The Effect of Discovery Learning Method to The Students' Ability Writing Descriptive Text Grade X at SMAN 1 Tanjung Tiram

Fitri Jasmani
Pendidikan Bahasa Inggris, Universitas Asahan, Indonesia
Email: fitrijasmani@yahoo.com

Abstract-This study aimed to determine the effect of discovery learning method to the writing ability of X grade high school students. This research is a quantitative research using experimental method. The population in this study were students of class X SMA NI Tanjung Tiram which totaled 60 students. Determination of the sample used random sampling technique. Based on this technique, class X-A was obtained as an experimental class consisting of 30 students and class X-B as a control class consisting of 30 students. Data collection techniques using tests, namely post-test. The data collection process by assigning students to work on description questions. Before analyzing the data, a normality test was first carried out. The results showed that there was a difference in the ability to write description questions of class students using the discovery learning method, and without using Discovery learning. The difference was shown by the results of the t-test, namely tcount=11.037, ttable 1.706, so the criteria for testing the hypothesis of this study are tcount> ttable, then the hypothesis value (HO) is rejected and the alternative hypothesis (Ha) is accepted. This proves that there is a positive effect of the discovery learning method than without the discovery learning learning method to the writing ability of class X students of SMA NI Tanjung Tiram in the 2022/2023 academic year.

Keywords: Discovery Learning Method, Descriptive Text, Ability in Writing

1. INTRODUCTION

English is one of the subjects of middle school and high school students. In English, there are 4 skills to learn. There is listening, speaking, writing and reading. Writing must be mastered by the student. This study focuses on writing ability. It has been recognized that writing is one of the English skills that English learners must master. Writing, is also considered an indicator of students' success in learning English and their future careers. (Kingston et al.:2002) suggested that students' English learning outcomes were assessed only by productive skills, especially writing ability.

The ability to write can be considered very important, but teaching that writing is important has not been successful. This can be seen in the way students write and their reactions to the writing. et al :2009) refers to the low level of students in terms of structure and vocabulary. The first manifestation is that students are less interested in writing descriptive texts. As a result, students are not able to write descriptive passages in English fluently.

Difficulty of the content of the first category. (Netherlands:2004) revealed that students seem reluctant to write stories because they don't have enough story ideas to write about. His students only had to write a few words each time they were asked to start writing.

The second problem is related to organization Organizational problems have been identified when students are unable to organize their thoughts into coherent sentences in their heads. They can write sentences, but do not know how to arrange them into a series of sentences and how to arrange them.

Divide them into chronological and related paragraphs.2004) is seen in the writing section, most students simply write without paying attention to the consistency of the text. Another difficulty identified relates to mastery of grammar, inability to use tenses and pronouns correctly are two of the main difficulties encountered when learning grammar. When writing stories, most students use the present tense instead of the past tense, and when writing sentences they often use the wrong pronouns. The facts presented above show that students still do not know how to use correct grammar when writing some texts and vocabulary acquisition is the last difficulty that students face when writing.

Therefore, there are many research opportunities available to Class X at SMA Negeri 1 Tanjung Tiram. Most students have difficulty in writing, understanding descriptive text, learning grammar and vocabulary. The teachers of class X at the school still use the traditional method which makes the students tired and their writing ability decline. This descriptive essay will inspire students to think more creatively about what they are doing and write in their own words, using exploratory learning.

2. METHOD

The location of the research was conducted in JL. Rahmadsyah Desa Suka Maju, Kec. Tanjung Tiram, Kab. Batubara Prov. Sumatera Utara. The time of this research will conducted in February-Maret 2023.

According to (Arikunto:2010), the sample is part of the population under study. This means that the sample is part of the population from which survey data is obtained. According to (Arikunto:2015), if the population is less than 100, he takes the total sample as a whole, and if the population is more than 100, he can take 10-15%, 20-25%.

The samples of this study were X-IPA 1 and X-IPA 2, where the Experimental class of X-IPA 1 students will be the Control class and X-IPA 2 students were the control class.

Table 1. Sample of Class X-IPA

No	Class	Number of Students
1	X-IPA 1	36
2	X-IPA 2	36
3	X-IPA 3	36
4	X-IPA 4	36
5	X-IPA 5	36
6	X-IPS 6	36
7	X-IPS 7	36
	Total	252

Sample

According to (Arikunto:2010), the sample is part of the population under study. This means that the sample is part of the population from which survey data is obtained. According to (Arikunto:2015), if the population is less than 100, he takes the total sample as a whole, and if the population is more than 100, he can take 10-15%, 20-25%.

The samples of this study were X-IPA 1 and X-IPA 2, where the Experimental class of X-IPA 1 students will be the Control class and X-IPA 2 students were the control class.

Table 2. Sample of the Study

Group	Treatment	Sample
Experimental group	✓	30
Control group		30

Test

The test that will be used in this study is a test as a tool for this study, which is very useful. This test is used to see how well students understand what they read. This essay test consists of 1 content and is conducted 2 times, both of which are conducted before and after the test. The purpose of the former is to find out a student's basic reading comprehension, and the purpose of the latter is to see if exploratory learning can impact a student's reading comprehension.

Table 3. Scoring Writing

Aspect of Scoring Writing Ability	Score	Criteria
	5	Explanations related to the assigned topic Persuasively support the main idea with concrete ideas. Suitable examples/evidence and/or justification
	4	Relevant to the assigned topic. Generally enough support for the main idea. However, some points are overall too abstract, ambiguous, and remain unsupported.
Development	3	Mostly related to the assigned topic. It has some expertise, good scope, limitations and development, but lacks detail.
	2	This post covers the assigned topic. However, the lack of concrete and good examples/evidence/arguments weakens it.
	1	It has only minor relevance to the assigned topic. The main idea is unclear, with little or no concrete and relevant examples, evidence, or arguments.
	5	It may make the link clearer, but it doesn't affect the communication.
	4	Needs a reread for clarification and stimulation.
Organization	3	Readers can recognize some organization, but there are few or no connection attempts..
	2	Individual ideas may be clear, but they are very difficult to connect.
	1	Lack of organization means that communication is severely hampered.
	5	Uses imprecise or inappropriate words quite often. Insufficient vocabulary may limit the expression of ideas..
	4	Limited vocabulary and many mistakes make it clearly difficult to express ideas. Vocabulary is so limited and misused that readers often have to rely on their own interpretation
Vocabulary	3	The vocabulary is so restrictive that it is almost impossible to understand.
	2	If there are any noticeable errors in grammar or word order, rewrite them.
	1	Vocabulary limitation are so extreme as to make comprehension virtually impossible.
	5	There are errors in grammar and wording, but they do not affect comprehension.
	4	Errors in grammar or word order that require frequent and occasional rereading for full comprehension
Grammar	3	Grammar and word order errors are common. Readers often have to rely on their own interpretation.
	2	Errors in word grammar and word order are so serious that they are virtually impossible to understand. Few (if any) noticeable errors in punctuation or spelling
	1	There may be occasional errors in punctuation and spelling, but they do not affect readability.
	5	Punctuation and spelling mistakes are common, so you'll need to reread it from time to time to fully understand it.
	4	There may be occasional errors in punctuation and spelling, but they do not affect readability.
Mechanics	3	Spelling and punctuation errors are common, so readers must rely on their own interpretation.
	2	Spelling and punctuation errors are common, so readers must rely on their own interpretation.
	1	Communication is severely hampered by a severe lack of organization.

(Ghes (1989) and Jacob (1981) asmodified by Widiary (2010)

Table 4. Validity and Reability of the PreTes Experimental

Correlations (PreTest-Experimental)

		Q1	Q2	Q3	Q4	Q5	TOTAL
Q1	Pearson Correlation	1	.303	.168	.051	.027	.383*
	Sig. (2-tailed)		.103	.374	.789	.887	.049
	N	30	30	30	30	30	30
Q2	Pearson Correlation	.303	1	.651**	.514**	.226	.797**
	Sig. (2-tailed)	.103		.000	.004	.230	.000
	N	30	30	30	30	30	30
Q3	Pearson Correlation	.168	.651**	1	.657**	.300	.886**
	Sig. (2-tailed)	.374	.000		.000	.108	.000
	N	30	30	30	30	30	30
Q4	Pearson Correlation	.051	.514**	.657**	1	.242	.756**
	Sig. (2-tailed)	.789	.004	.000		.197	.000
	N	30	30	30	30	30	30
Q5	Pearson Correlation	.027	.226	.300	.242	1	.524**
	Sig. (2-tailed)	.887	.230	.108	.197		.003
	N	30	30	30	30	30	30
TOTAL	Pearson Correlation	.363*	.797**	.886**	.756**	.524**	1
	Sig. (2-tailed)	.049	.000	.000	.000	.003	
	N	30	30	30	30	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Reliability Statistics

Cronbach's Alpha	N of Items
.611	5

Based on the table above or testing the validity of the items, all items tested are valid because the Pearson correlation of each item is greater than the Table The value of Table with a sample of 30 with df n-2 (30-2-28) ttable- 0.306, meaning that if tcount 0.306 then the item is considered valid. However, if rcount <0.306 then the item is considered invalid.
The output above showed the value of the alpha coefficient, which is 0.61,the instrument is declared to have high reliability. the instrument is declared to have high reliability.

Normality Test
Test the normality of descriptive paragraph writing results in the written test and the written test in the control and experimental groups in this study using the Liliefors test. Data from the results of the normality test using SPSS version 16 are shown in the table below.

Table 5. The normality Test of Pretest and Posttest Scores in the Experimental and Control Class

Tests of Normality

	Class	Kolmogorov-Smirnov[a]	Shapiro-Wilk

		Statistic	df	Sig.	Statistic	df	Sig.
Writting_Pretest	PreTest Experimental	.139	30	.200*	.911	30	.016
Writting_PosttTest	PostTest Experimental	.160	30	.200*	.896	30	.017
	PreTest Control	.187	30	.200*	.910	30	.015
	PostTest Control	.128	30	.200*	.943	30	.112
a. Lilliefors Significance Correction							
*. This is a lower bound of the true significance.							

The data is normally distributed if the significance value (Sig.) in the Kolmogorov-Smirnov column is more than 0.05. According to the output or table of pre-test and post-test experimental and control above, the data in this study are normally distributed normal too.

Hypothesis Test (final Analysis)
After calculated the data of normality test and, the final test was hypothesis test to know the effect of Discovery Learning Method on the students' writing ability. It used with t-test formula as follows:

Table 6. T-Test Formula

Independent Samples 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
Writing_Posttes	Equal variances assumed	.153	.697	11.037	58	.000	21.933	1.987	17.955	25.911
	Equal variances not assumed			11.037	58.000	.000	21.933	1.987	17.955	25.911

Based on the table above thitung =11.037. So, thitung > ttable or 2.001 and sig. 0.000 < 0.05 H0 is rejected and Ha accepted the hypotesis there is sig. Effect discovery learning method to the students' ability writing descrptive text.

3. RESULTS

This study was carried out to determine the effectiveness of the discovery learning method on the writing ability of students between experimental and control classes in English learning materials for grade X SMA No.1 Tanjung Tiram in descriptive text. As the experimental class is class X IPA-I and class X IPA-II is the control class. The difference in treatment between the experimental class and the control class lies in the use of learning methods. Experimental class and control class in the use of learning methods. The exploratory learning method is applied to the experimental class, not the exploratory learning method to the control class. Related to what was tested in this study, it was students' writing ability. The type of tool used to test students' writing ability in the form of a written test. Before being used, the tool was first interrogated and examined by item analysis. Some of the statistical tests used are validity and reliability tests. Materials that meet these criteria can be used as research tools. After the test items, all items meet the criteria as valid and reliable instruments. The instrument was then used as a data collection tool on the writing ability of students who used these 5 items. After that, the research is conducted using the discovery learning method, and then the results of the research can be known. Research results It is known that the average learning result of students applying the discovery method is 85.76. While the average academic achievement of students in classes without the discovery learning model

is 56.03. The average value of the learning results proves that the class applies exploratory teaching method, the higher learning model of the class does not apply exploratory teaching method. The average learning results of the two classes can be compared in Figure 1.
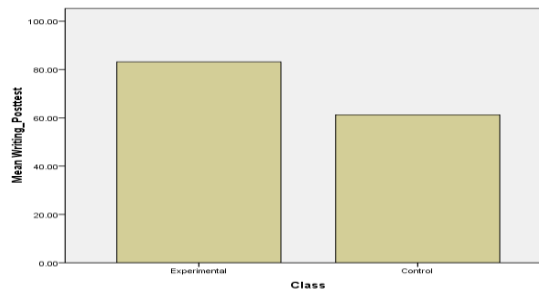
Figure 1. The average learning outcomes of the experimental and control classes comparison

The graph in Figure 1 above shows that the average value of learning outcomes of the experimental class applying the discovery learning method is higher than that of the control class. After statistical analysis by calculating t-test using the program SPSS version 16, the obtained result is tcount > ttable, ie tcount = 11,037 and ttable = 1.701, then 11.037 > 1.701. This means that $H0$ is rejected and Ha has accepted the hypothesis of having sig.. This means that there is a significant difference in the value of student learning outcomes between classes applying the learning model. exploratory and non-exploratory learning classes. exploratory learning model. Thus, the exploratory learning model is effective and meaningful for the ability to write descriptive passages in English. The discovery learning method is one of the learning methods used to improve the writing ability of students. The Discovery Learning Method is included in the Collaborative Learning Approach. In this learning model, learning problems often arise in daily life so that students can easily apply this learning model.

From the results and discussion on the effect of exploratory learning method, this study found that students' writing ability is better after being processed (exploratory learning method) in the process of teaching and learning English. It shows that from the average score before the test is 56.0 to 85.7 points after the test, that is, after applying the discovery learning method in the experimental class, there has been an increase of 29.87%. Their feedback is also very good when they give opinions on other friends' posts. This is evident in their speech and their confidence in student participation. It has been found that teaching writing according to the discovery learning model can improve students' writing ability during the learning process.

5. CONCLUSIONS

Based on the discussion above, the authors use several suggestions for consideration of future progress. There are several suggestions that can be written based on this research:

With the existence of several limitations in this study those who will conduct research can improve the quality of the media so that it can be used for the long term, so that the results of further research will be better. It is hoped that the next researcher will conduct further similar research with the discovery learning method to be precise for class X, and take a wider research area, more samples, so that more optimal results can be found and can be generalized to a wider area.

REFERENCES

Anselm, S., Juliet, C., (1990), Basics Of Qualitative Research, Grounded Theory Procedures And Techniques, Newbury Park, SAGE Publication

Bruce, S., Bita, B., Kristie, A., (2008), The Effects of Sentence Combining Instruction on The Writing of Fourth Grade Student Writing Difficulties, The Journal of Special Education 42 (2), 79-90

Daniel, P., (2003), Progression Analysis: Investigating Writing Strategies at The Workplace, Journal of Pragmatics 35 (6), 907-921

Di Zou., (2007), Vocabulary Acquisition Through Cloze Exercises, Sentence Writing and Composition Writing Extending The Evaluation Component of The Involvement Load Hypothesis, Language Teaching Research 21

Paul, L., (1991), Error : Some Problems of Definition, Identification, and Distinction, Applied Linguistics 12 (2), 180-196

Richard, H.H., (1988), Error and Change in College Student Writing, Written Communication 5 (4), 479-499

Rizki, A., Sofyan, A.G., Rosnani, S., (2014), A Study of Error Analysis From Students Sentences in Writing, Studies in English Language and Education 1 (2), 81-95

Tira, N.F., (2020), Error Analysis Found in Students Writing Composition in Simple Past Tense of Recount Text, English Franca : Academic Journal of English Language and Education 4 (2), 141-160