' reading comprehension, the writer offered 20 questions for each of the pretest and posttest, and asked students to answer the questions to assess their reading comprehension. Following

the administration of the pretest, the control class received the Students Team Achievement Division (STAD) and the experiment class received the Index Card Match strategy .

In this study, the researcher looked at the information regarding students' improvement in reading comprehension from both the pretest and posttest. A test was provided to the students to determine whether the experiment and control groups differed significantly in their ability to increase reading comprehension in narrative text. The researcher conducted statistical calculations using IBM Statistical Software Package for Social Sciences (SPSS) 25.0 for Windows which include normality test, homogeneity test, and hypothesis test.

Findings

The research findings are contained in this section. It takes in the data analysis of normality, homogeneity, N-Gain, and hypothesis tests. Correspondingly, the explanation of each test is as follows.

The Normality Testing Result

The normality test used in this study is Kolmogorov-Smirnov and was carried out using the IBM Statistical Package for Social Sciences (SPSS) software 25.0 for Windows. This test assessed the normality of students' pretest and posttest scores in both the control and experiment classes. The basis for the calculating decision making is based on the following. If, (sig.) > 0.05 so the data is distributed normally. If, (sig.) < 0.05 so the data is not distributed normally. The result of the normality test can be viewed on Table 1.

Table 1. The Normality Test of Students ' Scores in Control and Experiment Class

Test of Normality		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Result of Reading Comprehension	Pretest Experiment	.120	34	.200*	.945	34	.085
	Posttest Experiment	.126	34	.189	.963	34	.296
	Pretest Control	.144	31	.102	.941	31	.089
	Posttest Control	.148	31	.082	.958	31	.265

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

From Table 1, it is observable that the pretest result of the p-value of the control class is 0.102, and the experiment class is 0.200. Both the p-values of the control and experiment classes indicated that they are higher than the significance level α (set at 0.05), so it can be stated that the pretest data of the control and experiment classes are considered normal. In addition, it is evident that the posttest result of the p-value of the control class is 0.082, and the experiment class is 0.189. The p-values of the control and experiment classes indicated

that they are higher than the significance level α (set at 0.05). Therefore, it can be stated that the posttest data of the control and experiment classes are considered normal.

The Homogeneity of Variance Testing Result

The second test pertains to the homogeneity of variances. It utilized to test of the homogeneity of two variances on the data pretest and posttest results. A homogeneity test was managed to resolve whether the variance test data was homogeneous or inhomogeneous. The basis for decision making is based as follows. If, (sig.) > 0.05 then the data distribution is homogeneous If, (sig.) < 0.05 then the data distribution is not homogeneous. The result of the homogeneity test can be seen on Table 2.

Table 2. The Homogeneity Test of Students' Scores in Control and Experiment Class

Test of Homogeneity of Variance		Levene Statistic	df1	df2	Sig.
Result of Reading Comprehension	Based on Mean	2.697	1	63	.105
	Based on Median	1.965	1	63	.166
	Based on Median and with adjusted df	1.965	1	54.602	.167
	Based on trimmed mean	2.693	1	63	.106

As displayed in Table 2, the result of the significance value for both the control and experiment class students' pretest is 0.105. It indicated that it is higher than the significance value of 0.05. Therefore, the data from the control and experiment class students' pretests were homogeneous. Meanwhile, the result of the significance value for both the control and experiment class students' posttest is 0.106. It indicated that it is higher than the significance value of 0.05. Therefore, the data from the control and experiment class students' posttests were homogeneous.

Hypothesis Testing Result

This study used two kinds of tests to test the hypothesis and answer the main problems of this study. N-Gain test was managed to find out the answer to the first main problem of this study; meanwhile, an independent sample t-test was utilized to find out the answer to the second main problem of this study as well as to test the hypothesis.

The 1st main problem of the study: How effective is the use of Index Card Match Strategy for students' reading comprehension improvement of narrative text?

This study utilized the N-Gain test to measure how effective is the use of Index Card Match Strategy for students' reading comprehension improvement of narrative text. The basis for decision making can be determined using index interpretation category in percent of N-Gain test by (Hake, 1999) in Table 3.

Table 3. Index Interpretation Category

N-Gain Score in Percent	Category
< 40	Ineffective
40 - 55	Less Effective
56 - 75	Moderately Effective
> 76	Effective

In conducting the analysis, the data used are the pretest and the posttest score on both of control and experiment class. The results of the analysis by using the N-Gain test are depicted in Table 4.

Table 4. The Result of N-Gain Test

Test	Group of Class	Mean	Maximum	Minimum
Statistic				
N-Gain	Experiment Class	48.6013	68.75	27.27
Test	Control Class	42.2201	100.00	16.67

As Table 4 displays, the mean result for the experiment class is 48.6013. Based on the calculations of the N-gain score test presented above, the average N-gain score for the experiment class utilizing the Index Card Match strategy is 48.6013, or 48.6%, which falls into the category of less effective. The N-gain score ranges from a minimum of 27.27 to a maximum of 68.75. In addition, the average N-gain score for the control class employing the STAD strategy is 42.2201, or 42%, also categorized as less effective, with a minimum score of 16.67 and a maximum of 100.00. Thus, it can be concluded that the implementation of the Index Card Match strategy is less effective in reading comprehension improvement of narrative text among eighth-grade students at SMP N 2 Secang.

The 2nd main problem of the study: Is there any difference in reading comprehension of narrative text between the students who are taught by using Index Card Match Strategy and the students who are taught by using STAD (Students Team Achievement Division) strategy?

This study utilized the independent sample t-test to find out if there is a difference in reading comprehension of narrative text between the students who are taught by using Index Card Match Strategy and the students who are taught by using STAD (Students Team Achievement Division) strategy. In addition, the independent sample t-test was also used to test the hypothesis. The basis for decision making is that if the significance value is below 0.05 ($p < 0.05$), then t-count is significant, meaning the two groups' scores differ significantly. Meanwhile, if the significance level exceeds 0.05. ($p > 0.05$), the calculated value is

insignificant, meaning scores are not clearly distinguished between the two groups. The results of the independent sample t-test is presented in Table 5.

Table 5. The Result of Independent Sample T-test

			Levene's Test for	t-test for Equality of
			Equality of	Means
			Variances	
			Sig.	Sig.(2-tailed)
N- Gain_Percent	Equal	variances	.133	.071
	assumed			
	Equal	variances	-	.078
	not assumed			

Refer to Table 5, the significance value (Sig) in Levene's Test for Equality of Variances is 0.133 (>0.05), indicating that the variance of N-gain (%) data for the experimental and control classes is homogeneous. Therefore, the Independent Sample T-test is implemented according to the significance (Sig) values presented in the Equal Variances Assumed table.

According to the output table for the Independent Sample T-test, the Sig. (2-tailed) value is $0.071 > 0.05$. Consequently, it can be concluded that there is no significant difference between the use of the Index Card Match strategy and the STAD strategy in reading comprehension improvement of narrative text material among eighth-grade students at SMPN 2 Secang. Furthermore, the alternative hypothesis (H_a) is rejected, and the null hypothesis (H_0) is accepted, so it can be concluded that there is no difference in the use of the Index Card Match strategy and STAD strategy on students' reading comprehension of narrative text among eighth graders at SMPN 2 Secang.

Discussion

According to the data of this study, the control class, which implemented the Students Team Achievement Division (STAD) strategy, had an average preexperiment score of 49.8. Following the intervention, this average increased to 69.7. Conversely, the experiment class that employed the Index Card Match strategy, starting with a pretest average 41.8, which further increased to 70.1 in the posttest. These results indicate that the Index Card Match strategy may be more effective than the STAD strategy. Although the independent sample t-test did not reveal a statistically significant difference (Sig. 2-tailed = $0.071 > 0.05$) between the pretest and posttest scores of the two groups, the experiment class's higher posttest average of 70.1 compared to the control class's 69.7 lends support to this conclusion.

The writer carried out a pretest involving both the control and experiment classes. The control class consisted of class VIII G, which included 31 students, while the experiment group was class VIII F, with 34 students. Both groups encountered various challenges during the pretest. These issues stemmed from a need for more motivation among students to engage with the narrative text presented in the questions. Additionally, many students

needed help comprehending the reading passage due to insufficient vocabulary mastery, as evidenced by several inquiries about the meanings of words in the questions. The Index Card Match strategy was implemented as a solution to address these challenges.

After conducting the pretest in both classes, the experiment class utilized the Index Card Match strategy, while the control class followed the STAD strategy. Throughout the implementation of the Index Card Match, students in the experiment class displayed enthusiasm, benefiting from pairing up with classmates to understand the material, particularly in narrative texts. On the other hand, the control class worked collaboratively in groups of four or five under the STAD strategy. Following the treatments, both classes completed a posttest. Since the students had already covered narrative text content, they approached the posttest more confidently. Notably, the experiment class appeared more engaged during the posttest, and both groups completed the questions more quickly compared to their pretest performance.

This study's findings turned out to be not consistent with other research on similar topics, including that of Hanimah and Niswa (2023), who found a significant effect of using the Index Card Match strategy on students' listening comprehension at SMP Swasta Al-Hikmah. The Index Card Match Strategy was also categorized as more effective than the conventional method. Additionally, Nurhasanah and Sulisty (2019) demonstrated a significant difference in reading comprehension of sophomore students between those taught by using Team Games Tournament and those taught by using Index Card Match. In addition to seeing improvements in academic performance, Syamsiah (2024) discovered a significant difference between the use of Practice Rehearsal Pairs strategy and the Index Card Match strategy on the biology learning outcomes. Appealingly, this study disclosed that the implementation of the Index Card Match strategy was found to be less effective. Moreover, it was uncovered that there is no significant difference in narrative text reading comprehension between students taught using the Index Card Match strategy and those taught with the STAD strategy.

Despite the Index Card Match strategy being initially categorized as less effective in this study, all students demonstrated an improvement in their posttest scores compared to the pretest. The areas of improvement include comprehending the texts, vocabulary mastery, and recognizing of reference words. This indicates that the strategy was successfully utilized to enhance reading comprehension of narrative texts among the eighth graders at SMPN 2 Secang. After conducting pretests, treatments, and posttests in both the control and experiment classes, the Index Card Match strategy positively influenced students' learning outcomes, particularly regarding narrative texts. Students were more interested in the learning process due to the unusual and enjoyable learning strategy of the Index Card Match, which differs from usual learning. These observation results are in line with Kisman et al. (2024) who noted that the Index Card Match strategy can boost students' motivation and enhance their understanding of the material. The enthusiasm of students while completing assignments during the Index Card Match activities further illustrated this engagement. This alignment with previous research provides reassurance about the strategy's validity and its potential to improve student engagement.

The students demonstrated activeness and deeper understanding when studying narrative texts, as evidenced by their ability to answer questions posed by the teacher. Additionally, their posttest scores surpassed those of the pretest, indicating an improvement in reading comprehension skills. This finding aligns with research by Husain and Abidin (2023), which highlights that using the Index Card Match strategy enhances student participation and activeness in learning. Furthermore, Jumainah et al. (2023) suggested that the atmosphere during Index Card Match sessions was particularly lively, contributing to heightened motivation among students.

Conclusion

According to the analysis of the data presented earlier, it can be derived from this study that the effectiveness of the Index Card Match strategy on reading comprehension of narrative texts for the eighth graders at SMPN 2 Secang was found to be less effective, as evidenced by an N-gain score of 48.6013, which falls into the less effective category. Nevertheless, the students expressed enjoyment and motivation using the Index Card Match strategy during the learning activities. Furthermore, there is no significant difference in narrative text reading comprehension between students who were taught by using the Index Card Match strategy and those who were taught with the STAD strategy among the eighth graders at SMPN 2 Secang. The independent sample t-test reveals a significant value of 0.071, which exceeds 0.05, indicating that the scores of the two groups are quite similar, thus supporting the acceptance of the null hypothesis (H_0). As for recommendations, by examining various aspects of learning materials and a wider range of contexts, researchers can build upon the findings of this study and further enhance our understanding of effective teaching strategies. This work has limitations, including its exclusive focus on reading comprehension, using only narrative texts, and its application solely within junior high schools. However, upcoming studies could overcome these limitations and contribute to the advancement of educational research.

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