

## The Influence of Project-Based Brain-Writing Learning Model to Increase the Writing Skill toward Indonesian Subject at Elementary School

Dian Permatasari Kusuma Dayu<sup>1,2✉</sup> & Haryanto<sup>2</sup>

<sup>1</sup> Universitas PGRI Madiun, Jawa Timur, Indonesia

<sup>2</sup> Universitas Negeri Yogyakarta, Indonesia

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### Abstract

This study explained about the concept of project-based brain-writing learning model in the teaching and learning process of writing skill in Indonesian subject. Learning became the process to deliver the theory to the students through stimuli and responses. One of the aspects that were very important to determine the learning achievement was the using of learning strategy and the interactive learning media that could motivate the students in the learning process. The research has purposed to find the effect of the Brainwriting learning model based on project-based learning to improve Indonesian writing skills. The research method used an experimental method research design. The research population was five classes of Public Elementary School 1 Klegen Madiun. Analyzing the results that there is a significant effect of project-based learning brainwriting models on Indonesian writing skills. This study used a project-based brain-writing learning model that hopefully could give the easier learning process for the students.

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✉ Correspondence address:  
Setiabudi No.85, Kanigoro, Kartoharjo,  
Madiun, Jawa Timur 63118  
E-mail: [dayuprasanda12@gmail.com](mailto:dayuprasanda12@gmail.com)

## INTRODUCTION

The Indonesian language was one of the subjects contained in the educational curriculum substance of the elementary school. There were four skills contained in Indonesian learning, such as listening, speaking, reading, and writing. The writing skill became one of the skills that must be learned and mastered by the students. Learning writing became an important skill in the school since it would be the students' basic writing skill. The writing skill was very important to be mastered by the students. The writing skill was the skill that was very difficult to be mastered than other skills. This skill must be practiced gradually. It could make someone easily to deliver their idea or thought not only in oral form but also in written form, such as the work of erudition. It was a result or product in the form of written based on the knowledge, attitude, and scientific thought (Wendra, 2009).

There were the students that had less interesting and motivation to learn Indonesian subject. It could be seen from their passive response to write a story when teaching and learning were processed in the classroom. Instead, the students did not pay attention to the teacher's explanation of the materials they do other activities that did not relate to the learning materials. It made a boredom condition in the classroom, and they did not have a passion for learning. It caused other problems such as the lack of students' creativity toward learning Indonesian subject. Besides, the students' skill comprehension was far from completeness and learning goals. Therefore, creating an interesting learning condition became the teachers' challenge. In this case, the teacher must change the classroom condition into a comfortable condition that could make the students more concentrate and did not feel bored to learn.

Gie (2002) writing skill is a skill that emphasized on making a word, number, name, or language symbol by using writing tools in the certain page or paper, whereas expressing story became the series of someone's activity in expressing the concepts and delivered it through the written form to be understood by the reader.

In writing a text, there was a writing objective. Based on Fairclough (1995) in principle, to write means to try to produce or reproduce written message. On other words, writing became an effort to make or to review the present or previous text. Writing became a skill in which someone had to improve his/her skill to express the ideas or concepts to other people through written form. Each writer had the objectives with his/her writing, such as persuading, informing, convincing or entertaining the reader.

Based on Brahm and Kleiner (Wilson, 2013) the Brain-writing was a method that could produce the ideas fast by asking the students to write their ideas in the paper and shared their ideas with the others. This way was more effective than expressing their ideas in oral form, for example, in a brainstorming activity. And than Therefore, the Brain-writing model could be used as a learning strategy to increase the writing skill to find out the ideas. It could be concluded that this model was a model to deliver the ideas or concepts dealing with solving problems or about the thing in written form.

The PJBL model was done to deepen the students' knowledge and skills that were gotten by making an article or doing a project relating to the materials and the competencies that must be achieved by them. Istarani (2011) stated that project-based learning was a model or an innovative learning approach that emphasized on contextual learning through complex activities or tasks. Thus, Thomas (Wena, 2008) stated that project-based learning was the learning model that allowed the teachers to arrange the learning activity in the classroom involving the project work. The teachers or instructors, here, had a role as a passive participant, or they did not train the students directly, but they became a facilitator that must understand the learning process (Ngalimun, 2014).

The implementation of project-based brain-writing (PJBL) in the learning writing process was needed to solve some problems of learning writing. The brain-writing learning model, however, was done to get various ideas about some topics or theme of learning. This model was a combination of thinking process that

would deliver some interesting ideas or concepts. This learning model would train the students to find out many ideas or concepts since it was arranged to push each student to engage their ideas with other ideas.

## METHODS

This research was experimental. Experimental methods can be interpreted as research methods used to find the effect of certain treatments on others under controlled conditions. (Sugiyono, 2016). The population of this research was all student Public Elementary School in Madiun. In this research, two variables were free variable and bond variable. The free variable was the project-based brain-writing learning model, and the bond variable was the writing skill of Indonesian subject. The sampling technique that was used by the researcher was luster random sampling technique. This random sampling technique is first determined by two classes to be sampled by drawing, and then the two classes are drawn again to determine the experimental group and the control group. Learning writing skills in

the experimental group is done using the project-based learning model, while in the control class learning writing skills is done without using the project-based learning model

## RESULTS AND DISCUSSION

### Normality and Homogeneity Test

There was a pre-requirement test that must be done by the research that was normality and homogeneity test. The data that was used as the data resulting from the score result test of the fifth-grade students (control group) of Public Elementary School 2 Klegen Madiun and the fifth-grade students (experiment group) of Public Elementary School 1 Klegen Madiun. Three writing tasks must be done by the students.

There were 20 students in the experiment group that were given the writing tasks about human and environment. Based on the students' score result at the experiment class, the data showed that students' number (N) = 20 students; highest score = 91; lowest score = 67; mean = 76; median = 75; mode = 75; and deviation standard = 7.719.

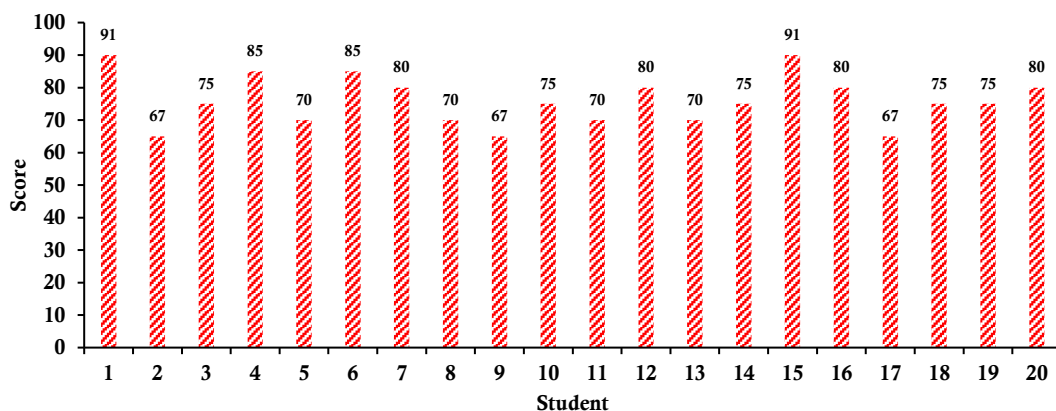


Figure 1. The Graphic of Writing Score of Experiment Class

Besides, the control class used conventional learning model. There were 20 students that were given a writing task about some occupations. Based on the students' score result at the control class, the data showed that students' number (N) = 20 students; highest score = 85; lowest score = 50; mean = 65; median = 62.5; mode = 60; and deviation standard = 7.7876.

The results of the normality test, here, we're used to knowing whether the sample data came from the population in the normal distribution or not. This research used the *Lilliefors* method to get the normality test by the significant level  $\alpha = 0.05$ . The critical area in this test was  $DK = \{LIL > L_{0.05; n}\}$ . Based on the normality test result with the criteria test,  $H_0$  was accepted, or  $H_1$  was rejected if the result was

$L_{\text{value}} \leq L_{\text{table}}$ , and  $H_0$  was rejected, or  $H_1$  was accepted if the result was  $L_{\text{value}} > L_{\text{table}}$ . The data analysis result of the normality test was gotten from the post-test result of experiment and control class. For the control class, it got  $L_{\text{value}} = 0.248 < 0.268 = L_{\text{table}}$ , so it meant that  $H_0$  was accepted and it was distributed normally in the

population. Moreover, the result that was gotten from the experiment class was  $L_{\text{value}} = 0.145 < 0.190 = L_{\text{table}}$ , so  $H_0$  was accepted, and it was also distributed normally in the population. The analysis of normality test from experiment and control class could be seen in table 1.

**Table 1.** The Analysis of Normality Test From Experiment And Control Class

Class	$L_{\text{value}}$	$L_{\text{table}}$	Result	Conclusion
Control	0.248	$L_{(0.05; 10)} = 0.268$	$H_0$ was accepted	Normal distribution
Experiment	0.145	$L_{(0.05; 20)} = 0.190$	$H_0$ was accepted	Normal distribution

Besides, the result of the homogeneity test showed that it got  $F_{\text{value}} = 1.328$  by the criteria of the test  $H_0 = F_{\text{value}} \leq F_{\text{table}}$ ,  $1.328 \leq 2.42$ . It meant

that  $H_0$  was accepted, so it got the conclusion that the sample came from the population that had the homogeneous variant.

**Table 2.** The Homogeneity Test Analysis

$F_{\text{value}}$	$F_{\text{table}}$	Criteria	Result
1.328	$F_{(0.05; 19,9)} = 2.42$	$F_{\text{value}} \leq F_{\text{table}}$	$H_0$ was accepted

Table 2 it could be seen that the data analysis of homogeneity test got  $F_{\text{value}} = 1.328$  by the criteria of the test  $H_0 = F_{\text{value}} \leq F_{\text{table}}$ ,  $1.328 \leq 2.42$ . It meant that  $H_0$  was accepted.

**The Analysis Result of t-test**

After confirming that the data came from the population that distributed normally and had a homogeneous variant, thus the data was tested its hypothesis by using t-test with the significant standard  $\alpha = 0.05$ . There was the influence of project-based brain-writing learning model to increase the fifth-grade students of Indonesian writing skill at Public Elementary School 1 Klegen Madiun at 2017/2018.

Based on the steps of the hypothesis test that was already done, the analysis result of t-test could be seen in table 3.

**Table 3.** The Analysis Result of t-test

Treatment	$t_{\text{value}}$	$t_{\text{table}}$	Conclusion
Project-based brain-writing learning model	3.700	1.701	$H_0$ was rejected/ $H_1$ accepted

Based on table 3 it could be gotten that  $t_{\text{value}} = 3.700$  whereas  $t_{\text{table}} = 1.701$ . In regard to the criteria of the test,  $H_0$  was rejected/ $H_1$  was accepted in this research since there was  $t_{\text{value}} > t_{\text{table}}$  or  $3,700 > 1,701$ .

Success in improving story writing skills requires the right model to be applied, one of which is project-based learning based brainwriting learning. The process of learning to write stories in Indonesian language learning is done by brainstorming in parallel and groups can produce ideas and ideas productively. Students can express ideas and ideas in the form of stories and can advise friends.

The purpose of this t-test was to determine the effect of project-based learning based brainwriting learning models on Indonesian writing skills. But before the hypothesis is tested, a prerequisite test is done first, namely the data normality test and data homogeneity test. The data analysis result of the normality test was gotten from the post-test result of experiment and control class. For the control class, it got  $L_{\text{value}} = 0.248 < 0.268 = L_{\text{table}}$ , so it meant that  $H_0$  was accepted and it was distributed normally in the population. Moreover, the result that was gotten from the experiment class was  $L_{\text{value}} = 0.146 < 0.190 = L_{\text{table}}$ , so  $H_0$  was accepted, and it was also distributed normally in the population. The result of the homogeneity test showed that it got  $F_{\text{value}} = 1.328$  by the criteria of the test  $H_0 = F_{\text{value}} \leq F_{\text{table}}$ ,  $1.328 \leq 2.42$ . The meaning that  $F_{\text{value}}$  is not located in the area of criticism so that  $H_0$  is

accepted. Because  $H_0$  is accepted, so the two samples are homogeneous.

From the results of observations conducted by researchers on the experimental class and the control class in the learning process of the experimental class or class given the learning model based on brainwriting learning students seemed enthusiastic and active in learning, students were very enthusiastic about developing creative ideas in writing stories in learning Indonesian. Referring to the formulation of the problem and hypothesis in this study, which is based on hypothesis testing conducted, it can be clarified that the talking stick learning model further improves writing skills in Indonesian language learning.

Brainwriting based project-based learning models can help educators and students achieve learning goals that have been included in the learning plan. The model of project-based learning also has a positive impact on the results of writing stories in learning Indonesian. Reis (2008) in Brainwriting, all the participants, can simultaneously have ideas and are stimulated develop more ideas generated by other participants. Rodrigues, Eyng, Agner, Lima, and Reis (2008) brainwriting is also a simple form and without costs for any organization to adopt, however as the use of techniques that stimulate creativity is a form rarely used, it is necessary that managers perceive, stimulate and motivate the teams to develop the creative potential to each collaborator. Paulus, and Nijstad (2003) explain that Brain Writing is done to produce diverse ideas about a subject or topic of conversation. Brain Writing aims to form or grow ideas in writing based on the information above, and it can be concluded that this study has succeeded in improving skills in writing stories in learning Indonesian.

## CONCLUSION

The study of project-based brain-writing learning model got the data result of the fifth-grade students Public Elementary School 2 Klegen Madiun toward their Indonesian writing skill. It was done at control class that was not

given treatment, and they only got the conventional learning model. Besides, they got the mean result as 62.5, whereas the experiment class or the class that was given a treatment of learning model got the mean = 75. Based on the data analysis result of project-based brain-writing learning model toward Indonesian writing skill, it could be gotten  $t_{\text{value}} = 3.700$  and  $t_{\text{table}} = 1.701$ . According to the criteria test, this research got the result that  $H_0$  was rejected or  $H_1$  was accepted since the result was  $t_{\text{value}} > t_{\text{table}}$  or  $3.700 > 1.701$ . It concluded that there was the influence of project-based brain-writing learning model significantly toward the Indonesian writing skill

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