

THE EFFECTIVENESS OF USING CARD SORT STRATEGY TOWARD STUDENTS' READING COMPREHENSION OF DESCRIPTIVE TEXT

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ABSTRACT

This research aims to find out the effectiveness of using the card sort learning strategy on the reading comprehension ability of class VII MTs NU 01 Batang. This research is experimental, with the quantitative research method using a posttest-only control design. There were 65 students; the experimental group consisted of 31 students (the seventh B grade), and the control group consisted of 34 students (the seventh A grade) taken randomly as the sample of this research. The data collection used was multiple-choice questions, which means the test consisted of 20 questions with the available answers A, B, C, and D and was related to three levels of reading comprehension, namely literal, inferential, and critical questions, as a reading comprehension ability test. The results show that there was a significant difference in students' reading comprehension between the control and experimental groups after the treatment. In the experimental group, the mean score was 76, which was higher than the mean score of the control group, which was 66. It is proven that the value of the t-test was 4.704, which was higher than the t-table of 1.998 for the level of significance of 5% and the degree of freedom of 63. It can be concluded that there is significant effectiveness of using the card sort strategy in increasing reading comprehension in the seventh grade at MTs NU 01 Batang.

Keywords: Card Sort Strategy, Reading Comprehension, Descriptive Text

ABSTRAK

Penelitian ini bertujuan untuk mengetahui keefektifan penggunaan strategi pembelajaran card sort terhadap kemampuan membaca pemahaman siswa kelas VII MTs NU 01 Batang. Penelitian ini merupakan penelitian eksperimen, dengan metode penelitian kuantitatif menggunakan posttest-only control design. Ada 65 siswa; kelompok eksperimen terdiri dari 31 siswa (kelas VII B), dan kelompok kontrol terdiri dari 34 siswa (kelas VII A) yang diambil secara acak sebagai sampel penelitian ini. Pengumpulan data yang digunakan adalah soal pilihan ganda, artinya tes terdiri dari 20 soal dengan pilihan jawaban A, B, C, dan D dan dikaitkan dengan tiga tingkat pemahaman bacaan, yaitu soal literal, inferensial, dan kritis, sebagai tes kemampuan membaca pemahaman. Hasil penelitian menunjukkan bahwa terdapat perbedaan yang signifikan pada pemahaman membaca siswa antara kelompok kontrol dan eksperimen setelah diberikan perlakuan. Pada kelompok eksperimen diperoleh nilai rata-rata 76 yang lebih tinggi dari nilai rata-rata kelompok kontrol yaitu 66. Terbukti bahwa nilai t-test adalah 4,704 lebih tinggi dari nilai t-tabel 1,998 untuk taraf signifikansi 5% dan derajat kebebasan 63. Dapat disimpulkan bahwa terdapat keefektifan yang signifikan penggunaan strategi card sort dalam meningkatkan pemahaman membaca pada siswa kelas VII MTs NU 01 Batang.

Kata Kunci: Strategi Card Sort, Pemahaman Membaca, Teks Deskriptif

INTRODUCTION

In the success of the teaching and learning process, the presence of the teacher in the teaching and learning process is necessary and plays an important role. The determination of a teacher in choosing an effective teaching method will result in achieving the desired learning objectives.

According to Bangun 2016: 22), a learning process that was not achieved the target can be said to be ineffective learning. The learning process is called to be effective if the teacher can harmonize the teaching and learning process properly following learning objectives and learning outcomes, such as in selecting methods, media, and evaluating students.

Moreover, Brown (2000: 167) argues that the role of the teacher as a facilitator is to guide and help students to engage in the thinking process and a spirit of respect for students' opinions, and must not impose his or her thought during teaching reading. With a proper selection of strategies, teachers will be easier to teaching-learning, and students will feel comfortable and receive the knowledge well that has

been given. Similarly, the teacher has an active role in motivating and rewarding their students' literacy, it can give effective reading itself.

Reading is a process carried out by the reader to get a message, which will be conveyed by the author through the intermediary of words or written media. In addition, reading is a process carried out and used by readers to find out messages using the author's words or written language. Furthermore, Herdiana (2009), reading is the process by which the reader gets information from the text. Meanwhile, reading involves a text, the ability to comprehend a text in language written form, and the use of strategies that help understand the text (Berhardt, 2011: 6). It can be concluded that reading is a way to construct cognitive power to understand and comprehend the text. Besides, the goal of reading is commonly to understand and comprehend the material English text because reading comprehension is a way for many people to understand scientific books they read.

Teaching reading is the recognition of various symbols written with existing knowledge, and comprehension of the information and communicative ideas. It explains that to help the students construct meaning, by integrating information from the text, students are influenced by their background knowledge and the purpose for reading (Brown, 2007). Considering mastering reading is one of the ways for mastering English it is an exploration of the extent to which this assumption may or may not be true is important (Hedgock and Ferris, 2009 in Bernhardt (2011: 5). It means the teacher should also be able to apply suitable strategies to improve the student's reading ability. In high school, students have to read some descriptive texts.

Descriptive text is the most common text for high school students because many things in the job activity use to describe a particular object in detail like tools, professions, etc. According to Priyana et al., (2008), descriptive text is a text used to give detailed information or characteristics of a specific a particular object. It describes a particular object like a thing, animal, person, or place. However, after doing the observation the writer found that the seventh-grade students of MTS NU 01 Batang have problems faced while English teaching-learning, one of them is difficulty comprehending the text that is taught, so that students have poor reading comprehension. The English teacher there explained that the student's reading comprehension achievement was still under expected standards so the rate percentage of students' scores in reading comprehension was still low. It is because the teacher still used the conventional way of teaching reading in which the teacher only gives a lecture with an explanation of the subject matter and gives the tasks or exercises so that students will feel bored quickly and are not interested in learning English, especially to learn to understand a text.

Based on the problem above, it needs appropriate and effective solutions, so the researcher wants to apply the card sort strategy to increase students' learning interests, especially in teaching reading. According to Silberman (2005: 169), card sort can be trusted to increase collaborative activities between students which can be used to teach concepts, characteristics or classifications, facts about objects, or information. The teacher who applies this strategy can encourage students to become active readers because completing the tasks given through card sort needs to create cooperative learning and students are more interactive. With the use of card sort, they must find their friends who have the same category cards and collaborate in a group or team. This research focuses on teaching reading comprehension with card sort as a teaching method and to know the significant effectiveness in increasing students' reading comprehension in learning descriptive text.

RESEARCH METHOD

This research is experimental research. Hence, the sample of the research was divided into two group designs, namely the experimental group and the control group, taken randomly. The seventh B grade as the experimental group is a group that is taught using the card sort method, while the seventh A grade as the control group is a group that is not taught using the card sort method. This research used a posttest-only control design with the aim to determine the effect of a learning model before and after being treated.

Figure 1. Posttest-Only Control Design

E	X	O ₂
K		O ₄

(Sugiyono, 2013:112)

Where:

- E : The experimental group is the class that is given treatment or taught using the card sort method.
- K : The control group is a class that does not give treatment or is not taught using the card sort method
- O₂ & O₄ : O₂ & O₄ Final test to see the students' final ability after the treatment is carried out.

A. Sample

The sample was taken from the data population of the seventh-grade students of MTs NU 01 Batang and the total samples used in this research were 65 students. This research used simple random sampling technique in which the samples were divided into two groups, they are: VII B consists of 31 students as the experimental group and VII A consisted of 34 students as the control group.

B. Data Collection

In this research, the post-test was used as a data collection instrument and also as a reading comprehension ability test to collect data in the form of multiple-choice questions consisting of 20 questions with the available answers A, B, C, and D. The questions of the reading test are related to identifying the main ideas, word meanings, communicative purposes, generic structure, and language features of the text. During the first meeting, the students were taught using card sort in the experimental class and without card sort in the control class. In the second meeting, the students were given a review and a test to measure their reading achievement and know the effect of the card sort. Each correct answer received one point, while each incorrect answer received zero points.

C. The Technique of Data Analysis

The data analysis was processed using the t-test statistical formula to analyze the data, so that the results of this processing can later be drawn to a conclusion to prove the hypothesis that there is significant effectiveness of using the card sort strategy on students' reading comprehension ability in learning descriptive text.

FINDINGS AND DISCUSSION

1. Findings

In this research, to obtain the results used the t-test formula to test the significant level of learning success between groups taught using the card sort strategy and groups not taught using card sort, to answer the problem formulation, and to find out whether the hypothesis was accepted or not. The statistical computing of the data on post-test results between the experimental group and the control group, it can be seen in Table 1 & Table 2.

Table 1. The Results of Posttest Students who was Taught by Card Sort Strategy (Experimental Group)

No.	Students' Codes	Score
1.	S1	70
2.	S2	60
3.	S3	85
4.	S4	60
5.	S5	90
6.	S6	65
7.	S7	85
8.	S8	70
9.	S9	70
10.	S10	70
11.	S11	80
12.	S12	80
13.	S13	85
14.	S14	70
15.	S15	80
16.	S16	75
17.	S17	75
18.	S18	75
19.	S19	80
20.	S20	60
21.	S21	70
22.	S22	80
23.	S23	75
24.	S24	80
25.	S25	70
26.	S26	85
27.	S27	80
28.	S28	80
29.	S29	70
30.	S30	95
31.	S31	75
	Σ	2370

Table 2. The Results of Posttest Students who was not Taught by Card Sort Strategy
(Control Group)

No.	Students' Codes	Score
1.	S1	70
2.	S2	60
3.	S3	85
4.	S4	55
5.	S5	80
6.	S6	65
7.	S7	60
8.	S8	75
9.	S9	75
10.	S10	55
11.	S11	65
12.	S12	65
13.	S13	85
14.	S14	70
15.	S15	50
16.	S16	70
17.	S17	70
18.	S18	75
19.	S19	60
20.	S20	60
21.	S21	65
22.	S22	70
23.	S23	55
24.	S24	65
25.	S25	50
26.	S26	70
27.	S27	60
28.	S28	80
29.	S29	70
30.	S30	70
31.	S31	65
32.	S32	75
33.	S33	50
34.	S34	70
	Σ	2245

From Table 1 & Table 2, it can be seen that the total score of the experimental group, which was taught by the card sort strategy is 2370 and the total score of the control group, which was taught by the card sort strategy is 2245.

The Computing Data Analysis

1. Experimental Group

Table 3. List of Data of the Students who was Taught by Card Sort Strategy

Interval Class	(Xi)	Fi	Xi.Fi	Bottom Edge	Top Edge
60-65	62.5	4	250	59.5	65.5
66-71	68.5	5	342.5	65.5	71.5
72-77	74.5	7	521.5	71.5	77.5
78-83	80.5	8	644	77.5	83.5
84-89	86.5	5	432.5	83.5	89.5
90-95	92.5	2	185	89.5	95.5
	Total	31	2375.50		

N	31
Max. Score	95
Min. Score	60
K	6
P	6

From Table 3, it can be seen that the maximal score of the experimental group who was taught the card sort strategy was 95, the minimum score was 60, the length of the interval class was 6, and the class of the interval was 6. Thus, the interval class was calculated to start at 60–65 because the length of the interval class was 6. Based on the results of computation with the used statistical formula, the following data were obtained: the result of the experimental group; the range score was 60 up to 95; the mean score was 76.63; the median score was 80.5; the modus score was 80.

Table 4. Computing for Standard Deviation and Variants

Interval Class	Xi	Xi	($\bar{x}$)	(xi- $\bar{x}$)	(xi- $\bar{x}$) ²	f(xi- $\bar{x}$) ²
60-65	4	62.5	76	-14.13	182.25	798.52
66-71	5	68.5	76	-8.13	56.25	330.41
72-77	7	74.5	76	-2.13	2.25	31.73
78-83	8	80.5	76	3.87	20.25	119.88
84-89	5	86.5	76	9.87	110.25	487.18
90-95	2	92.5	76	15.87	272.25	503.78
Total						2271.48
Variants						75.72
Standard Deviation						8.70

From Table 4, it can be seen that the results of the computation of the experimental group after calculated variants obtained 75.72 and a standard deviation of 8.70.

Computing for the Normality Test

Table 5. Frequency Distribution of the Students who was Taught by Card Sort Strategy

No.	Range of Class	F _o	F(Z)	Area of Interval Class	F _e	F _o -F _e	(F _o -F _e) ²	(F _o -F _e) ² /F _e
1.	59.5	0	0.2	0.00	0.00	0.00	0.00	0.00
2.	65.5	4	0.10	0.08	2.35	1.65	2.71	1.15
3.	71.5	5	0.28	0.18	5.50	-0.50	0.25	0.04
4.	77.5	7	0.54	0.26	8.12	-1.12	1.26	0.16
5.	83.5	8	0.79	0.25	7.60	0.40	0.16	0.02
6.	85.5	5	0.93	0.15	4.51	0.49	0.24	0.05
7.	95.5	2	0.98	0.05	1.69	0.31	0.14	0.06
X ² -count								1.483
X ² -table								7.814

Based on the results of the normality test in Table 5 it is known that the X²-count of the posttest data in the experimental class is 1.483: the X²-count is smaller than the X²-table with df (k-3) = 6-3 of 7.814 (X²-count < X²-table). This means that the assumption of normality is fulfilled.

2. Control Group

Table 6. List of Data of the Students who was not Taught by Card Sort Strategy

Interval Class	(Xi)	Fi	Xi.Fi	Bottom Edge	Top Edge
50-55	52,5	6	315	49,5	55,5
56-61	58,5	5	292,5	55,5	61,5
62-67	64,5	7	451,5	61,5	67,5
68-73	70,5	9	634,5	67,5	73,5
74-79	76,5	4	306	73,3	79,5
80-85	82,5	3	247,5	79,5	85,5
	Total	34	2447.00		

N	34
Max. Score	85
Min. Score	50
K	6
P	6

From Table 6, it can be seen that the maximal score of the control group who was not taught the card sort strategy was 85, the minimum score was 50, the length of the interval class was 6, and the class of the interval was 6. Thus, the interval class was calculated to start at 50–55 because the length of the interval class was 6. Based on the results of computation with the used statistical

formula, the following data were obtained: the result of the experimental group: the range score was 55 up to 85; the mean score was 66.09; the median score was 70.5; and the modus score was 70.

Table 7. Computing for Standard Deviation and Variants

Interval Class	X_i	X_i	$(\bar{x})$	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$	$f_i(x_i - \bar{x})^2$
50-55	6	52.5	66.09	-13.59	184.64	1107.84
56-61	5	58.5	66.09	-7.59	57.58	287.91
62-67	7	64.5	66.09	-1.59	2.52	17.66
68-73	9	70.5	66.09	4.41	19.46	175.17
74-79	4	76.5	66.09	10.41	108.40	433.62
80-85	3	82.5	66.09	16.41	269.35	808.04
Total						2830.24
Variants						85.76
Standard Deviation						9.26

From Table 7, it can be seen that the results of the computation of the control group after calculated variants obtained 85.76 and a standard deviation of 9.26.

Computing for the Normality Test

Table 8. Frequency Distribution of the Students who was not Taught by Card Sort Strategy

No.	Range of Class	F_o	$F(Z)$	Area of Interval Class	F_e	$F_o - F_e$	$(F_o - F_e)^2$	$(F_o - F_e)^2 / F_e$
1.	49.5	0	0.00	0.00	0.00	0.00	0.00	49.5
2.	55.5	6	0.09	3.05	2.95	8.68	2.84	55.5
3.	61.5	5	0.18	6.25	-1.25	1.55	0.25	61.5
4.	67.5	7	0.25	8.51	-1.51	2.29	0.27	67.5
5.	73.5	9	0.23	7.74	1.26	1.59	0.20	73.5
6.	79.5	4	0.14	4.69	-0.69	0.48	0.10	79.5
7.	85.5	3	0.06	1.90	1.10	1.22	0.64	85.5
X^2 -count								4.311
X^2 -table								7.814

Based on the results of the normality test in Table 8, it is known that the X^2 -count of the posttest data in the control class is 4.311; the X^2 -count is smaller than the X^2 -table with $df (k-3) = 6-3$ of 7.814 (X^2 -count < X^2 -table). This means that the assumption of normality is fulfilled.

Computing for t-test

Figure 2. Formula of computing t-test

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{(n_1 + n_2) - 2} \times \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$\bar{x}_1 = 76.63, \bar{x}_2 = 66.09, S_1^2 = 75.72, S_2^2 = 85$$

$$\begin{aligned} t &= \frac{76.63 - 66.09}{\sqrt{\frac{(31 - 1)75.71 + (34 - 1)85.76}{(31 + 34) - 2} \times \left(\frac{1}{31} + \frac{1}{34}\right)}} \\ &= \frac{10.54}{\sqrt{\frac{(30)75.71 + (33)85.76}{63} \times (0.062)}} \\ &= \frac{10.54}{\sqrt{\frac{(30)75.71 + (33)85.76}{63} \times (0.062)}} \\ &= \frac{10.54}{\sqrt{\frac{2271.3 + 2830.08}{63} \times (0.062)}} \\ &= \frac{10.54}{\sqrt{\frac{5101.38}{63} \times (0.062)}} \\ &= \frac{10.54}{\sqrt{80.97 \times (0.062)}} \\ &= \frac{10.54}{\sqrt{80.97 \times (0.062)}} \\ &= \frac{10.54}{\sqrt{5.02}} \\ &= \frac{10.54}{2.24} = 4.704 \end{aligned}$$

Based on the calculated statistical formula obtained, $t\text{-test} = 4.704 > t\text{-table} = 1.998$ with a significant level of 5% with the degree of freedom $(n_1 + n_2 - 2) = 31 + 34 - 2 = 63$. Hence, it is concluded that there is a significant effectiveness of the use of the card sort method toward increasing reading comprehension on the students' ability reading comprehension of descriptive text at the seventh graders of MTs NU 01 Batang in the academic year of 2022/2023.

Discussion

Based on the results of computation with a statistical formula, the experimental group obtained the following data: The range score was 60 up to 95; the mean score was 76.63; the median score was 80.5; the modus score was 80; the standard deviation score was 8.70; and the variants score was 75.72. The result of the control group was: the range score was 55 up to 85; the mean score was 66.09; the median

score was 70.5; the modus score was 70; the standard deviation score was 9.26; the variants score was 85.76; then the combination variants were 5.37; and the t-test was 4.704.

Based on Figure 2, the result of the t-test was 4.704. Then, the researcher consulted the t-table for the level of significance of 5% and the degree of freedom of 63 and got the t-table value of 1.998. To calculate the value of the degree of freedom, the researcher used the formula $(df) = (n_1 + n_2) - 2$. Because in this research the samples were 65 students, the result of the computation of the degree of freedom was $(31 + 34) - 2 = 63$.

From Figure 2, it can be seen that the t-test was 4.704 and the t-table was 1.998. It means that the result of the t-test was higher than the t-table, so the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected. It means that there was a significant difference in improving students' reading comprehension between the control and the experimental group after the treatment.

CONCLUSION

After doing research on the seventh grades students of MTs NU 01 Batang in the academic year 2022/2023, it can be drawn the conclusion that prior to receiving treatment, their mastery of reading comprehension of descriptive texts was still poor, after getting treatment in the mastery of reading comprehension of students' descriptive texts after being taught with the card sort strategy, the experimental group got better post-test scores than the control group, which obtained a mean score of 76 (the experimental group) and 66 (the control group), which means that using the card sort strategy can improve students' reading comprehension skills effectively, where there is an increase in the experimental group. In addition, there was a significant difference between the classes that received treatment and those that did not receive treatment, with the value $t\text{-test} = 4.704 > t\text{-table} = 1.998$. It means that there is a significant effectiveness of using the card sort strategy in increasing the reading comprehension ability of descriptive texts.

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