# The Effect of Scaffolding toward Students' Writing Procedure Text

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## ABSTRACT

The purpose of this study was to determine whether scaffolding can have a significant effect on students' ability to write procedure texts. In this study, the sample used is the students of grade XI SMA Muhammadiyah 25 Setiabudi Pamulang. The sample was from the class XI IPA 1 as the experimental class and XI IPA 2 as the control class. Each of them consists of 36 students. The writer used purposive sampling technique in determining the number of samples from the existing population. The method used was quantitative and the design used was quasi-experimental study. The instrument in this study was a written test. To ensure the reliability of the instrument, the writer uses a rubric in the assessment called analytic scoring adopted from John Anderson to assess student writing in pre-test and post-test. The findings of this study were the mean score of pre-test of experimental class students was 56.47 and the mean score of the student's post-test was 76.14. In contrast, the students' pre-test mean score of the controlled class was 63.25 and the mean score for the post-test was 66.72. The significant effect was shown by the students' post-test mean score of the experimental class which was treated by scaffolding technique was greater than the post-test mean score of the controlled which was not treated by scaffolding technique. The result of the statistical hypothesis test found that on significance level 0.000 < 0.005. Thus the H0 (Null Hypothesis) was rejected and the H1 (Alternative Hypothesis) was accepted. It proved that the application of scaffolding technique is effective towards the students' skill in writing procedure text.

## INTRODUCTION

Writing is one of the important skills in human life. Talking about writing, most people did the writing. When they are asked what is writing, they may answer that writing is one way to communicate with each other through a paper and a pen. Writing is usually thought to be the most difficult skill to acquire and should only be taught

after students have learned the other skills. To write well, we must have good capabilities in writing process and aspects of writing. The writer must be able to organize the idea, to construct the sentence, to use punctuation and spelling well. When the teachers teach English in school, they will find many phenomena. They probably will find some students with good, medium, or poor ability in their writing skill.

In writing, the main product is a written text. Spratt, Pulvernes, & Williams (2005, p. 26) states that writing is one of the productive language skills which deals with conveying messages with the use of graphic symbols. According to them, writing is an activity to communicate one's idea by using letters, words, phrases, and clauses to a series of related sentences. This definition shows that writing is conveying a message through a written text. In other words, writing is a communication between a writer and a reader with the use of printed symbols. Writing is a productive skill. However, it must be through a process which is not easy to get it through. Students need more attention when they learn the rules or steps from writing form. Therefore, writing skill is more complex and more difficult than other skills to teach because it is not only requiring mastery on grammatically and rhetorical devices but also on conceptual and judgment devices.

In the teaching and learning process of writing, the teacher has an important role. A teacher should give much practice to improve student's ability in English. Applying writing activities in teaching can make the students' and teachers' experienced

processes are visible as they learn. Hyland (2002: 7) states that writing is principally conducted to demonstrate knowledge of decontextualized facts with little awareness of a reader beyond the teacher-examiner. Writing is both physical and mental work. It means that writing is the physical act of committing words or ideas to some medium, and is mental work of inventing ideas, thinking about how to express them into statements and paragraphs well. Meanwhile, Brown (2012) explained that "writing is, in fact, a transaction with words whereby you free yourself from what you presently think, feel, and perceive".

Writing skill should also be supplementary covered because the skill will also contribute to the students speaking skill. They often feel confused about what they will write. The text has the purpose to instruct how to do something or make something in particular structures such as (goal, ingredients/materials, method and conclusion/evaluation).

Writing a procedure text is one of the writing competencies that the students have to produce or perform. We use many kinds of text in daily life. Usually, we read a text on how to operate new things, how to prepare or make something, how to act in some circumstances like school, company, and a community, and how to get to some places. Those kinds of text are called procedure text. Anderson & Anderson (2003, p. 28) also explains the examples of procedure text are recipes, itineraries, instruction manuals, and direction. In their book, Anderson & Anderson (2003) stated that "procedure is a piece of text

that gives us instructions for doing something. The purpose of a procedure text type is to explain how something can be done." A procedure enables people to do things that are new to them or to make sure they do things in the correct order and include all that needs to be done. Then, it can be concluded that procedure text present steps to do something, making something, or going somewhere.

Actually, the nature of writing procedure text is a process; it means students need more time to create good writing. Lack of time in the class makes students work does not run well. They need more time in creating good writing. Hence, proper writing needs more time to reach every single step. Students should know what exactly they have to write. Then, they do prewriting to brainstorm their ideas. Not stop at the step, they should construct a good framework before starting their draft. In addition to the steps in writing which cause problems to the students to do the writing, they are still less vocabulary. They are also confused about using tense and generic structure in writing procedure text.

To face those problems, it needed some appropriate methods. One method known in the world of education is scaffolding. When most of us hear the word "scaffolding", we think of new office building going up, or else aging skyscrapers needing repair. Scaffolding in construction is a means to an end, once the building can support itself, the builder removes the scaffolding. Hammond (2001, p. 13) state that the metaphor of scaffolding has been widely used in recent years to argue that, in the

same way, that builders provide essential but temporary support, teachers need to provide temporary supporting structures that will assist learners to develop new understandings, new concepts, and new abilities.

According to Raymond (2012, p. 176), scaffolding is a technique that is developed by Lev Vygotsky's sociocultural theory and his concept "Zone Proximal Development" (ZPD). ZPD is a distance between what children can do by themselves and the next learning that is assisted by the teacher. The teacher help the student to develop their thinking by referred to what the student has learned. According to Lindsay & Knight (2006, p. 4), scaffolding is the teacher's support, learner's effort that guides students in the right direction, until student gets the knowledge and understand the material. The teacher can support students in learning by build student's background knowledge and internalized new information. The information is important for the student because it will be found in the next material.

Scaffolding technique is a knowledge that is constructed by the student. Student initiates to look for the knowledge that is useful for them. The knowledge also has to suitable material that they are going to learn. Scaffolding technique also needs teacher's role. The teacher's role is to build student's prior knowledge. It is supported by the teacher by providing student's activeness in the class. Therefore, scaffolding is a combination of teacher center and student center.

The term scaffolding is tutoring or other assistance provided in learning

writing setting to assist students with attaining levels of understanding impossible for them to achieve without assistance. Mostly nowadays, teacher just focuses on instructing without giving any hints, any ideas, any suggestion, etc. which help the students to understand what they are asked to do. That can make them hard to be an independent learner. The students should pass some phases to become independently learner. To be an independent learner is an ultimate goal of the learning process.

Scaffolding is an educational context is a process by which a teacher provides students with a temporary framework for learning. Done correctly, such structuring encourages a student to develop his or her initiative, motivation and resourcefulness. Once students build knowledge and develop writing skill on their own, element of the framework are dismantled. Eventually, the initial scaffolding is removed altogether, students no longer need it.

In this study, the writer will experiment scaffolding method in students writing skill. Based on Permendiknas no 41 tahun 2007, it is stated that teaching writing is divided into three main activities, pre-teaching, whilst-teaching, and post-teaching. These activities usually begin with simple activities in pre-teaching activities to build students' knowledge of the material and ended up by giving assignment or test at the end of the learning process.

*Pre-Teaching Activities.* Pre-teaching is an important activity to begin the teaching learning process and to warm the student's up. The pre-teaching activities aim to build students' motivation in learning and to make students focus and being active during teaching learning process. There are some activities in pre-teaching such as warming up. Warming up is an important activity to begin teaching learning process. This activity can engage the students in the topic being discussed.

*Whilst Teaching Activity.* In whilst teaching, the teacher divides the activities into exploration, elaboration and confirmation. 1) Exploration Activities. In exploration, teacher introduces the topic to the students. In choosing the topic, teacher can decide whether to use their topic or get suggestion topic from the students. 2) Elaboration Activities. In elaboration, the teacher and the students discuss the material. This activity aims to introduce the students to the topic. For example, the topic is procedure. The teacher also explains the purpose, the generic structure, and lexicogrammatical feature of the procedure. 3) Confirmation Activities. In confirmation, teacher gives the task to the students to write a procedure. This activity aims to ensure the student's comprehension of material has been discussed. In giving the assignment to the students, the teacher should ease the learners. One way of doing this is by giving the task based on students' experience. It means that the teacher can decide whether to take one topic or let the students select a topic that is familiar to them.

*Post Teaching Activities.* In post-teaching, teacher end the activity by giving the conclusion, reflection, giving feedback, etc. As Celce-Murcia, Brinton, & Snow (2014, p. 406) says that in post teaching, at the end of the lesson, the teacher gives review or summary of the lesson and homework or other assignments to the students. This activity is aimed to make sure whether the

students have master material or not. Then, Read (2010, p. 4) try to make a new model in scaffolding named IMSCI. The IMSCI is the acronym of Inquiry, Modelling, Shared, Collaborative and Independent. As a result, the writer finds that students will be more successful writing independently if they have become familiar with the features of the genre during those steps.

In applying scaffolding as writing technique, it may help teacher to know the weakness of the pupils so he/she can build up the pupils' knowledge. Furthermore, it supports the notion that writing is a process that involves growth, development, and learning as well as a product. It also helps students to become actively involved in assessing their needs, progress, achievement, and effort. It can be said that using scaffolding is an effective way to see students' processes in writing, moreover, the products will be better because they passed some steps. In this research, the writer will choose science class of 11th grade as the sample of study. The reason is science's students more understand about the system process and their writing skill better than social's students.

Based on the background of the study, the writer formulates the problem is "Is there any significant effect of scaffolding toward students 'ability in writing procedure text?"

## RESEARCH METHODOLOGY

In this research, the (x) variable will be scaffolding and the (y) will be writing procedure text. To avoid misunderstanding about terms, the writer defines them. 1) Writing procedure text is one of genre of writing that aims to explain the steps to create something that requires tools and materials. Such as food, drinks, toys, technology, hobbies, etc. 2) Scaffolding is how to build students' independence in learning process. Teacher guide students at the first step and let students stand on their learning over time. So that at the end of the steps, they did not need a teacher anymore.

This research is quantitative research methods that use quasi experimental design. Quantitative research methods are commonly used to determine if an intervention led to a desired outcome. At least there are three kinds of quantitative research designs, they are experimental, quasi-experimental and single-group. In the study, the writer uses quasi-experimental. In this study, the writer wants to find out the significant in using variable x (scaffolding technique) towards variable y (students' skill in writing procedure text). According to Mertens & McLaughlin (2004, p. 57), quasi-experimental designs are those that are "almost true" experimental designs, excepts that the researcher studies the effect of the treatment on intact groups, rather than being able to randomly assign participants to the experimental or control groups. Muijs (2004, p. 26) state that quasi experimental design is meant to approximate as closely as possible the advantage of true experimental designs where the problems mentioned above occur, such as having to implement a program in a natural school setting.

The objective of the study is to find out the significant effect of scaffolding toward students' ability in writing procedure text. Besides, The population in this study is the 11th grade students of SMA Muhammadiyah 25

SetiabudiPamulang in academic year 2017/2018. The total number of students is 175 students and from 5 classes. In addition, the study, the writer use test technique. The tests are pre-test and post test. The pre-test refers to a measure or test given to the subjects before to the experimental samples are the eleven grade students. They are class of 11 Science 1 and the 11 Science 2. The samples are organizing into two classes namely the experimental (XI SCIENCE 1) and the controlled class (XI SCIENCE 2). Each class consists of 36 students.

As quantitative treatment, so in both of class: control and experiment class would be given the same pre-test. After doing the pre-test, the writer does post-test. Post-test is a measure taken after the experimental treatment has been applied. Hence, the post-test will be conducted in the final of the study to see the effectivity of the treatment. Control and experiment class will get a same post-test also.

Pre-test conducted on April 17th, 2018 at experimental class (XI SCIENCE 1) and on April 19th, 2018 at control class (XI SCIENCE 2). The pre-test will be done before the writer gives any treatment. After doing pre-test, the writer teaches both classes about procedure text. In the control class, this learning-teaching activity running as usual without any treatment. Therefore, in the experimental class, the teacher uses scaffolding technique as the treatment. All of students submit their procedure text about their favorite things. There is a difference between control and experimental class, for control class, the students just submit their writing, but in experimental class, they just have passed some steps before submitting their writing as the post-test.

Data analysis done after the writer get the students' writing scores in both tests. To analyze the writing test and to prove the reliability of the instrument, the writer uses analytic scoring. The method of scoring which require a separate score for each several aspects of a task is said to be analytic. After getting score by using analytic scoring, then the writer analyzed the result by using an *Independent Sample t-test.* The data gaining from the post-test of the experimental class and the controlling class. In analyzing the results, the writer uses SPSS.

## FINDING AND DISCUSSION

**The Score of Pre-test and Post-test of the Experimental Class**
In this research, the writer used class XI IPA 1 as the experimental class at SMA Muhammadiyah 25 Setiabudi Pamulang. This class consists of 36 students. Based on the test which was given to the experimental class, the pre-test mean score of students achieved was 56.47. After treatment of scaffolding technique, the mean score of the post-test in this class increasingly achieved 76.14. Then the average of the gained score was 19.67. The finding showed that the mean score of the post-test was higher than the mean score of the pre-test.

From the pre-test results showed that most of the students were good in vocabulary. This finding made the writer knew what should be focused on. To get better scores in the post-test, the writer taught how to create good writing through some steps: brainstorming, drafting, revising, etc. All of those steps were collected in one map named

scaffolding. This scaffolding was used as the treatment in the study to see the significant differences between experimental class and controlled class in the next test, the post-test.

**The Score of Pre-test and Post-test of the Controlled Class**

The controlled class of this experimental research was the students of class XI IPA 2 at SMA Muhammadiyah 25 Setiabudi Pamulang. This class consists of 36 students. Based on the test which was given to students, the students' mean score achieved in the pre-test was 63.25. After the pre-test, the writer conducted the post-test without treatment of scaffolding technique. Eventually, the students' mean score of the post-test achieved in this class was 66.72.

**The Statistic of Experimental Class**

SPSS output table based on statistics obtained 56.47 Mean score and standard deviation of 8.307 on the Pre-test and 76.14 Mean score and standard deviation of 9.122 at Post-test for student's writing ability. As shown in the table below:

Table 1. The Statistic of the Experimental Class

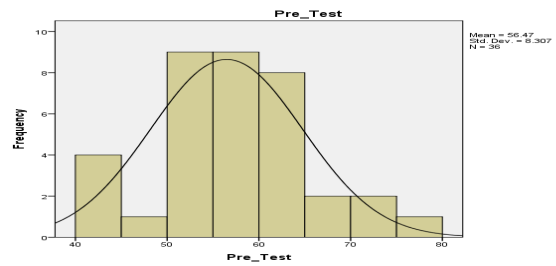| | | Pre_Test | Post_Test |
|---|---|---|---|
| N | Valid | 36 | 36 |
| | Missing | 0 | 0 |
| Mean | | 56.47 | 76.14 |
| Std. Error of Mean | | 1.384 | 1.520 |
| Std. Deviation | | 8.307 | 9.122 |



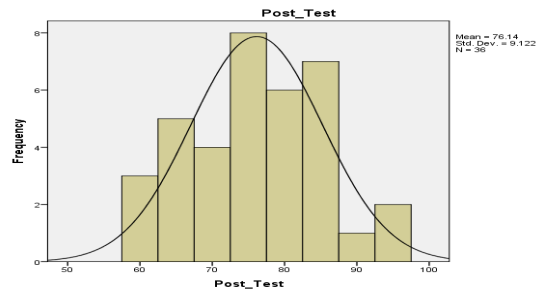Figure 1. The Histogram of Students' Pre-test



Figure 2. The Histogram of Students' Post-test

**The Statistic of Controlled Class**

SPSS output table based on statistics obtained 63.25 Mean score and standard deviation of 6.975 on the Pre-test and 66.72 Mean score and standard deviation of 10.022 at Post-test for student's writing ability. As shown in the table below:

Table 2. The Statistic of the Controlled Class

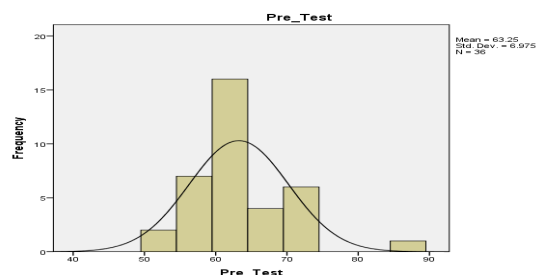| | | Pre_Test | Post_Test |
|---|---|---|---|
| N | Valid | 36 | 36 |
| | Missing | 0 | 0 |
| Mean | | 63.25 | 66.72 |
| Std. Error of Mean | | 1.162 | 1.670 |
| Std. Deviation | | 6.975 | 10.022 |



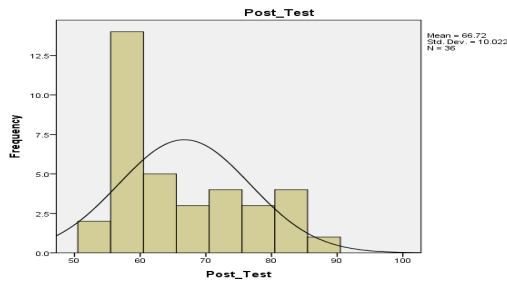Figure 3. The Histogram of Students' Pre-test

Figure 4. The Histogram of Students' Post-test

### Statistical Hypothesis

The last step in analyzing the data was using statistical hypothesis test. It used to know whether there was significant effect in using scaffolding assessment or not.

Table 3. The Result of Independent Sample Test

| | | Levene's Test for Equality of Variances | | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Score | Equal variances assumed | 1.342 | .251 | 4.169 | 70 | .000 | 9.417 | 2.259 | 4.912 | 13.921 |
| | Equal variances not assumed | | | 4.169 | 69.389 | .000 | 9.417 | 2.259 | 4.911 | 13.922 |

Based on the table above, score of Sig. (2-tailed) is 0.000 < 0.005, thus the data support the hypothesis. There is a difference between the average score of students being treated in experimental class than students who were not given the treatment in control class. Then according to the basis of decision making in Independent Sample T-Test, it can be concluded $H_0$ rejected and $H_1$ accepted.

## CONCLUSION

From the instrument of the test, it could be seen that students' scores from pre-test and post-test were improving. In the pre-test, the mean score of students in writing test before giving treatment was 56.47 in Experimental Class and 63.25 in Controlled Class. Then, the mean score increased into 74.16 in the post-test in Experimental Class after given treatment by using scaffolding technique and 66.72 in Controlled Class without any treatment. Therefore, the student that has the highest mean score of post-test in experimental class is 97. It also there is a significant effect in histogram of experimental class. It proves by most of students got score between 53 – 60 in pre-test. After giving treatment, most of students' score increased between 73 – 87 in post-test.

In analyzing the data, the writer analyzed by conducting t-test formula. The calculation between the average score of students being treated in experimental class than students who were not given the treatment in control class showed that t-test got score of Sig. (2-tailed) is 0.000 < 0.005. Based on the criteria for the calculation, the hypothesis null ($H_0$) is rejected and the alternative hypothesis ($H_1$) is accepted. It

can be concluded that there is a significant difference of students' writing achievement between students who are taught by scaffolding technique and students who are taught without scaffolding technique.

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