Integrating Mind-Mapping Collaborated with Think-Pair-Share to Teach Reading Comprehension in Descriptive Text

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A B S T R A C T

The study aims at explaining the effectiveness of integrating Mind-Mapping collaborated with Think-Pair-Share to teach reading comprehension in descriptive text. It employed quantitative method using control-group of non-equivalent of quasi experimental research design. The study was conducted at eighth graders of a private junior high school in Batang, Indonesia. The research procedure used pretest, post-test, and documentation. Data analysis technique applied t-test formula SPSS 25 version program. The finding shows that experimental class taught by Mind-Mapping collaborated with Think-Pair-Share has higher achievement in posttest than control class taught by traditional method. The mean post-test of experimental class, 85.00 is higher than that of control class namely 49.50. The conclusion infers that Mind-Mapping collaborated with Think Pair Share is effective to teach reading in descriptive text. It can be recommended to English teachers for using this learning model in EFL classroom in order to create meaningful and joyful learning.

1. Introduction

Secondary school students face many problems to comprehend descriptive texts for acquiring information. To assist the EFL learners unravel their issues, a few procedures are required to be collaborated in case, and it is conceivable. A few of them should utilize active learning models such as Mind-Mapping and Think-Pair-Share (TPS) strategy. They include collaborative learning techniques. The learning models make meaningful classroom interaction between the teacher and students, as correlated to Shih et al. (2015); Al-Zyoud et al. (2017); Samekto (2018); and Alomari (2019). The researchers investigated Mind-Mapping collaborated with TPS to be implemented for teaching reading comprehension in descriptive text.

Firstly, researchers had enthusiasm to progress students' reading skills competence, especially reading descriptive texts. In other words, overcoming students' problems of reading comprehension are never ending process (Grasparil & Hernandez, 2015; Birch & Fulop, 2020). Secondly, they investigated the effectiveness of Mind-Mapping collaborated with TPS strategy to teach students' reading comprehension of descriptive text. In this manner, the treatment finding reflected effectiveness of the learning model. It can be utilized to teach reading in secondary schools. So, learning reading becomes joyful learning. Afterward, aim of the research was to explain the effectiveness of Mind Mapping collaborated with TPS in teaching reading of descriptive text.

In connection to students' reading comprehension problems, some experts such as Barkley, E.F., et. al concern with collaborative learning techniques like getting to be moved forward and created learning models to be way better or interesting methodologies to pick up way better comes about of students' ability to comprehend descriptive text. A way to progress learning achievement is by applying different models of learning within the classroom. As an exertion helps understudies, particularly secondary school students, to comprehend text in second language (L2), collaborated technique can be a worth trying alternative. The collaborated strategy advanced by the researchers is Mind Mapping at the side of Think Pair Share (TPS).

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The Mind Mapping is a type of graphic information organizer. It could be an unmistakable drawing to what happens within the handle of putting away data within the brain. It is a critical and a valuable learning procedure because it makes difference learners to memorize, compose, and organize their idea to write viably and effectively. The Mind Mapping is additionally a compelling instrument in making difference low learners to move forward their level of accomplishment. It moreover makes strides cognitive forms and long-term memory of actualities. In line with (Hariri, 2013; Guerrero & Ramos, 2015; Astriani et al., 2020) in their studies that Mind Mapping moreover makes strides cognitive forms and long-term memory of actualities. Other than, it energizes utilizing more profound levels of genuine forms and superior reorganizing   memory. Moreover, Mind-Mapping is additionally accomplished with bolts that interface a department to another that show association between them.

In the meantime, TPS could be a learning methodology collaboratively where students do to fathom an issue and to reply an address around an assigned reading. This strategy requires students to think exclusively around a subject or reply an address and offers thoughts with classmates. Talking about a reply with an accomplice serves to maximize support, center consideration and engage students on comprehending the reading materials. Students think in pairs to get it the message within the content and after that share it to others.

Hence, the learning process gets to be student-oriented. It too gives them adequate time to express their ideas to their peers in the class. Three functional types of TPS are individual, intra group, and inter-group. It is chance for teacher to pose a question, for students to think and to share in pairs, and for each pair to share back to the whole class. The flexibility of TPS technique as a learning model encourages conversation improvement. This strategy can be adapted to focus on learning progress and the particular students group needs. It is based on the previous research conducted by Kaddoura (2013); Pardeshi (2016); Raba (2017). Hence students' learning achievement can be acquired using TPS learning strategy.

Thus, TPS enhances responses such as inferential, comparative, evaluative, and analytic reasoning and provides significant impact to facilitate students' spoken communicative skills and to enrich students' motivation in learning reading well. It is clear that the application of a Mind-Mapping strategy that is collaborated with TPS can improve cognitive and affective learning outcomes for students. Mind-Mapping is a fun method, works according to the natural way the student's brain works and TPS is a simple method, providing opportunities for students to work independently and collaborate with other students. Based on the advantages of the Mind Mapping collaborated with Think Pair Share, students obtain positive impact and variety aspects in learning reading comprehension.

The language teaching method then will be considered as the information thought and share. Learners will express their eagerness through combining interaction with their pair and companion within the genuine circumstance. On the premise of hypothetical survey, Mind-Mapping strategy offers assistance to students because it enables them to organize the realistic and concepts. Sabah (2015); Mohaidat (2018); Rafii (2017); and Wu et al. (2020) consider that by utilizing Mind-Mapping, individuals can speak to thought into visualization and graphic shapes where one thought is associated to another thought by utilizing the branches. Other than they moreover say that utilizing mind mapping, it is simple for individuals to put data into their memory.

Meanwhile, according to Yusuf et al. (2018) and Hong et al. (2019), TPS consists of three steps as taking after; the primary is to think. The teacher then provokes the students' imagination with a question, prompt, or observation. For some minutes, the students should think about the questions. The second is to pair. It includes the students in accomplice. It can be a work area mate or haphazardly. They compare their mental or type in notes and recognize that they reply they think are best, most persuading, or most special. The last is to Share. After the students talk about their reasons in pair for some minutes, the teacher at this point calls for pairs to share their thought with the students within the lesson. The significance of the collaboration of these techniques is that the learning autonomously and community are productive. It is important in reading comprehension that students can share their systematical thought around the content since reading consists of numerous words. Hence, the researchers allow modern procedure to assist the teacher of English subject to be applied. This explanation over got to be the reason why the researchers conducted this study.

The study aims at explaining the effectiveness of integrating Mind-Mapping collaborated with Think-Pair-Share to teach reading comprehension in descriptive text. It employed quantitative method using control-group of non-equivalent of quasi experimental research design. The study was conducted at eighth graders of a private junior high school in Batang, Indonesia. The research procedure used pretest, post-test, and documentation. Data analysis technique applied t-test formula SPSS 25 version program. The finding shows that experimental class taught by Mind-Mapping collaborated with Think-Pair-Share has higher achievement

in posttest than control class taught by traditional method. The mean post-test of experimental class namely 85.00 was higher than control class namely 49.50. The conclusion infers that Mind-Mapping collaborated with Think Pair Share is effective to teach reading in descriptive text. It can be recommended to English teachers for using this learning model in EFL classroom in order to create meaningful and joyful learning Based on the preceding research before, the researchers reveal the subsequent issues that associated with this research. The first problem is the teacher used teacher-centered learning approach. It means that the teacher turned into greater energetic than the students. The teacher saved explaining the lesson within side the front of the class. In fact, the cutting-edge curriculum desires the teacher to present many opportunity techniques to make the students greater energetic than the teacher. Then, the second one problem is that the students had low motivation to recognize the reading text. It made exceptional or reading English overall performance of the students turned into now no longer satisfactory. The remaining problem is the students' mean score in reading comprehension turned into low.

The researchers are inquisitive about the use of TPS strategy collaborated with Mind-Mapping as an alternative technique to teach reading. It includes types of cooperative learning. The greater students talk the less complicated to students to learn. Based on our study, not many researches in reading skills use the mix of learning models to enhance students' ability of descriptive text reading comprehension. This study accomplishes the previous research such as some research conducted by Astriani, D.et.al (2020); Guerrero, J.M., & Ramos, P (2015); Hariri, M (2013); Jebur, M.S.et.al (2012); Mohaidat, M (2018); Rafii, A (2017); Sabah, S.S (2015); Samekto, D.R (2018); Shih, Y.C., & Reynolds, B.L (2015).

2. Methods

This type of research is quantitative method, because in getting the required data, the researchers employed Quasi Experimental Research Design through Non-equivalent Control-Group. This study applied two classes: control and experimental as samples. They did not use samples randomly. In this study, the independent variable was the strategy that used to show the effectiveness of Mind Mapping collaborated with TPS technique to teach student ability to comprehend descriptive text reading. The independent variable in this study was the students' score on the test of descriptive texts.

In this study, there were two hypotheses as follows. Firstly, hypothesis of working (Ha) is a significant different for students to read and comprehend descriptive text after learning through Mind-Mapping collaborated with TPS. Secondly, hypothesis of null (Ho) in which there is no significant different for students to read and comprehend descriptive text after learning through Mind-Mapping collaborated with TPS. The research subjects are on eighth grades. They were 23 students in experimental group and 23 students in control group.

With regards to a research procedure theorized by Creswell & Timothy (2019), data collection techniques used tests namely try-out test, pretest, post-test and documentation. Utilizing tests, the teacher and researchers found out the level of students' ability to comprehend the learning materials. The tests contained several descriptive paragraphs on tourist attractions. It consisted of 20 question items for both classes. It was taken from students' textbook.

The try-out test was conducted to obtain validity and reliability. The researchers used face validity. Creswell (2014) stated that face validity is "a particular kind of validity that concerns most test designers". Researchers applied the formula of SPSS 25 version program to compute each item consisted of 20 tests. Reliability is the test consistency. To measure the reliability of the test, the researchers used SPSS 25 version program. Pretest was conducted to find out the students' reading comprehension of descriptive text. The result of the pretest became the researchers chose which classes can be experimental and control class. Finally, the researchers found normality and homogeneity of the research sample. Normality Test was the first step of several criteria that must be fulfilled before calculating the independent sample T-test. It aimed to measure whether the data were normally distributed or not from two classes. The researchers only used Shapiro-Wilk for conducting the normality test, because the data were less than 50. The normality significance of the pre-test in the experimental class is 0.117. So, the control class also gained 0.117 in the pre-test. It means that the data in both classes are normally distributed because the significance showed is higher than $\alpha = 0.05$ (0.117 > 0.05). Meanwhile, the post-test result in the experimental class reveals that the normality significance for the experimental class and controlled class is 0.062 and 0.147. The result shows that the data are also normally distributed since both classes have significant more than $\alpha = 0.05$ (0.062 > 0.05; 0.147 > 0.05). The researcher measured the homogeneity test after measuring the normality test. SPSS 25 version program was used as a

method in the homogeneity test. The researcher analyzed the homogeneity test. The researcher analyzed the homogeneity of the pre-test with a significant level of 0.05. The result of the pre-test homogeneity test of the data is summarized below: the significance of the pre-test of homogeneity is 1.000. Therefore, it can be concluded that the distribution data of the pre-test in experimental class and controlled class were homogenous because the significant value is higher than α= 0.05; in other words, 1.000 > 0.05. The post-test score in both classes also present greater than α = 0.05 with the significant value 0.485 (0.485 > 0.05). As a result, the pot-test result can be inferred to be homogenous.

Before doing the post-test, the students gained treatments. The treatments were conducted for 2 meetings and given to the experimental class. It means that the researchers applied Mind-Mapping collaborated with TPS to teach students' ability of comprehending reading descriptive text. Meanwhile, the control class was taught without Mind-Mapping collaborated with TPS namely only used teacher's explanation. Post-test was conducted to evaluate students' mastery of learning materials. It was carried out to measure students' reading ability after getting the treatments. Both of two classes obtained post-test to measure significant different between them. In addition to research procedure, documentation was used to obtain student name list as research participants and taken some photographs. The documentation used in this research such as the students' test sheet, lesson plan, the descriptive text sheet, syllabus, lesson plan, students name list, some photographs.

There were two parts in analyzing the data. They were scoring technique and t-test. Objective tests in multiple choice items were the kind of instrument of pretest and post-test. The researchers analyzed the pretest and post-test results applying SPSS 25 program version. In order to find out the significant difference results of both classes.

3. Results and Discussion

3.1 Result

In experimental class, the researchers gave treatment using mind-mapping collaborated with TPS.

Table 1 First Treatment Procedure for Experimental Class

Main Activity	Teacher's Activity	Student's Activity
Observing	Teacher showed descriptive text example. Teacher insisted students to read descriptive text examples. Teacher divided students into pair work.	Students read descriptive text example. Every pair obtained particular text.
Questioning	Teacher allows students to ask reading materials.	Students asked questions related to reading materials.
Exploring	Teacher clarifies definition and generic structure of descriptive text. Teacher explains Mind-Mapping strategy that will be used to understand descriptive text. Teacher asks students to create Mind-Mapping chart with different color marker. Teacher explained the next strategy namely Think-Pair-Share to make students work together with their partner.	Students listened teacher's explanations.
Associating	Teacher associates students' understanding by asking to find descriptive text example in text book.	Students find descriptive text example in text book.
Communicating	Teacher confirms students to conclude topics and generic structures based on their discussion.	Students respond teacher's feedback.

Table 2: Second Treatment Procedure for Experimental Class

Main Activity	Teacher's Activity	Students 'Activity
Observing	Teacher discusses together with students about exercises from the last meeting.	Students pay attention and give responses.
Questioning	Teacher encourages students to share ideas about text of descriptive.	Students take a chance to share ideas.
Exploring	Teacher insists students to rearrange text of descriptive and answered questions in worksheet.	Students respond teacher's instruction.
Associating	Teacher associates students' mastery of descriptive text by giving exercise.	Students answer the exercise individually.
Communicating	Teacher provides enrichment and feedback.	Students respond teacher's instruction..

In this point, try-out test, pretest, post-test and significant differences of post-test between control and experimental classes were discussed. Try-out test was to measure reliability and validity before pretest and post-test implemented to the control and experimental classes. Students had to do the test in 30 minutes. Questions were 10 multiple choices test items. This part shows the calculation and discussion of validity of try-out test.

3.1.1 Data Analysis of Try-Out Test Instruments.

3.1.1.1 Test of Validity

The researchers calculated the validity of reading skill test of descriptive text using with SPSS 25 version program. To measure the validity of the research instruments used product moment formula. With df was n-r 20-2 = 18 in 5% (0.05) significance the r index was 0.468. When the index of coefficient of correlation (r result) was more than the r index it could be concluded that items were valid instruments. While the item said to be not valid instrument if the coefficient of correlation was below 0.468. The researcher gave 10 multiple choice questions for try-out class and put the sample 20 respondents. So, the researchers calculated the validity test from the result of multiple-choice questions.

Table 3 The Result of Validity Test

Item	"r" calculated	"r" index	Criteria
1.	0.665	0.468	Valid
2.	0.684	0.468	Valid
3.	0.582	0.468	Valid
4.	0.672	0.468	Valid
5.	0.734	0.468	Valid
6.	0.761	0.468	Valid
7.	0.817	0.468	Valid
8.	0.842	0.468	Valid
9.	0.569	0.468	Valid
10.	0.538	0.468	Valid

Based on the table above, all the questions were valid. Then, the researcher used 10 valid questions as instrument for the reading comprehension test.

3.1.1.2 Test of Reliability

Reliability refers to the consistency and stability of the measurement result whenever certain measurements performed on the same thing. A test is seen as being reliable if the instrument is used several times to measure the same object would generate the same data. Items that have been proven valid further tested the reliability using Cronbach's Alpha formula and calculated by using SPSS 25 version program. In the test, the determined of level significance is 5% (0.05). If Cronbach's Alpha < r_{table} at the level significance of 0.05, it means that the instrument is not reliable. While Cronbach's Alpha > r_{table} at the level significance of 0.05, it can be concluded that the instrument is reliable.

Table 4 The Result of Reliability

Reliability Statistics

Cronbach' Alpha	N of Items
,877	10

From the above table, it is known that the instrument reliability test results of Cronbach's Alpha is 0.877, which means 0.877 > 0.468 (r_{table}). It can be concluded that the instrument was reliable.

3.1.2 Data Analysis of Pre-test and Post-test of Experimental and Control Class

The result of the pre-test and post-test of the experimental and control class were assessed using SPSS 25 version program. In the table below are summarized the results of pre-test and post-test in the experimental and control class.

Table 5 Descriptive Statistic

	N	Minimum	Maximum	Mean	Standard Deviation
Pretest experiment	20	50	90	67.00	11.286
Posttest experiment	20	60	100	85.00	11.471
Pretest control	20	30	70	47.00	11.286
Posttest control	20	30	70	49.50	11.459
Valid	20				

The above table 5 describes that the pre-test result of the experimental class before given treatment was 20 students in the first line. The lowest pre-test score of the class was 50, and the highest score was 90. The mean score was 67.00. Furthermore, the standard of deviation was 11.286, while after given treatment, the lowest score in the experimental class increased to 60, and the highest score increased to 100. Then, the mean score is 85.00, and the standard of deviation is 11.471.

Meanwhile, the students in control class also consisted of 20 students. The lowest pre-test score of the class was 30, the highest score was 70, the mean score was 7.00 and the standard deviation was 11.286. Then, the post-test score was gained after last meeting of the class. The lowest score improved to 30, but the highest score was still 70. The mean score was 49.50, and the standard deviation was 11.459. From the table, it can be inferred that there was substantial score after students got treatment in the experimental class by using Mind Mapping collaborated with Think-Paired Share, and the students' scores of the control class improved slightly.

3.1.2.1 Normality Test

This was the first step of several criteria that must be fulfilled before calculating the Independent Sample T-test. It aimed to find out whether the data were normally distributed or not from two classes. Based on the table below, there are Kolmogrov-Smirnov and Shapiro-Wilk. However, the researcher only used Shapiro-Wilk for conducting the normality test, because the data less than 50.

Table 6 The normality test result of pre-test and post-test in experimental class and control class Tests of Normality

	CLASS	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
RESULT OF STUDENTS LEARNING	PRE_EXP	,182	20	,080	,924	20	,117
	POST_EXP	,191	20	,055	,920	20	,100
	PRE_CONT	,182	20	,080	,924	20	,117
	POST_CONT	,183	20	,079	,929	20	,147

a. Lilliefors Significance Correction

The above table 6 described that the normality significance of the pre-test in the experimental class was 0.117. So, the control class also gained 0.117 in the pre-test. It means that the data in both classes were normally distributed because the significance showed was higher than α = 0.05 (0.117 > 0.05). Meanwhile, the post-test result in the experimental class revealed that the normality significance for the experimental class and controlled class was 0.062 and 0.147. The result showed that the data were also normally distributed since both classes have significance more than α = 0.05 (0.062 > 0.05; 0.147 > 0.05).

3.1.2.2 Homogeneity Test

The researcher measured the homogeneity test after measuring the normality test. SPSS 25 version program was used as a method in the homogeneity test. The researcher analyzed the homogeneity of the pre-

test with a significant level of 0.05. The result of the pre-test homogeneity test of the data was summarized below.

Table 7 Pre-Test of Homogeneity of Variance

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
RESULT	Based on Mean	,000	1	38	1,000
	Based on Median	,000	1	38	1,000
	Based on Median and with adjusted df	,000	1	38,000	1,000
	Based on trimmed mean	,000	1	38	1,000

The above table 7 described that the significance of the pre-test of homogeneity w a s 1.000. Therefore, it can be concluded that the distribution data of the pre-test in experimental class and control class were homogenous because the significant value was higher than α= 0.05; in other words, 1.000 > 0.05.

Table 8 Post-Test of Homogeneity of Variance

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
RESULT	Based on Mean	,497	1	38	,485
	Based on Median	,416	1	38	,523
	Based on Median and with adjusted df	,416	1	37,973	,523
	Based on trimmed mean	,504	1	38	,482

The above table 8 described that the post-test score in both classes also presented greater than α = 0.05 with the significant value 0.485 (0.485 > 0.05). As a result, the pot-test result can be inferred to be homogenous.

3.1.2.3 Hypothesis Test

In this section, the hypothesis of the study was tested through t-test. The T-test aims to assess whether any significant differences arise from the students' reading comprehension score on the post-test between the experimental and control class after the treatment. This test was conducted by SPSS 25 version program. In order to measure the data, the formulation used the mean experimental class score and control class. After that, 0.05 is established as the significance value or alpha (α). Furthermore, the result of the t-test with SPSS 25 version program was summarized in the tables below.

Table 9 Result of T-test Calculation

Group Statistics

	CLASS	N	Mean	Std. Deviation	Std. Error Mean
RESULT	POST_EXP	20	82,00	12,397	2,772
	POST_CONT	20	49,50	11,459	2,562

Based on table 9 , it described the post-test result in both assessment, experimental class, and control class. In each class, there were 20 students involved in the test. The table also indicated the mean of each students' average score taken from the post-test score. The mean scores between the two classes were different, where the experimental class means the score was 82.00, while the control class mean score w a s 49.50. Therefore, both classes have a different of 32.5 scores after getting the treatment, which was the experimental class by the higher score.

Table 10 Independent Sample Test

| | | Levene's Test for | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
RESULT Equal variances	497	,485	8,609	38	,000	32,500	3,775		24,858	40,142
Equal variances not assumed			8,609	37,767	,000	32,500	3,775		24,857	40,143

According to table 10, it described that the independent sample t- test of post-test acquired p-value or (2-tailed) = 0.000. It meant the score was lower than the significant value 0.05 that had been calculated. It showed from the result that the null hypothesis was rejected and the alternative hypothesis was accepted because the p-value (0.000) was lower than Sig α = 0.05 (5%). In other words, there was an effect of the Mind Mapping collaborated with Think-Pair-Share technique on students' reading comprehension of descriptive text. Before the pre-test, treatment, and post-test were carried out, the researcher had conducted a test which was covered, validity and reliability. In the validity test, the index of coefficient of correlation (r result) was more than the r index (0.468). It can be concluded then, that items were valid instruments. So, all questions from 10 questions were valid. Then, the instrument reliability test results of Cronbach Alpha 0.725, which means 0.725 > 0.468 (r table). It can be inferred that the instrument was reliable.

In this study, VIII B class became as control group for source of data. There was not a new treatment in teaching learning process. They did not obtain treatments. They were taught reading on descriptive text using textbook and the teacher's explanation. Students did not enjoy in practicing their reading skill because they only listened and wrote what the teacher asked to look up the unfamiliar words in dictionary. The result of this research in the control class, the pre-test score was 47.00, and the post-test mean score was 49.50, so the score gained in the control class was 2.50.

The result of this research presents that utilizing Mind Mapping collaborated with Think-Pair-Share in teaching reading comprehension of descriptive text was effective since the pre-test mean score of the experimental class was 67.00 before applying Mind-Mapping collaborated with Think-Pair-Share, besides the post-test mean score was 85.00, so the experimental class score gained was 18.00. From the result between control class and experimental class, it can be seen that the students' achievement was increased. The normality significance for the experimental class and control class was 0.062 and 0,147. The result showed that the data were also normally distributed since both classes have significance more than α = 0.05 (0.062 > 0.05; 0.147 > 0.05). While the distribution data of the pre-test in experimental class and control class were homogenous because the significant value is higher than α= 0.05; in other words, 1.000 > 0.05. The independent sample t-test of post-test acquired p-value or (2-tailed) = 0.000. It means the score is lower than the significant value 0.05 that has been calculated. It showed from the result that the null hypothesis was rejected and the alternative hypothesis was accepted because the p-value (0.000) is lower than Sig α = 0.05 (5%). Based on the result of test that had been done, there was an effect in reading comprehension achievement between students who were given treatment and students who were not given treatment. It can be explained that integrating Mind-Mapping collaborated with Think-Pair-Share was effective to teach reading comprehension of descriptive text at the eighth graders of private secondary school in Batang, Indonesia in the academic year of 2021/2022.

3.2   Discussion

It deals with the research findings that consists of statistical interpretation and experimental analysis.

3.2.1 Statistical Interpretation

There were two class research designs of quasi experimental. The classes were experimental and control. The researchers gave treatments namely Mind-Mapping collaborated with TPS strategy. The control class implemented without using Mind-Mapping collaborated with Think Pair Share namely only used the teacher's explanation verbally. The treatment was conducted before administering post-test. The learning materials for both classes were identical. Actually, it was not similar on teaching and learning strategy. Students obtained treatment through Mind-Mapping collaborated with TPS technique after getting explanation on text of descriptive in first meeting.

Previously, students watched person description picture. After that they were insisted on thinking what they searched on the picture. It was student brain stimulator to think each vocabulary. Then teacher insisted students to write description list. After that, teacher asked each student to choose one partner. Then, students with their partner discussed the list of description that had been found. After they discussed it, they have to share their idea or their findings in front of the class or another group of students.

This activity could assure their analytical thinking about the description of something. Finally, the students had to respond the multiple-choice questions. The treatment run well. Nevertheless, there was still research barrier in time management. Most students needed sluggish implementation of Mind-Mapping collaborated with TPS because this technique was not so familiar yet. Researchers needed to assure each student knowing all steps. Although it needed much time. Strategy was really necessary for teacher to arrange time management well.

After providing the treatment, researchers calculated test results applying SPSS 25 program version. The findings showed that control class pretest mean was 69.37 and experimental class pretest mean was 69.84. Mean scores of both classes were gradually enriched after students received the treatment. Besides, the experimental class post-test mean score was 80.93, that was higher than control class post-test mean score of only 77.34.
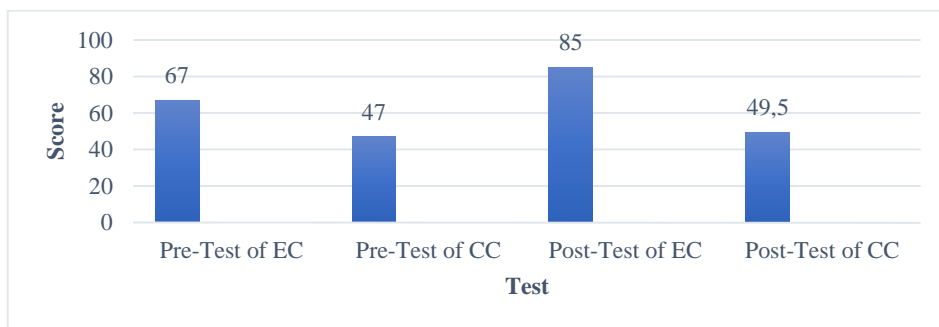

Chart 1. Pretest and Post-Test of the Experimental Class (EC) and Control Class (CC)

The data above indicated that after having treatment, the experimental class achieved a higher result than the control class. The researchers assumed that there was a significant difference on students' reading comprehension achievement between experimental and control classes. In addition, the researchers also assumed Mind-Mapping collaborated with TPS strategy effective in teaching reading of descriptive text.

Then the statistical analysis using t-test was applied to identify whether there was significant difference in students' learning achievement between experimental and control classes. According to pair sample test results, it is indicated that there were significant differences between control and experimental classes in achieving posttest result. Null hypothesis (Ho) was rejected and alternative hypothesis (H1) 55 was accepted because t-value was higher than t-table (t value > t-table). In conclusion, there was a significant difference in students' reading comprehension of descriptive texts after being taught integrating Mind-Mapping collaborated with TPS strategy.

3.2.2 Analysis of Experiment

This part deals with the advantages and the disadvantages of Mind-Mapping collaborated with TPS.

3.2.2.1 The Advantage of Mind Mapping collaborated with TPS Teaching Reading of Descriptive Text

More positive impact on students' reading achievement was the result of integrating Mind-Mapping collaborated with TPS. There are some advantages of implementing learning model for teaching reading. Firstly, it is to think. Students are able to create Mind Mapping to have comprehending well of texts. It is benefit preliminary step before reading a text. Secondly, it is to pair. TPS strategy helps students to decrease students'

reading anxiety. By utilizing this strategy, students' shyness or quiet are prevailed to share ideas in pairs more intimately before joining the bigger group. By sharing with one student first, ashamed students have a change to see that his/her ideas are not bad and may have less anxiety about delivering them to the group. Thirdly is to share. Using the TPS strategy students may learn new ways of thinking about problems and solution by collaborative sharing in two stages.

In line with Jebur et al. (2012); Ahmed (2016); and Parker (2021), it also has to express ideas to a partner and elaborate on details may lead them to even better problem solving. It can be inferred, Mind-Mapping collaborated with TPS is so effective to teach students' reading descriptive text for the eighth grade students. The findings indicated that there was real significant difference between students who taught implementing Mind-Mapping collaborated with TPS and those who taught with usual learning technique. Experimental class students had higher score than control class students.

3.2.2.2 *The Disadvantage of Mind-Mapping Collaborated with TPS*

Mind-Mapping collaborated with TPS strategies can be applied to teach reading comprehension of descriptive text. It is useful for students to reach their own perspective or paradigm before reading a text. It is supported by Hamdan (2017); Ajayi & Oladeji (2020); Okolocha & Nwaukwa (2020); and Zaini (2020). Besides, this learning strategy still has an obstacle. Based on the researcher's point of view, not all kind of texts can be implemented utilizing Mind-Mapping collaborated with TPS. To comprehend a text, knowledge text background is needed to make student easier to comprehend. To identify something, it is necessary to know the things to identify or to describe then. To make easily describe a topic, it needs background knowledge for students. If it is not, it can be learning barrier for students to engage the next class activity. This strategy should be implemented by providing familiar topic that would be useful and give benefits for students.

4. Conclusion

In this point, the researchers state conclusions after obtaining the data finding. It can be inferred that integrating Mind-Mapping collaborated with TPS is effective for teaching students' ability of reading comprehension in descriptive text. The learning strategy can stimulate students to think independently before reading a text. It can be proved that before gaining treatments, control and experimental classes relatively had equal score level. The test of hypothesis presented that sig. 2 tailed (p) was 0.000 while alpha (α) was 0.05, it means that $0.000 < 0.05$. It can be stated that Ho (Null Hypothesis) was rejected and Ha (Alternative Hypothesis) was accepted.

The experimental class achieved 85.00 as the mean score. Meanwhile the result of control class posttest obtained 49.50 as the mean score. The study recommends that utilizing Mind-Mapping collaborated with TPS strategy also enhancing students to have higher achievement of descriptive reading test. This recommendation is addressed to English teachers, and for further researchers who are interested in investigating the similar issue. There was a significant difference between control and experimental class. Students who were taught using Mind-Mapping collaborated with TPS had higher score than students who were taught with usual learning

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