

THE EFFECTIVENESS OF MIND-MAPPING TOWARDS STUDENTS' WRITING SKILL

Edi Firman¹, Fathurrahman Imran², K. Dedy Sandiarsa³

Faculty of Language and Education, IKIP Mataram

e-mail: firmaneddy3@gmail.com, imran.sandongan@gmail.com

dedysandiarsa36@gmail.com

Abstract: This research was intended to analyze the effect of mind mapping towards students writing skill at the second semester students of FPBS IKIP Mataram in academic year 2015/2016. This study was quasi experimental research, where the sample was cluster randomly selected with the total number of sample was 65 students which were divided into 2 classes; 29 students were in the control group and there were 36 students belong to experimental group. In order to collect the research data, the writer used writing test to comprehend the students' ability in managing text based on mind mapping concept. After the data was obtained, then it was analyzed by applying descriptive statistical analysis and inferential analysis. Regarding to the data analysis it was found that the students' ability before treatment was 69.72 in the significant level 95%. On post-test data analysis, the students mean writing ability increased into 77.22. The inferential analysis or hypothesis testing also proved that the t-test was higher than t-table in the significant level 95% ($\alpha = 0.05$) and degree of freedom 63 ($4.158 > 2.000$) with p value (sig.) $0.00 < 0.05$. It was clearly claimed that the alternative hypothesis (H_a) which stated that mind-mapping was effective towards students writing at second semester students of FPBS IKIP Mataram in academic year 2015/2016 was accepted and the null hypothesis (H_0) that said main-mapping is not effective toward students writing at second semester students of FPBS IKIP Mataram in academic year 2015/2016 was rejected. Those data evidently proved that mind mapping was effective towards students writing especially at second semester students of FPBS IKIP Mataram in academic year 2015/2016.

Keywords: *Mind-mapping, Interest, Writing Skill*

INTRODUCTION

Learning about language derives us to understand that there are four skills need to be mastered; Listening, Speaking, Reading and Writing. In language learning process, we firstly learn to listen then to speak, and we learn to read then finally to write. These procedures are called the four "language skills": In its application, the four language skills are not self-contained but they are related one another. Unfortunately, writing is still regarded as difficult skill to be accomplished because the students hard to come up with writing ideas, arranged the ideas into sequences and mostly writing does not achieve direct feedback from its reader meaning. The existence of appropriate strategy in teaching learning process may strengthen the complexity of teaching and learning writing. Practically, the students frequently have difficulties in finding the ideas about what to write, and if they have the writing ideas, then they have unclear thought how to write it into appropriate and comprehensible writing. Some students are able to express their ideas in written form but sometimes they have no idea how to manage their writings. Theoretically, the students have unclear

understanding about language use, Mechanical skills, treatment of content, Stylistic skill, Organizing and development and appropriateness of vocabulary selection based on the genre of the texts. In fact, those barriers predispose the class room teaching learning process which creates monotonous learning activities. Kendall & Khoun (2006. P.11) claims that 'there are so many teachers find that teaching writing is very intimidating'. Therefore, it is necessary investigate and develop some techniques, methods, strategies and tools to helps the students in writing difficulties. This study proposes mind-mapping to facilitate students in mastering writing skill, because the concept of mind-mapping assumingly able to stimulate the students' idea in creating the writing frame, so that they will completely getting involve on teaching learning process and also help both teacher and students in organizing the idea and understanding the cores of writing components and aspects

Based on the background of study, this study determines the following research questions: Is mind-mapping effective towards the intensification of students' writing skill?

This research is aimed at investigating the theoretical questions stated on the research questions above: It is aimed to investigate the effect of mind-mapping towards students' writing skill.

RESEARCH METHOD

This study is quasi-experimental research. It was used to establish possible cause and effect between independent and dependent variables. Quasi-experimental is applied because it occurs in natural educational setting, where the work is done in real school or classroom setting and design used was pretest and posttest.

This research was conducted on March to November 2016 and conducted and the second semester of FPBS IKIP Mataram in academic year 2015/2016.

FINDINGS AND DISCUSSION

Finding

There were two techniques of data analysis applied regarding to the students writing to acquire comprehensible description of data finding those were descriptive statistic and inferential statistic.

1. Descriptive

The post-test descriptive data was displayed to understand the data summary after treatment was applied, whether there was an improvement of the students writing ability which is caused of the treatment or it was converse. But in order to convince the effect of treatment towards dependent variable, it is need to continue the data analysis into hypothesis testing. The clear descriptive data analysis of both groups (Control and Experimental Groups) post-test could be identified on the table below (table 1):

Table 1: Pre-test result of Control and Experimental Group

<i>CONTROL GROUP POST-TEST</i>		<i>EXPERIMENTAL GROUP POST-TEST</i>	
Mean	69.13793	Mean	77.22222
Standard Error	1.405237	Standard Error	1.328032
Median	70	Median	80
Mode	65	Mode	85
Standard Deviation	7.567431	Standard Deviation	7.968191
Sample Variance	57.26601	Sample Variance	63.49206
Kurtosis	2.781003	Kurtosis	-1.15899
Skewness	-0.74882	Skewness	-0.47597
Range	40	Range	25
Minimum	45	Minimum	60
Maximum	85	Maximum	85
Sum	2005	Sum	2780
Count	29	Count	36

The table 1 above displayed the post-test result of control group and experimental group. Sequentially described that the count label of control group was 26, it meant that there were 29 students involved in teaching learning process until final test and there was no students missing. Regarding to the control group mean score, it was identified that the average students' writing ability in significant level 95% was 96.13, this result was higher than pre-test (64.82 < 69.13). This result also proved the improvement, although the increasing value merely about 4.31 point. The median score (70) explained that there were 50% of the students in control group got

score 70 upward and there were about 50% of the students got 70 downward, the variety level of the data was described with standard deviation and variance (7.56 and 57.26), meanwhile the data skewness clarified that the data was normally distributed, because the result of skewness -0.74 smaller than -2.00.

2. Inferential Statistics

Based on the normality and homogeneity test by using SPSS 21, the analysis claimed that the data were normal and homogeneous, the obvious understanding of the data, it can be observed on the figure below:

Figure 1. SPSS ®: Two-Sample Kolmogorov-Smirnov Test

Test Statistics ^a			Unstandardized Residual
Most Extreme Differences	Absolute		.313
	Positive		.230
	Negative		-.313
Kolmogorov-Smirnov Z			1.255
Asymp. Sig. (2-tailed)			.086
	Sig.		.046 ^b
Monte Carlo Sig. (2-tailed)	95% Confidence Lower Bound		.000
	Interval Upper Bound		.097

a. Grouping Variable: KELOMPOK
 b. Based on 65 sampled tables with starting seed 1314643744.

Test of Homogeneity of Variances			
SCORE			
Levene Statistic	df1	df2	Sig.
2.295	1	63	.135

The SPSS 1 ® above shows that the 1st group data of *asym.sig. (2-tailed was* The SPSS 4.1 ® above shows that the 1st group data of *asym.sig. (2-tailed was 0.086* which proved that the data is higher than $\alpha = 0.05$ in the confidence level 95% ($0.086 > 0.05$). so, it is underlined that the data was normal. In the 2nd group of test homogeneity of variance confirm that the sig. value was 0.135 in the degree of freedom was 63 in 95% of confidence level. It is understood that the sig. value is higher that

α 5% ($0.135 > 0.05$). The value clarified the data was homogeneous, therefore, it was appropriate to test the hypothesis by applying the inferential statistic and taking generalization of the population. Hypothesis testing is applied to investigate whether mind-mapping is effective towards students writing ability or converse. The data was analyzed by using SPSS 21 and the result was summarized on the figure below:

Figure 2. SPSS ®: Independent Sample Test

Group Statistics				
Group	N	Mean	Std. Deviation	Std. Error Mean
Method 2	36	77.22	7.968	1.328
1	29	69.14	7.567	1.405

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	
Method	Equal variances assumed	2.295	.135	4.158	63	.000	8.084	1.944	4.199	11.970
	Equal variances not assumed			4.181	61.259	.000	8.084	1.933	4.218	11.950

The SPSS Figure 1 clearly defined that the result of independent t-test in significant level 95%. The 1st group stated that the average ability of students writing which was taught by using mind-mapping was 77.22 with standard deviation 7.96, meanwhile conventional method was 69.14 with standard deviation was 7.56. Descriptively, it could be stated that the students whom taught by using mind-mapping strategy had better ability in writing compared to the students whom taught by using conventional strategy.

On the 2nd group in the *Equal variance assumed* label, on line *Levene's test for Equality of variance* was obtained $F = 2.29$ with p value (sig.) was $0.135 > 0.05$, which mean that the population variance was homogenous. And the the 3rd group of *t-test equality of means* identified that t-test value was 4.158, $df = 63$ with p value (sig.) $0.00 < 0.05$ or H_0 (null hypothesis) which claimed that mind-mapping was not effective toward students' writing was rejected and the alternative hypothesis (H_a) which stated that mind-mapping was effective towards students writing was accepted. Thereby, it could be concluded the students' score in writing taught by using mind-mapping is higher than the students whom taught using conventional strategy.

Discussion

The statistical data either descriptive or inferential proved that mind mapping was effective in improving the students' writing ability, especially at second semester of FPBS IKIP Mataram in academic year 2015/2016. Derived from descriptive statistics analysis, it was described that the average students' writing ability before treated by applying mind mapping was 69.72, there were almost 50% of the students in control group got score from 70 upward and about 70 downward. Meanwhile, the average writing ability of the control group was 64.82 with median and mode was 65 in significant level 95%. After the different treatments were applied and completed to each group, both of them experienced writing ability improvement.

The writing ability improvement could be observed from the increasing of mean score. The control group means score increase from 64.82 to 69.13 in the significant level 95%, meanwhile the experimental group experienced good average score from 69.72 into 77.22. Nevertheless, the effect of treatment in the experimental group better than control group which was mean that mind

mapping was effective towards students writing ability.

The effect of mind mapping also could be observed towards the students ability in managing their idea and recast the idea into an appropriate sequences of writing. Mind mapping helped the students to apprehend the writing idea, decide the text genre, mapping the idea into topic sentence, find out sub-topic of each topic sentence, in addition, this strategy stimulates the writer or the students to have key words of each point of the texts genres so that the students able to focus on what they are writing.

Mind-mapping give the students an effective time in writing because the already have the point of the writing, they have the topic, sub-topic and supporting idea and how they will end the writing and then the students presently need to connect the puzzles of the idea in the map into well-arranged sentences, this strategy assisted the students in minimizing writing nervous, reducing deadlock of mind because losing of idea. In short, mind mapping leads the students to catch the writing idea, start and end up the writing with appropriate order and genre.

The effectiveness of mind mapping towards students writing ability at second semester of FPBS IKIP Mataram in academic year 2015/2016 also confirmed with the inferential analysis or hypothesis testing, where the data analysis indicated the t-test value was higher than t-table in significant level 95% degree of freedom 63 ($4.158 > 2.000$) with p value (sig.) $0.00 < 0.05$. it is pointed out that the alternative hypothesis (H_a) which stated that mind-mapping was effective towards students writing at second semester of FPBS IKIP Mataram in academic year 2015/2016 was accepted and the null hypothesis (H_0) that said main-mapping is not effective toward students writing at second semester of FPBS IKIP Mataram in academic year 2015/2016 was rejected. Those data evidently proved that mind mapping was effective towards students writing especially at second semester of FPBS IKIP Mataram in academic year 2015/2016.

CONCLUSION

Derived from the research proposal, finding and data analysis on the previous chapter, then this writing come close into conclusion

1. This thesis was intended to analyze the effect of mind mapping towards students writing ability at the second semester

- students at IKIP Mataram in academic year 2015/2016
- The data analysis through descriptive statistic and hypothesis testing proved that mind mapping was effective towards students writing ability, the statistical number confirmed that the improvement of students writing was indicated from mean score. Before treatment, the students' average ability in writing was 69.72 and the treatment using mind mapping increase their ability into 77.22 in significant level 95%. This value also was strengthened with the result of hypothesis testing, where it indicated that the t-test value was higher than t-table in significant level 95% degree of freedom 63 ($4.158 > 2.000$) with p value ($\text{sig.} < 0.05$). this end result verified that the alternative hypothesis (H_a) was accepted and null hypothesis (H_0) was rejected
 - Mind mapping was effective because mind mapping lead the students to comprehend what they are going to write, find out the idea, arrange it into appropriate sequences and order, formulate the key words that help them focus on the track and finally creating good writing.

SUGGESTION

This thesis could be still far away from perfection, therefore it is widely opened some ideas in completing this writing. But refer to the finding, we would like to offer give suggestion as follow:

Creative teaching is not merely refer to material development, but teaching strategy also influential teaching learning process and the improvement of the students ability. Such us mind mapping, it is effective towards students writing ability, because mind mapping may help the students to manage the idea and writing.

The teaching learning process could not be occurred without any active and creative involvement of the students, because teaching strategy is only a tool that needs involvement of all side. Therefore, the collaboration of teacher and students in teaching learning process is deeply needed

BIBLIOGRAPHY

- Ainley, M., 2002. *Interest, Learning and Psychological Processes That Mediate The Relationship*. Journal of education and philosophy. University of Melbourne
- Alamsyah, M. 2009. Kiat Jitu Meningkatkan Prestasi Dengan Mind Mapping. Mitra Pelajar Jogjakarta.
- Best, J., W & Kahn, J., V. 2006. Research in Education. Tenth Edition. United State: Pearson Education Inc.
- Brett., Et. al. 2012. The Effects of Mind Mapping Activities on Students' Motivation. International Journal for the Scholarship of Teaching and Learning Volume 6 Number 1 Article 5.
- Buzzan, T. ... The Buzzan Study Skills Handbook.
- Heaton, J.B., 1988. Writing English Language Test. Longman Group. UK.
- Muijs, D. 2004. Doing Quantitative Research in Education with SPSS. London: SAGE Publications
- Mulyatiningsig. 2013. Metode Penelitian Terapan Bidang Pendidikan. Bandung: Afabeta
- Murcia, M., C. 2001. Teaching English as Second and Foreign Language. Heinle & Heinle. United State of America
- Nast., J. 2006. Ideas Mapping: How to Access Your Hidden Brain Power, Learn Faster, Remember More, and Achieve Success in Business. Wiley. New Jersey
- Oemar Malik. 2010. Proses Belajar Mengajar. Bumi Aksara. Jakarta
- Peter. K., Megan, W. 2005. Genre, Text, Grammar: Technologies for Teaching and Assessing Writing. University of New South Wales. Asutralia
- Riswanto & Pebri., P.,P. 2012. The Use of Mind Mapping Strategy in the Teaching of Writing at SMAN 3 Bengkulu, Indonesia. International Journal of Humanities and Social Science Vol. 2 No. 21; November 2012
- Sardiman. 2012. Interaksi dan Motivasi Belajar Mengajar. Rajawali Press. Jakarta
- Sugiyono., 2012. Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, Dan R&D. Alfabeta. Bandung.
- Vicki. U., & Monette. M., 2005. Teaching Writing in the Content Areas. ASCD. USA