

**THE EFFECTIVENESS OF DISCOVERY LEARNING IN TEACHING  
WRITING PROCEDURE TEXT AT SMK NEGERI 1  
TANJUNGPINANG**



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# **THE EFFECTIVENESS OF DISCOVERY LEARNING IN TEACHING WRITING PROCEDURE TEXT AT SMKN 1 TANJUNGPINANG**

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## **Abstract**

The purpose of this research is to find out the effect of discovery learning in teaching writing procedure text at SMKN 1 Tanjungpinang. The method that is used is quantitative method which the data is served by numerical and tested by statistical formula of t-test. The research design is quasi-experimental design which involves 30 students in XI AP1 as the experimental and 30 students in XI AP2 as the control class. To get the sample, the researcher used the cluster random sampling. The experimental class was taught by using discovery learning and the control class was taught by lecturing. The researcher gave pretest before teaching learning activity. After the teaching learning activity has been finished, the researcher gave posttest to know the students' learning result. The scores of both pretest and posttest were analyzed by statistics descriptive test. Then, the data were tested by homogeneity, normality, and hypothesis test. From this research, it can be seen that the mean score of experimental class was 75.87 while the mean score of control class was 71.50. It can be concluded that there is a

significant effect of discovery learning in teaching writing procedure text. The t-observation was 3.008 while the t-table 0.05. It means that the t-observation is higher than the t-table. Thus, the null hypothesis is rejected and the alternative hypothesis is accepted. Based on the result of t-test and the differences between mean score of experimental and control class, it can be concluded that discovery learning has a significant effect on students' writing procedure text.

**Keywords: Discovery Learning, Students' Learning Result**

## **INTRODUCTION**

Discovery learning is one of the effective models in teaching English because this model directs the student to find important information that student needs in learning English related to the material. Discovery happens when the student participated especially in a mental process to find some laws, concepts, and principles through the observation, classification, measurement, prediction, and inferi. In discovery learning the student demand to be creative, critical thinking and self-learning so this situation put the student as the center of learning or student-centered learning.

Lefrancois in Emetembun cited in Depdikbud (2014) Discovery Learning can be defined as the learning that takes place when the student is not presented with the subject matter in the final form, but rather is required to organize it himself. Discovery learning is a model in teaching, it helps the teacher to make some planning in teaching related to the material that student learn in a meeting. The meaning of model aims at the pattern or form of references. The model of teaching and learning is a planning or pattern that used as the directive in planning for teaching and learning in the classroom (Trianto, 2007).

English is divided become four language skills, there are listening, speaking, reading, and writing. One of skill in communication not only speaking, but also writing. Writing is a form of communication to deliver thought or express feeling through the written form. When people communicate in writing, they will express their ideas through the words that “speak” to others without get any questions or confirmation that make their information clear (Harmer, 2004). In writing at senior high schools, writing is divided into several kinds, such as narrative, descriptive, procedure, and recount text. They are supposed to be able to write short passages of different kinds of text. One of them is writing procedure text.

Procedure text is a text that is designed to describe how something is achieved through a sequence of actions or steps. It explains how people perform different processes in a sequence of steps. A procedure text as a piece of text that tells the readers or listeners how to do something. Its purpose is to provide instruction for making something, doing something, or getting somewhere (Anderson, 1997).

In teaching English, a teacher is required to be creative and can use some models, methods or strategies to make the students understand the lesson. Based on the researcher experience as a student teacher when doing practice in SMKN 1 Tanjungpinang, English is difficult for the student because some teachers still use traditional method or based on their habits in teaching, so that the students cannot understand what the teacher said/explain. Moreover, with the same condition, it makes student getting bored and this is very influenced by student's score in English subject. Whereas, at SMKN 1 Tanjungpinang already uses scientific approach include discovery learning model in there. Unfortunately, some of the

teachers in SMKN 1 Tanjungpinang still use traditional method in teaching. In a lesson plan (RPP) the teacher uses discovery learning as a model in teaching but in implementation, they don't use it. Some of the teachers always teaching the students based on their habit, this is not appropriate with discovery learning.

In this research, the researcher compares a new and the existing model in teaching which has been used by the English teacher in SMK Negeri 1 Tanjungpinang. The existing model is the lecturing. By this model, the teacher explain subject material and gives brief explaining to the students. To solve the problems on student's writing procedure text which the researcher explained before, the teacher needs an innovative model. Discovery learning demands the student to search the information by their self. After getting the information the students can give the explanation about that and the function of the teacher in here only as mediator and facilitator, all of the activity do it by students. The researcher wants to know the effect of this model on teaching writing procedure text. Thus, the student's learning result which have been taught by discovery learning and lecturing will be compared. Based on the explanation above, the researcher chooses “The Effectiveness of discovery learning in teaching writing procedure text at SMK Negeri 1 Tanjungpinang” as the title of this research.

## **RESEARCH METHOD**

This research was carried out in SMK Negeri 1 Tanjungpinang, Jalan Pramuka No. 06 Tanjungpinang Kepulauan Riau and the study was expected to be conducted on Desember-Januari 2018. This school has X, XI and XII's grades consist of 7 majors. The population of this research is the Office Administration

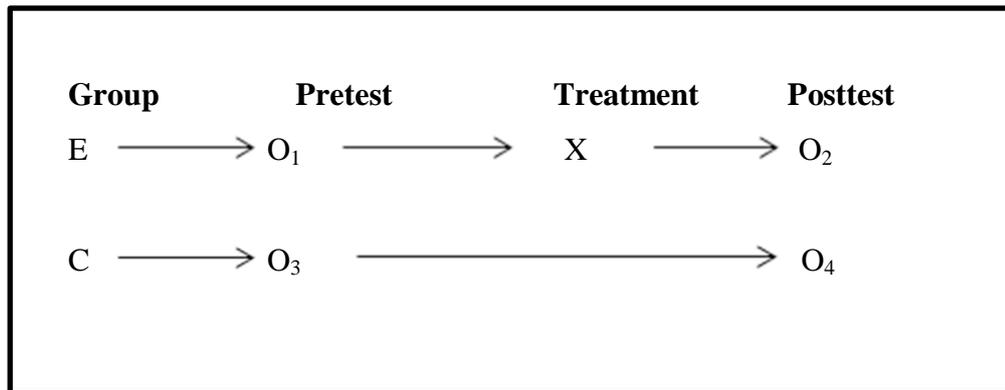
Major at Eleventh grade of SMKN 1 Tanjungpinang in the academic years 2018/2019. The researcher used the cluster random sampling as the sampling technique in order to get the sample for this research. The researcher took class AP1 (30 students) as experimental class and AP2 (30 students) as the control class. The pre-test was given before the treatment. Moreover, the post-test was given after the researcher gave the treatment.

In this research, the researcher used the quasi-experimental method with Pretest-Posttest Control Design. This quasi-experimental research involved two groups: experimental and control groups. The researcher did the experiment and treatment by using the discovery learning in teaching writing procedure text in experiment group, while control group taught by the lecturing. The result of pre-test and post-test of both groups was compared in order to examine whether the treatment given in experimental group was effective on students' writing procedure text.

Typically, an experimental research involves comparison of two groups. Gay et al., (2012) divide experimental research into three types: (1) comparison of two different approaches (A versus B), (2) comparison of a new approach and the existing approach (A versus no A), and (3) comparison of different amounts of a single approach (a little of A versus a lot of A). In this research, the researcher will use the second type: A versus no A. The researcher used a new approach, scientific approach (discovery learning) in teaching writing procedure text at experimental class. In the control class, the researcher used lecturing to teach writing procedure text. Then the researcher compared the students' learning result of both of classes by 't-test' and made a hypothesis. To collect the data,

experimental and control groups are pretested and posttested by the researcher.

The Pretest-Posttest Control Group Design are:



**Figure 1. Research Design Framework**

The researcher used the written test in pretest and posttest. It used to know the effect of the discovery learning to teach writing procedure text. The pretest was given at the beginning of attending class XI AP1 and XI AP2 to know the students' knowledge of the material that was taught. The researcher gave posttest after the treatments. The pre-test had been given before the treatment was given. Moreover, the post-test was given after she had given the treatment to the class. For calculating the data, pre-requisite test and hyphotesis test had been applied.

#### 1. Pre-requisite Test.

It was important to do the pre-requisite test before doing the hypothesis test. The aim of this test was at knowing the legality of the sample. Here, the statistics descriptive, normality and homogeneity test was employed. The aim of statistics descriptive test was at describing the information which collected during a research study. This test provides basic information about the number of students in this research, their characteristics, and what they did on a test. The requirements of hypothesis test (t-test) are the data come from normal distribution

and homogeneous populations. It is important to do the normality and homogeneity test before doing hypothesis test. For normality and homogeneity test the researcher used the formula of Cronbach Alpha in SPSS.

## 2. Hypothesis Test

The researcher processed the data to know the scores of pretest and posttest from both experimental and control classes and their differences. To find out the differences of the students' scores which used discovery learning and the student's scores without using discovery learning in learning writing procedure text. The use of t-test is the data of pre-test and post-test score in experiment class. The formula of the hypothesis is :

1. Alternative Hypothesis ( $H_a$ ) : There is a significant difference between students' scores taught by using discovery learning and without discovery learning for the eleventh-grade students of SMK Negeri 1 Tanjungpinang.
2. Null Hypothesis ( $H_0$ ) : There is no significant difference between students' scores taught by using discovery learning and without discovery learning for the eleventh-grade students of SMK Negeri 1 Tanjungpinang.

## **RESEARCH FINDINGS AND DISCUSSION**

### 1. Pre-sequence Test

#### a. Descriptive Statistics Test

The researcher did the descriptive statistics test to know the characteristics of data. The comparison between posttest score at experimental class and control class could be seen on the table below:

**Table 1.**  
**Comparison between Posttest Score at Experimental Class and**  
**Control Class**

	N	Minimum	Maximum	Mean	l. Deviation	Variance
Posttest_Ex	30	68	90	75.87	6.219	38.671
Posttest_C	30	60	82	71.50	6.725	45.224
Valid N (listwise)	30					

Based on the table above, it can be seen that the number of the students of each class was 30 students. The experimental class was XI AP1 (30) and the control class was XI AP2 (30). The mean score of the experimental class was 75.87 while for the control class was 71.50. The lowest score of the experimental class was 68 while the highest one was 90. For the control class, the lowest score was 60 and the highest score was 82. It can be concluded that there are significant differences score between experimental class and control class, but the researcher should prove it by t-test which will be conducted at the next sub-chapter.

b. Normality Test

The aim of this test was to know whether the data came from the normal distribution or not. To normality test using the Kolmogorov Smirnov from the SPSS and the data determined by the table below:

**Table 2.**

**Tests of Normality**

	Class	Kolmogorov-Smirnov <sup>a</sup>		
		Statistic	df	Sig.
test	1	.115	30	.200*
	2	.129	30	.200*
sttest	Experiment	.161	30	.047
	Control	.132	30	.193

From the data of the table above, it can be concluded that pretest and posttest from experimental and control class is Normal because the score of the sig. > 0.05.

c. Homogeneity Test

The aim of homogeneity test was to get the assumption that sample of research came from the same condition or homogenous. The researcher used Levene Statistic as follow:

**Table 3.**

**Homogeneity Test of Pretest and Posttest Score**

		vene Statistic	df1	df2	Sig.
test_Score	sed on Mean	2.477	1	58	.121
	sed on Median	1.844	1	58	.180

	sed on Median and with adjusted df	1.844	1	52.891	.180
		2.411	1	58	.126
Posttest	sed on trimmed mean				
	sed on Mean	1.067	1	58	.306
	sed on Median	.822	1	58	.368
	sed on Median and with adjusted df	.822	1	56.289	.369
	sed on trimmed mean	1.049	1	58	.310

No	Variable	p-value	$\alpha$	Note
1.	Both sample	0.121	0.05	p-value > $\alpha$ =
2.	(Pretest)	0.306	0.05	Homogen
	Both sample (Prosttest)			

Based on the results of homogeneity testing it can be seen that the significance value or p value is  $0.121 > 0.05$  for pretest and  $0.306 > 0.05$  for posttest so the data has homogeneous variance.

d. Hypothesis Test

To find out the differences of the students' scores which used the discovery learning and the students scores which used lecturing method in learning procedure text, the researcher used the t-test formula and the result it can be seen on the table below:

**Table 4.**  
**Paired Samples Test**

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	5% Confidence Interval of the Difference				
				Lower	Upper			
Experimental_Class - Control_Class	4.367	7.950	1.452	1.398	7.335	3.008	29	.005

Based on the calculation, it can be seen that the  $t_{\text{observation}}$  is higher than the  $t_{\text{table}}$  ( $3.008 > 0.005$ ), thus the null hypothesis ( $H_0$ ) is rejected. It means that there is significant difference between students' scores taught by using discovery learning and lecturing method.

**DISCUSSION**

Based on the calculation above, the researcher concluded that discovery learning has a significant effect to students' writing procedure text at SMK

Negeri 1 Tanjungpinang. This result can be proved from the differences between students' scores which were taught by discovery learning and lecturing. The posttest mean score of the experimental class was 75.87 while the posttest score of the control class was 71.50. The mean score of the experimental class was higher than the mean score of the control class. It means that there is a significant effect of the Jengket game through students' speaking skill at SMP Negeri 10 Tanjungpinang.

These findings can be proved by the theories from Sani (2014) that discovery learning is helping the students to improve and gain the skills and cognitive process. The effort of discovery is the key in this process, someone dependent from how is the way to learn. The second is helping the students to improve and gain the skills and cognitive process. The effort of discovery is the key in this process, someone dependent from how is the way to learn. The third is getting the knowledge from this model is very individual and effective because this is reinforcing the meaning, memory, and transfer. Make the students' happy also as the excess of discovery learning because of growing the feeling investigate and success. This model enables the students' development with fast and appropriately along the celerity itself. Then, causing the students to direct the activity of learning with involve their ideas and motivations.

This model can help the students to strengthen the concept his self, because of getting the confidence in working together and also the students is a center and the teacher working together with the students to explain the ideas. To help the students to disappeared the hesitancy cause directly to the fact and then the students can understanding the concept and the idea. To help and change the

memory and transfer to the situation process of learning. Push the students to think and work based on the initiative itself.

The effect of discovery learning is supported by previous finding which conducted by Hanafi (2015). He tried to find the effect of discovery learning models on students' listening outcome in the 2nd semester of 10th grade 5th science class at public high school. The result showed that the implementation of discovery learning with three phases of listening can improve students' listening skill along with their social attitude. Since it was about listening skill, the researcher proved that discovery learning was also effective to be applied towards students' writing procedure text.

Based on the researcher's analysis in the field, the students feel enjoy and free to writing procedure text. The students did not afraid of writing English, and to making mistakes. It also increases their motivation to learn because this activity do it by the students itself. It can be concluded that discovery learning has a significant effect towards students' writing procedure text at SMK Negeri 1 Tanjungpinang.

## **CONCLUSION**

Finally, the researcher concludes that using discovery learning in teaching writing procedure text is quite success. It can be seen from the students' posttest scores taught by using discovery learning is higher than the students' posttest scores without using discovery learning. It is a significant difference, and since the value of  $t_o$  is higher than the value of  $t_t$ . Therefore, teaching speaking skill by discovery learning is more effective than without using discovery learning.

Related to the conclusion above, there are some suggestions which can be given as follows:

1. English Teacher

- a. The teacher should choose and appropriate, technique, media, and model in teaching learning process. Teacher also should be creative in developing the teaching learning activities in the classroom.
- b. English teacher should be motivator for the students to increase their interest in learning English subject and give a good atmosphere in the classroom, so the students can feel comfortable and it can reduce the students, stress in learning English.

2. For Other Researchers

It needs an outgoing research because this research is only aimed at finding the significance of Discovery Learning in Teaching Writing Procedure Text at SMKN 1 Tanjungpinang.

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