

COMPARATIVE STUDY OF JIGSAW TECHNIQUE AND THINK-PAIR-SHARE TECHNIQUE IN READING NARRATIVE TEXT AT THE TENTH GRADE STUDENTS OF SMA YP UNILA BANDAR LAMPUNG

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Abstrak. Tujuan penelitian ini adalah untuk mengetahui apakah ada perbedaan signifikan pada kemampuan membaca siswa setelah penerapan Jigsaw dan TPS, menemukan aspek membaca yang meningkat signifikan, dan menemukan masalah siswa dalam memahami aspek membaca melalui Jigsaw dan TPS. Penelitian ini dilakukan melalui desain kuantitatif dan kualitatif. Populasi penelitian ini adalah siswa kelas sepuluh SMA YP Unila Bandar Lampung. Hasil penelitian ini menunjukkan ada perbedaan signifikan pada kemampuan membaca siswa setelah penerapan Jigsaw dan TPS dilihat dari hasil t-value lebih besar dari t-table ($1.839 > 1.677$). Penelitian ini juga menunjukkan aspek yang meningkat signifikan adalah ide pokok dan informasi khusus. Selain itu, terdapat beberapa masalah yang dihadapi siswa dalam memahami aspek membaca dipengaruhi oleh prosedur Jigsaw dan TPS.

Abstract. The objectives of this research were to find out whether there was a significant difference of the students' reading achievement after implementing Jigsaw and TPS, what aspects of reading that improved significantly, and the students' problems in comprehending the aspects of reading through Jigsaw and TPS. The population of this research was the tenth grade students of SMA YP Unila Bandar Lampung. This research was done through a quantitative and qualitative design. The results indicated that there was a significant difference of the student's reading achievement after implementing Jigsaw and TPS since t-value was higher than t-table ($1.839 > 1.677$). It also showed that the aspects of reading that improved significantly were main idea and specific information. Furthermore, there were some problems faced by students in comprehending aspects of reading affected by procedures of Jigsaw and TPS.

Keywords: *Reading Comprehension, Aspects of Reading, Jigsaw, TPS*

INTRODUCTION

In the 2013 curriculum for the senior high school, reading is one of the four-language skills that students need to master and one of the indicators of academic success since it is an active and receptive skill. Grabe as cited in Alyousef (2005) states that “reading can be seen as an active process of comprehending where students need to be taught strategies to read more efficiently, for example, guess from context, define expectations, make inferences about the text, skim ahead to fill in the context, and others”.

Based on the researcher’s pre-observation in SMA YP Unila Bandar Lampung, according to the English teacher in that school, there are some problems in teaching English. First, most students feel difficult when they read a text, it happens because of their lack of vocabulary. Second, in reading a text, students also get difficulties in getting information from the text, finding the main idea, finding the specific information, identifying the reference of the word, making an inference of the text and comprehending the vocabulary. Then, according to some students at the tenth grade, some English teachers still tends to use teacher-centered technique (monotonous technique) and small group discussion without separate the text into some parts.

Narrative text is one of the texts in the 2013 curriculum that students have to master. According to Bushel (2011:10) “a narrative paragraph describes an event, feeling or experience in story form or in the order the details of the event happened. Its aim is to entertain or amuse the readers”. It consists of orientation, complication and resolution. Then, folktale is used in this research.

In this research, Jigsaw and Think-Pair-Share techniques will be implemented in teaching reading narrative text at the tenth grade students of SMA YP Unila Bandar Lampung. Brisk and Harrington (2000: 83) define that the jigsaw approach is a way for students to work cooperatively and help each other to learn new material. Students take an active role their learning as they teach other students what they have learned. According to Aronson (2008) jigsaw technique is initially introduced by Elliot Aronson in 1971 in Texas and it is expected to help the students in improving their reading achievement through ten steps ; (1) Divide students into 5 or 6 person jigsaw groups. (2) Appoint one student from each group as the leader. (3) Divide the day’s lesson into 5-6 segments. (4) Assign each student to learn one segment. (5) Give students time to read over their segment at least twice and become familiar with it. (6) Form temporary “expert groups” by having one student from each jigsaw group join other students to the assigned same segment. (7) Bring the students back into jigsaw groups. (8) Ask each student to present her or his segment to the group. (9) Float from group to group, observing the process. (10) At the end of the session, give a quiz on the material.

Another technique is think-pair-share technique. Lyman (1981) states that, this technique was developed by Prof. Frank Lyman in 1981 in Maryland and the activity in this technique involves three basic steps, which is, thinking, pairing,

and sharing. According to Millis (2010) “Think-pair-share is a powerful cooperative learning structure because it employs the principle simultaneous interaction”.

There are some reasons of comparing Jigsaw technique and Think-Pair-Share techniques. First, both of them are good and believed can make the students more active in the class. Then, it will be easy for students to work together with their friends in comprehending a text, it can be work in pairs or in groups. Next, both of these techniques improve the students’ social interaction with others by sharing the idea. At last, in these techniques, every student gets a chance to comprehend and elaborate the idea of the text because before sharing the idea to others, every student should comprehend their own part of text which is different from others. Therefore, the researcher wants to find out which technique that is better in reading narrative text, either work in groups or work in pairs.

METHODS

This research was intended to find out whether or not there was a significant difference of the students’ reading achievement after being taught through Jigsaw and Think-Pair-Share techniques. Two group pre-test post-test design was used in this quantitative research. The formula of the design is proposed by Setiyadi (2006 : 135). The sample of this research was X MIPA II which consisted of 25 students and X MIPA IV which consisted of 26 students as the experimental classes. Reading pre-test and post-test, questionnaire and interview were the instruments of this research. The variables of this research were students’ reading achievement as the dependent variable (Y) and Jigsaw technique and Think-Pair-Share technique as the independent variable (X).

RESULTS AND DISCUSSION

Result

Reading pre-test and post-test were administered to find out the significant difference of students’ reading achievement after being taught through Jigsaw and Think-Pair-Share techniques, and what aspect of reading that improves significantly after being taught using jigsaw and think-pair-share techniques. After that, questionnaire and interview were conducted to investigate the students’ problems in comprehending five aspects of reading through jigsaw and think-pair-share techniques.

To find out the significant difference of students’ reading achievement, the researcher used Independent Sample T-Test. The result of computation is as follows :

Table 1. The Analysis of Significant Difference of Students' Reading Achievement

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Gain Equal variances assumed	17.868	.000	1.839	49	.072	3.75954	2.04378	-.34760	7.86667
Equal variances not assumed			1.813	31.431	.079	3.75954	2.07335	-.46674	7.98582

T-Table = 1.677 (df 49)

Table 1 shows that H_1 is accepted since the significance level was higher than 0.05 and t-value > t-table. Based on the table above, the significance was higher than 0.05 (0.72 > 0.05) and the t-value was higher than the t-table (1.839 > 1.677).

Then, the improvement of students' reading achievement in Jigsaw class was 15.05. Meanwhile, the improvement of the student's reading achievement in Think-Pair-Share (TPS) class was 18.81. It can be concluded that Think-Pair-Share (TPS) technique was more effective than Jigsaw technique in improving student's reading achievement. So, based on the adopted criteria, there was a significant difference on the students' reading achievement after being taught through Jigsaw and Think-Pair-Share techniques.

In analyzing the data to find out the aspect of reading comprehension which improve significantly, the researcher used SPSS 16.0 for Windows (One Way Anova).

Table 2. The Increase from the Pre-test to the Post-test for Each Aspect of Reading Comprehension in Jigsaw Class

No.	Aspect of Reading Comprehension	Total Correct Answer of Pre-Test	Total correct Answer of Post-Test	Gain	Significant Level
1	Main Idea	94	132	38	0.049
2	Specific Information	82	111	29	0.333
3	Inference	73	94	21	0.248
4	Reference	71	84	13	0.056
5	Vocabulary	62	74	12	0.105

Table 2 shows the increase of each aspect of reading comprehension that was achieved by X MIPA II students. Based on the table, main idea was the aspect of reading that improved significantly, because the significance of main idea was 0.049, which meant it was lower than 0.05 ($0.049 < 0.05$). So, there was a significant difference of the score of pre-test and post-test in determining main idea.

Table 3. The Increase from the Pre-test to the Post-test for Each Aspect of Reading Comprehension in Think-Pair-Share (TPS) Class

No.	Aspect of Reading Comprehension	Total Correct Answer of Pre-Test	Total correct Answer of Post-Test	Gain	Significant Level
1	Main Idea	100	144	44	0.013
2	Specific Information	92	133	41	0.000
3	Inference	80	115	35	0.081
4	Reference	76	90	14	0.154
5	Vocabulary	71	84	13	0.088

Table 3 shows the increase of each aspect of reading comprehension that was achieved by XMIPA IV students. Based on the data in table 3, the significance of main idea was 0.013, which meant it was lower than 0.05 ($0.013 < 0.05$). Then, the significance of finding specific information was 0.000, which meant it was lower than 0.05 ($0.000 < 0.05$). From the explanation above, it could be concluded that main idea and specific information were the aspects of reading that improved significantly after implementing Think-Pair-Share (TPS) technique.

In brief, H_0 was rejected and H_1 was accepted. It meant that there are aspects of reading which improved significantly after the students were taught through Jigsaw technique and Think-Pair-Share (TPS) techniques.

In qualitative research, the researcher administered questionnaire to all students and interview three students in Jigsaw class and Think-Pair-Share (TPS) class as the method of triangulation. The researcher used open-ended questionnaire in this research. The aim of qualitative research was to find out the students' problems in comprehending five aspects of reading comprehension through Jigsaw technique and Think-Pair-Share (TPS) technique.

Table 4. Result of Questionnaire in Jigsaw Class

No.	Aspects of Reading	Students who get difficulties	Students who do not get difficulties
1	Main Idea	5	20
2	Specific Information	9	16
3	Inference	11	14
4	Reference	15	10
5	Vocabulary	18	7

From the table above, the result of questionnaire in jigsaw class are :

1. The first question asked the students' problems in determining main idea in a text by using Jigsaw technique. Some students felt difficult in determining main idea because they did not know the story of the text and it was hard for them to summarize all information into main idea of the text.
2. The second question asked the students' problems in finding specific information in a text through Jigsaw technique. Some students got difficulties in finding specific information because of the complicated steps in Jigsaw technique, it was hard for the students to gather or get full specific information of the text from some different sources.
3. The third question asked the students' problems in finding inference in a text through Jigsaw technique. Most of students felt difficult in concluding the story of the text by using their own words and it was also hard for them to determine the moral value of the story.
4. The fourth question asked the students' problems in finding reference in a text through Jigsaw technique. Students felt difficult in finding reference because the text in Jigsaw class was divided into 5 parts, so that the students did not read the full text, each member only read a small part of text. So, it was hard for them to find the reference of a word because they did not know the characters completely while they were reading the part of text.
5. The fifth question asked the students' problems in understanding vocabulary in a text through Jigsaw technique. Almost all students felt difficult in understanding the vocabulary in the text because they were very lack of vocabulary.

Table 5. Result of Questionnaire in Think-Pair-Share (TPS) Class

No.	Aspects of Reading	Students who get difficulties	Students who do not get difficulties
1	Main Idea	3	23
2	Specific Information	5	21
3	Inference	9	17
4	Reference	13	13
5	Vocabulary	16	10

From the table above, the result of questionnaire in jigsaw class are :

1. The first questions asked the students' problems in determining main idea in a text by using Think-Pair-Share (TPS) technique. A few students felt hard in determining the main idea because they were confused to decide the correct main idea of the text.
2. The second question asked the students' problems in finding specific information in a text through Think-Pair-Share (TPS) technique. In finding specific information, some students felt difficult because there were a lot of specific information that they had to understand because in Think-Pair-Share technique the text was just divided into two parts.
3. The third question asked the students' problems in finding inference in a text through Think-Pair-Share (TPS) technique. Some students felt hard in

finding inference because it was hard for them to conclude or make a moral value of the text.

4. The fourth question asked the students' problems in finding reference in a text through Think-Pair-Share (TPS) technique. In finding reference, most of students felt confused in choosing the proper noun or subject that was asked as the reference of the word.
5. The fifth question asked the students' problems in understanding vocabulary in a text through Think-Pair-Share (TPS) technique. Many students felt hard to understand the vocabulary because they did not know the meaning of some vocabularies in a text.

In brief, in Jigsaw and Think-Pair-Share classes, the students got more difficulties in understanding vocabulary and finding inference, then the students did not really got the difficulties in determining main idea and specific information.

Interview was conducted after the students filled up the questionnaire, the content of the interview was same as the questionnaire. The researcher interviewed 3 students in Jigsaw class and Think-Pair-Share class to check the reliability of the data in the questionnaire. Here is the result of the interview in Jigsaw class :

1. Students got difficulty in determining main idea because she felt confused in concluding the main idea from the information which was not complete from other members.
2. In finding specific information, students felt difficult because not all members could comprehend the text well as it was separated into 5 parts, so that they could not share and gather the information well.
3. Students got difficulty in finding inference because they were confused in arranging the words as they were lack of background knowledge.
4. Students got difficulty in finding reference because it was hard for them to identify the reference of the word from some separated parts of text.
5. Students got difficulty in understanding vocabulary because they were very lack of vocabulary and when they asked other members about the meaning of the words they also did not know that.

Students in Think-Pair-Share class also had difficulties in comprehending aspects of reading, here is the result :

1. Students felt hard in determining main idea because they were confused in choosing the proper main idea.
2. Students felt difficult in finding specific information because they had to comprehend a lot of information from the text because it was just separated into two parts.
3. In finding inference, students felt difficult in concluding the story and finding the moral value of the text.
4. Students felt difficult in finding reference because at the first time they were confused what reference is and it was hard to find the proper word or subject which was asked in the items from separated sources.
5. Students got difficult in understanding vocabulary because there were some unfamiliar words for them.

Based on the result of interview, it could be concluded that the data in questionnaire were reliable because the students' answers in the questionnaire were same as their answers in the interview.

Discussion

Significant Difference of Student's Reading Achievement after being Taught through Jigsaw and Think-Pair-Share (TPS) Techniques

In this research, the researcher used two techniques for teaching reading, the techniques were Jigsaw and Think-Pair-Share (TPS). The result shows that there was a significant difference of students' reading achievement after the treatments ($1.839 > 1.677$), it indicated that the hypothesis proposed by the researcher was accepted. In other words, Jigsaw and Think-Pair-Share (TPS) can improve students' reading achievement. Jigsaw and Think-Pair-Share techniques are included in cooperative learning. Research shows that the benefit of cooperative learning includes increased academic achievement, better communication skills, and successful social and academic group interactions. Cooperative learning allows students to both give and receive elaborate explanations. They then learn more than students who simply get the correct answers (Stevens, Slavin, and Farnish 1991).

Then, based on the result of the pre-test and the post-test score, then the gain of students' score in Jigsaw class is 15.05 and the gain in Think-Pair-Share (TPS) class is 18.81, so that the gain in Think-Pair-Share (TPS) class is higher than the gain in Jigsaw class. It could be stated that Think-Pair-Share (TPS) technique is more effective than Jigsaw technique towards students' reading achievement. It could be happened because the students in Jigsaw class got some difficulties in getting and gathering the idea of the text because not all members could understand the part of text because it was just a small part of text so that, not all members could share the idea of the part of text well. Hislop (2003) points out that the success of any knowledge management initiative is highly dependent on the workers' willingness to share their individual information and knowledge. Based on the explanation above, it can be concluded that Think-Pair-Share (TPS) technique is more effective than Jigsaw technique in teaching reading, especially in narrative text.

The Aspects of Reading which Improved Significant after Implementing Jigsaw and Think-Pair-Share (TPS) Techniques

Based on the result of the pre-test and the post-test in each aspect of reading comprehension, the aspect of reading that improved significantly after implementing Jigsaw technique was main idea and the aspects of reading that improved significant after implementing Think-Pair-Share technique were main idea and specific information. This finding confirms the second objective of this study that main idea and specific information are the aspects of reading that improved significantly after implementing Jigsaw and Think-Pair-Share techniques.

Brown (2001) defines that jigsaw strategy is a special form of information gap in which each member of a group is given some specific information and the goal is to pool all information to achieve some objective. It is one of the reasons why main idea improved significant in Jigsaw class. After that, in Think-Pair-Share it was easier for the students in sharing the information and determining the main idea of the text by working in pairs. It is supported by Raba (2017) who states that Think-pair-strategy reinforces students' communication skills. Each student takes his chance to speak, discuss and participate which has many positive effects on the whole group where students feel more self-confident and more active in the class. Moreover, they learn to listen to each other point of view and to respect each other ideas and thoughts.

Students' Problems in Comprehending Aspects of Reading through Jigsaw and Think-Pair-Share (TPS) Techniques

In Jigsaw class, the students had many problems in comprehending aspects of reading. First, in determining main idea, some students felt difficult because they did not know the story of the text and it was hard for them to summarize the information which was not complete that they got from other members into the main idea of the text. Second, in finding specific information the students felt hard in collecting and sharing all information from other members because not all members found the specific information completely in their own part of text since it was separated into 5 parts. Third, in finding inference, most of students felt hard in concluding the story and determining the moral value of the story because they were lack of background knowledge. Next, Most of students felt difficult in finding reference because the text was divided into 5 parts and they did not read the text completely, so that they did not know all characteristics in the story and identify the reference of the word. At last, Almost all students felt difficult in understanding vocabulary because they were lack of vocabulary and when they asked other members about the meaning of the words they also did not know that. The problems could be happened because of the procedure of the technique. Jigsaw is a teaching technique that creates a cooperative learning among students and make them work to analyze certain unit of the text in the group called "expert group" which at the end all of the students on "expert group" are responsible to the wider group called "home group". Ali as cited by Bastian (2018).

Besides that, in Think-Pair-Share (TPS) class students also faced some problems in comprehending five aspects of reading. First, in determining main idea the students felt confused in deciding and choosing the correct main idea of the text. Second, in finding specific, some students felt difficult because the text in TPS class was divided into two parts, so each student in a pair should comprehend a half part of a text, so that there were a lot of specific information that they should find and understand by themselves. After that, some students felt hard in finding inference because it was hard for them to conclude the story or make a moral value of the text by their own words. Then, in finding reference, most of students felt confused in choosing the proper noun or subject that was asked as the reference of the word because the text was separated into 2 parts. At last, almost all students felt hard in understanding vocabulary because they did not know the meaning of some vocabularies in a text because it was unfamiliar for them. The

problems could be happened because of the procedure of the technique. In Think-Pair-Share class students just have to work and discuss the idea in pairs. Mandal (2009) states that think-pair-share is a simple and quick technique.

The finding above confirms the forth objective of this study that there are some problems in comprehending five aspects of reading comprehension through Jigsaw and Think-Pair-Share (TPS) techniques.

CONCLUSION AND SUGGESTION

After the research was conducted at the tenth grade students of SMA YP Unila Bandar Lampung, and the data were analyzed, it can be concluded that :

1. There is a significant difference of students' reading achievement after being taught through Jigsaw technique and Think-Pair-Share (TPS) Technique. Then, Think-Pair-Share is more effective than Jigsaw because the gain in Think-Pair-Share (TPS) class is higher than Jigsaw class.
2. In Jigsaw class main idea was the aspect of reading which improved significantly meanwhile in Think-Pair-Share class, main idea and specific information were the aspects of reading which improved significant.
3. The problems that the students faced were affected by the procedure of the technique itself. Some students got more difficulties in understanding vocabulary because they were very lack of vocabulary to comprehend the text whether they worked in groups or in pairs and they also got more difficulties in finding reference because it was hard for them to identify the word from some separated part of text.

Based on the discussion and conclusion above, the researcher recommends some suggestion for the teachers and other researchers. For teachers, they should try and use other types of cooperative learning in teaching reading, and should provide certain media or activities to enrich students' vocabulary. And for other researchers, they should try to implement those techniques to students from different departments or level, should create condusive situation so that the students can absorb the materials effectively, should make sure that all students understand the procedures well, should be careful in managing time so students could finish the assignment well, and hopefully further researchers can use another media or technique that can improve the students' ability in understanding vocabulary.

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