THE USE OF MIND-MAPPING TECHNIQUE TO IMPROVE STUDENT SPEAKING ABILITY IN RETELLING NARRATIVE STORY

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ABSTRACT

he purpose of this study is to find out the effect of mind mapping technique to improve student's speaking ability in retelling narrative story at third semester students at English Education Department University of Mataram This study used experimental research with one group pre –test post–test design. The mean score is calculated by dividing the sum of frequency with the total number of students. The results is 71 as the mean score of pre-test. The mean score of the post-test is 73. This indicates that there is an improvement in the student's achievement of 2 points. After obtaining the data by using the t-test formula, it is used to test the hypotheses. The t-test result shows the observed t was 10.24, higher than the t-table 1.699. This means there is a significant effect of mind mapping to improve students speaking skill on retelling narrative story.

Keywords: Mind mapping technique, speaking, narrative story

ABSTRAK

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh teknik pemetaan pikiran untuk meningkatkan kemampuan berbicara siswa dalam menceritakan kembali cerita narasi pada mahasiswa semester tiga di Jurusan Pendidikan Bahasa Inggris Universitas Mataram. Penelitian ini menggunakan penelitian eksperimen dengan desain one group pre –test post-test design. Nilai rata-rata dihitung dengan membagi jumlah frekuensi dengan jumlah siswa. Hasilnya adalah 71 sebagai nilai rata-rata pre-test. Nilai rata-rata post-test adalah 73. Hal ini menunjukkan adanya peningkatan perolehan poin siswa sebesar 2 poin. Setelah diperoleh data dengan menggunakan rumus uji-t digunakan untuk menguji hipotesis. Hasil uji t menunjukkan t teramati sebesar 10,24, lebih tinggi dibandingkan t tabel sebesar 1,699. Artinya terdapat pengaruh yang signifikan dari pemetaan pikiran untuk meningkatkan keterampilan berbicara siswa dalam menceritakan kembali cerita narasi

Kata kunci : mind map, teknik, berbicara,cerita naratif

A. Introduction

Language is a means of communication. Language helps humans to express themselves and interact with one another. People utilize language to express their ideas, opinions, and their thoughts. Language is useful in human life

because it can be used to express feelings as well as to keep relationships. People cannot communicate with one another or go about their daily lives unless they employ language. For a long time, English has been regarded as an international language. English, as an international language, has been utilized as a medium of communication both orally and in writing. People must learn English either informally or formally in order to communicate in it. Speaking is one of the four language skills that should be promoted in English learning. According to Brown (2004), the term speaking is an interactive process of constructing meaning that involves receiving, processing, and producing information.

Soomro (2018) states speaking is the most difficult as well as complex skill to learn because it requires appropriate grammar and vocabulary use as well as cultural aspect. Harmer (2007) stated that speaking is a process to convey and share ideas and feelings orally. Speaking involves some elements such as accuracy, appropriateness, fluency, and vocabulary building. Furthermore, according to Richards et al. (2002), speaking is the ability to use language appropriately to make effective oral communication in social interaction. As stated by Richards, interaction diversity involves not only verbal communication but also nonverbal communication such as gestures, body language, facial expression, and so on.

It is the ability to produce written and spoken sentences quickly and effectively. People need to interact with each other to reach their aim of speaking. As a consequence of this, people used language as a tool to express themselves. After seeing it, one of the most crucial abilities to

develop is speaking. Through the process of sharing and exchanging information, someone may convey a message about an issue in question to other people. Speaking would be a success if a person can convey their thoughts appropriately. Certain elements of the speaking process were pronunciation, intonation, fluency, and correctness. When students try to communicate with others, they run into various challenges. Most children find it hard to talk about themselves. Even though they have something in mind, they are not confident when they express their opinion as they were afraid of making mistakes, and they do not have enough vocabulary to arrange sentences to have good speaking. The other difficulties come from a lack of grammar understanding.

These issues can be related to communication gaps between Indonesian and English, as well as the lack of motivation in English subjects. Most of the pupils were not interested in speaking English, prefer to communicate with other students in their native language instead of the target language. Based on the problem stated above, the teacher ought to create good techniques to make the students attractive and creative in the classroom to enhance their speaking skills. The Mind Mapping technique is one of them. According to Buzan (2005), mind mapping is a very powerful tool for brainstorming, creative thinking, problem-solving, organizing ideas, and, of course, note-taking. Mind Mapping is an important technique that can help students focus or concentrate on a topic. Because it contains the keyword or outlines about the topic that will be conveyed to the others, mind mapping can help students increase their understanding

of the topic or material and offer new insight for the students.

Based on the problem mentioned above, the teacher needs to create good techniques to make the students attractive and creative in the classroom to improve their speaking skills. Mind mapping is one of many strategies utilized for English teaching and learning. This teaching strategy is applied by many teachers to teach writing, reading, and speaking. Buzan (2005:1) Mind mapping is a graphical way of taking written notes that gives an overview of a topic and its complex information, allowing students to comprehend, create new ideas, and build connections. Mind mapping encourages students to begin with a central idea and expand outward to more in-depth sub-topics with colors, images, and words. To deal with this, the teacher should find a solution to the problems that were raised. Otherwise, they need to modify their

teaching style and find a way to guarantee that the students know what they will be conveying and can convey their ideas fluently. The process should be focused on motivating students to be active and creative in their speaking. The same techniques can be used by the teacher to enhance a student's speaking skills.

The aim of using the mind mapping technique in instructions for speaking is to develop the appropriate concept. Before speaking, students must prepare for the topic. Using the mind mapping technique, students are able to easily formulate an idea and apply it when they have the time to speak. There are some previous relevant studies reviewed in order to establish and support this research. Some of them to mention are by Patria (2016), Mirza (2017), and Fitriana (2018). All three previous indicate that there are some significant differences between the score pre-test and post-

test before and after implementation using mind mapping technique to improve students speaking ability. Students easier to organize their ideas, they would get new vocabulary and perceive that they speak more fluently.

B. Research Methods

This study used experimental research with one group pre–test post-test design. This research aimed to find out the effectiveness of mind mapping technique in teaching speaking to students of higher education. The research was conducted to the third semester students at English Education in one of the state universities in Mataram. To know the significant difference between using mind mapping in teaching speaking on retelling narrative story, the researchers compared the results of the pre-test and the result of the post-test. The research compared and analyzed the result of pre-test before the implementation of mind mapping technique and the result of the post-test after the application of mind mapping. This comparison and analysis show how significant the effect of mind mapping to the students' speaking ability is. The design of this research is described as:

Group	X_1	T	X_2

X1: Pre-test

T: Treatment

X2: Post – test

A pre-test was given at the beginning of the meetings before the treatment was conducted. Before the post-test was carried out, students must do treatment. This research was conducted for 3 meetings for treatment. After the treatment was carried out, the researchers gave a post-test to the students. The topic of this test was different from the one used for the pre-test. Then, the results of the pre-and the post-test were analyzed to see the significant differences of the test results.

In analyzing the data that were collected from the test, the researcher used statistical formula to get mean score, standard deviation, and t- score.

Identifying the standard deviation:

1. $SD = \dfrac{\sqrt{\varepsilon D^2 - \left(\frac{1}{n}\right)(\varepsilon D^2)}}{N-1}$

   Where:

   SD = Standard Deviation score.

   ∑ = Total test score

   N = Refers to total sample

2. Correct SD

   $SD = x = \dfrac{SD}{\sqrt{N}}$

   Where:

   SD = Standard Deviation score

   N = Refers to total sample

3. T – test

   $t - obs = \dfrac{X1 - X2}{SD}$

however, to get this data for this formula, firstly we have to count the formula as:

$$= \sum \frac{X1}{N} \qquad \sum \frac{X2}{N}$$

Where:

X1 = Total sigma score

X2 = Total sigma score

SD = Standard Deviation score

1. If t-test ≥ t-table at the significance level of 0.05 and .01, the null hypothesis (H0) "there is no significant effect of using mind mapping technique improve students speaking will be rejected.

2. If t-test ≤ t-table at the significance level of 0.05 and .01, the null hypothesis (H0) "there is no significant effect of using mind mapping to improve students speaking will be accepted.

D. Findings and Discussion

The research provides the result of pre-test and post-test to answer the first research question, mean scores specifically elaborated the data whether to see the differences results before and after treatment. The pre-test, post-test data is presented in tables as follows:

Table 4.1 The students Pre–test score

NO	NAME	PRE - TEST		NO	NAME	PRE - TEST
1	IR	67		16	LI	71
2	IA	72		17	LM	72

NO	NAME	PRE - TEST		NO	NAME	PRE - TEST
3	JR	70		18	LR	71
4	LA	72		19	LRY	71
5	LAH	68		20	RUS	72
6	LLA	69		21	SP	71
7	IC	70		22	IM	71
8	IS	72		23	JUL	71
9	JA	71		24	KR	71
10	JP	72		25	KS	71
11	JR	73		26	RM	72
12	KR	73		27	LZ	71
13	KM	71		28	LF	71
14	KW	74		29	LA	71
15	KZ	75		30	MN	71
					Σ	2137
					Mean	**71**
					SD	**1.07**

Table 4.1 shows that the lowest score students in the pre-test is 67, therefore the lower score is started from 67 then from the table above, the mean score of the pre-test calculate as follows:

$$X = \frac{\Sigma}{N}$$

$$X = \frac{2137}{30}$$

$$X = 71$$

The mean score is calculated by dividing the sum of the frequency with the total number of students. The result is 71 as the mean score of the pre-test. This result shows that the student's mean score is still low.

Table 4.2 Table of students post–test score.

NO	NAME	POST - TEST		NO	NAME	POST - TEST
1	IR	68		16	LI	73

NO	NAME	POST - TEST
2	IA	73
3	JR	73
4	LA	73
5	LAH	70
6	LLA	72
7	IC	73
8	IS	75
9	JA	75
10	JP	73
11	JR	76
12	KR	77
13	KM	73
14	KW	74
15	KZ	77

NO	NAME	POST - TEST
17	LM	73
18	LR	73
19	LRY	74
20	RUS	73
21	SP	75
22	IM	73
23	JUL	73
24	KR	73
25	KS	73
26	RM	75
27	LZ	73
28	LF	71
29	LA	74
30	MN	73
	∑	**2201**
	Mean	**73**
	SD	**1.07**

Table 4.2 indicates that the lowest score obtained by students in the post-test is 68 and the highest score is 76. The mean score of the post-test is calculated as follows:

$$X = \frac{\sum}{N}$$

$$X = \frac{2201}{30}$$

$$X = 73$$

Based on the calculation above, the mean score of post-tests is 73. This indicates that there is an improvement in the student's achievement of 2 points.

Table 4.3 The result of the students' pre-test and post-test

NO	NAME	PRE - TEST	POST TEST	D	D*D
1	IR	67	68	1	1
2	IA	72	73	1	1
3	JR	70	73	3	9
4	LA	72	73	1	1
5	LAH	68	70	2	4
6	LLA	69	72	3	9
7	IC	70	73	3	9
8	IS	72	75	3	9
9	JA	71	75	4	16
10	JP	72	73	1	1
11	JR	73	76	3	9
12	KR	73	77	4	16
13	KM	71	73	2	4
14	KW	74	74	0	0
15	KZ	75	77	2	4
16	LI	71	73	2	4
17	LM	72	73	1	1
18	LR	71	73	2	4
19	LRY	71	74	3	9
20	RUS	72	73	1	1
21	SP	71	75	4	16
22	IM	71	73	2	4
23	JUL	71	73	2	4
24	KR	71	73	2	4
25	KS	71	73	2	4
26	RM	72	75	3	9
27	LZ	71	73	2	4
28	LF	71	71	0	0
29	LA	71	74	3	9
30	MN	71	73	2	4
Σ		2137	2201	64	170
Mean		71	73		

According to the data in the table above, the result of the students' pre-test and post-test was further analyzed using a t-test in some steps as follows:

The first thing to do in analyzing the data was to determine the standard deviation, then followed by a t-test, which was aimed to see the significant difference of the results.

Determining the standard deviation of the scores:

1. $SD = \dfrac{\sqrt{\sum D^2 - \frac{1}{N}(\sum D^2}}{N-1}$

$$SD = \dfrac{\sqrt{170 - \frac{1}{30}(\sum 64)^2}}{30-1}$$

$$= \dfrac{\sqrt{170 - \frac{1}{30}(4097)}}{30-1}$$

$$= \dfrac{\sqrt{170 - 136.5}}{29}$$

$$= \dfrac{\sqrt{335}}{29}$$

$$= \sqrt{116} \qquad = 1.07$$

2. Correct SD

$$SD = \dfrac{SD}{\sqrt{N}}$$

$$= \dfrac{1.07}{\sqrt{30}}$$

$$= \dfrac{1.07}{\sqrt{5.477}} \qquad = .196$$

3. T – test

t obs = $\frac{X1-X2}{SD}$

X1 = $\frac{\sum X1}{N}$

= $\frac{2137}{30}$ = 71

X2 = $\frac{\sum X1}{N}$

= $\frac{2201}{30}$ = 73

t obs = $\frac{X1-X2}{SD}$

= $\frac{71-73}{.196}$

= 10.2

Hypothesis Testing

After analyzing the data using the t-test formula, the next thing to do was to test the hypothesis, that is to decide which of the two hypotheses to accept and which one to reject. Based on the t-test above, it can be decided that Ha is accepted (as the difference in the students' scores of the pre- and post-test were significant) and therefore, H0 is rejected.

Discussion

The research aimed to answer the question about the use of mind mapping techniques to improve students' speaking skills on retelling narrative story. The result of the previous data an analysis above shows that there is a significant effect of mind mapping technique to improve students' speaking ability on retelling narrative stories at the third semester students.

The result is in line with Pramono (2013, cited in Mirza, 2016:19) who claims that a mind mapping strategy will help students to improve their

speaking ability in some aspects, in this study their ability to pronounce words and use vocabulary. It means that mind mapping is a supportive tool to help students to improve their communication ability in terms of their pronunciation and vocabulary use.

The fact that there was an increase in students' mean scores from the pre-test (from 71-73) supports the findings of the previous study on this topic. Patria (2016), Mirza (2016), and Fitriana (2018). Based on this, researchers found that by using mind mapping, students got more confidence in retelling the stories they created using mind mapping techniques. Students can easily remember and retell their stories using their own memories and the vocabulary they have.

These findings were in line with Buzan (2005:17) said that Mind Mapping helps with communicating,

being more creative, solve problems, concentrate, remember be better, and study faster. Moreover, it was also in line with Gelb (2010:7) who states that mind mapping is a creative tool in generating and thinking through ideas.

D. Conclusion

Based on the data analysis in the previous chapter it can be concluded that mind mapping has been proven to significantly improve student's speaking skill. The results of the t – test show that the values of the t – score is 10.24 and t – table is 1.699 on degree of significance is 0.05 and the result score of pre – test is 71 and post – test result is 73. It means that the t – score is higher than t – table. Therefore, the alternative hypothesis (Ha) is accepted, and null hypothesis (Ho) is rejected. In short, the use of mind mapping technique is effective to

improve students speaking skill on retelling narrative story.

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