THE EFFECTIVENESS OF DISCOVERY LEARNING METHOD IN TEACHING WRITING AT MAN 1 PASAMAN

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Abstract

This study aims to determine the effectiveness of using the Discovery Learning Method in teaching writing MAN 1 Pasaman class XII science. This research is a pre experimental research using a pre-test and post-test design. The data sources of this study were students of class XII IPA 1 MAN 1 Pasaman who took English subjects, which consisted of 1 class with 30 students. The data sources of this research are the test of writing news text and procedure text. The researcher conducted an analysis using a paired T-Test using SPSS 25. From the analysis data, the value of .Sig. (2-tailed) is 0.000 < 0.05, and the T-count value of news item through pre-test and post-test is 2.388 > T table 2.045 and value of procedure text through pre-test and post-test is 2.411 > 2.045. So it can be concluded that there is an effect of using the Discovery Learning method in the writing learning process.
Keyword *: Discovery learning, news item text, procedure text*

ABTRAK

Penelitian ini bertujuan untuk memgetahui efektivitas penggunaan Metode Discovery Learning dalam pengajaran menulis di MAN 1 Pasaman kelas XII IPA. Penelitian ini merupakan penelitian pre-eksperimen dengan menggunakan desain pretest-post-test Desain. Sumber data dari penelitian ini yaitu siswa kelas XII IPA 1 Pasaman yang mengikuti mata pelajaran Bahasa Inggris, yang terdiri dari 1 kelas dengan jumlah siswa 30 orang. Sumber data dari penelitian ini yaitu test menulis teks berita dan teks prosedur. Peneliti melakukan analisis menggunakan uji T-Test dengan menggunakan SPSS 25. Dari data analisis diperoleh nilai .Sig. (2-tailed) adalah sebesar 0.000 < 0,05, dan nilai T- hitung news item text melalui pretest dan pos-test 2.388> T tabel 2.04 dan nilai T-hitung procedure text melalui pre-test dan post-test 2.411> 2.045. Sehingga dapat disimpulkan bahwa terdapat pengaruh penggunaan metode Discovery Learning dalam proses pembelajaran menulis.
Kata Kunci *: Discovery learning, news item text, procedure text.*

1. INTRODUCTION

Writing is part of important skills in English besides listening, reading, and speaking. Writing is the skill that students create from their mind in real-life feelings. It is one of the important of every day for students to access, evaluate, and develop their opinion to each other. The students must be honest about how much ownership he or she can claim over the ideas formed, find the answer, and the opinions expressed (Bristol Business School, 2006). Therefore, writing is a process of expressing ideas by adding word into good arrangement from the written form. Furthermore, according Ruswinarsih (2015), there are some reasons that writing is absolutely important. First, writing is one of the communication ways to communicate with other people in the world. Second, writing is required in almost in part jobs. The last, writing can be assumed, as one of the characteristics of educated people. Balim in (Feriyanti, 2014) "Discovery learning is a method that encourages students to arrive at a conclusion based upon their activities and observations (research)." It means that students become problem solvers who collecting, compare, analyzing the information, and make a conclusion about it. Then, (Hanafi, 2016) defines the discovery learning as a method that encourages students to ask questions and formulate their tentative answers, and deduce general principles from practical examples or experiences.

Difficulties or problems in understanding the difficulties experienced by students in teaching writing, especially a material news item and procedure text were like they were confused about how to start writing, because they lacked the vocabulary and they did not know how to make correct sentences, especially in accordance with the general structure. Based on the initial observations of the researcher who took PPL, the researcher saw the teaching and learning process in which the teacher explained the material to students and then gave them assignments. Thus, the desire to write in the learning process which is shown when they have to write a news item text and procedure text is reduced, they do not do it but instead talk to each other. In addition, they have a busy school schedule, several activities must be divided so that when learning English in class, they feel bored and look or even just nod at what the teacher says.

According to the problem above, the researcher offers a solution to solve the problem by using the discovery learning method for class activities. It is very suitable for solving problems, Discovery learning method has a method in which the learning process is carried out by seeking information research (Sobari and Husnussalam,2019). Thus discovery learning method can make the students actively in the learning process, the activities will
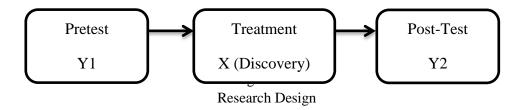
be more meaningful, students acquire investigative and reflective skills that can be generalized and applied in other contexts, building on students' prior knowledge and experience (Bruner, 2018).

2. METHODS

This study uses quantitative research using a pre-test post test group design. (Ary, D., Jacobs, L. C., & Sorensen, 2010) a pretes-test post-test group design is an experiment involving only one group and no comparison or control group. In a study with a pretest post test group design, this design used a non-random selection of subjects and involved one group, there was no comparison group or control group.

In research with this design, (Sugiyono, 2013) the implementation of the study involved one group, then the research in the initial experiment group the was given an initial test or pre-test, next the group was given treatment or experiment, after that the group was given a final test or post-test. To analyze the results of empirical data, the results of the initial and final tests are compared with statistical hypothesis testing and if the results are higher post-test, it can be concluded that the treatment given is effective, and if the pre-test value is higher than post-test, it can conclude that treatment applied ineffectively. The design is illustrated as follow:

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┌─────────────┐      ┌──────────────┐      ┌─────────────┐
│   Pretest   │ ───▶ │  Treatment   │ ───▶ │  Post-Test  │
│     Y1      │      │ X (Discovery)│      │     Y2      │
└─────────────┘      └──────────────┘      └─────────────┘
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Research Design

The important step in conducting the research was selecting the sample. The sample is a part of the population which is used to generalize the finding due to the researchers' limitation of time, capability, etc to take all members of a population. (Ary, et.al:2010) state the sample is the small group that is observed. This means that several students were the subject of research. In this study, to determine the sample, the researcher took a cluster, one group was taken from a group that was assumed to be at the same level based on the MID Semester 1 test scores which were used as the basis for determining that their abilities were the same. The instrument of the research is a tool that be used by the researcher in collecting data. It means any research needs an instrument for gathering data. The

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instrument that used in this research is a test. According to (Sugiyono, 2013) a test is a set of stimuli presented to an individual to elicit responses based on which a numerical score can be assigned. The data sources of this research are the test of writing news text and procedure text. The researcher conducted an analysis using a paired T-Test using SPSS 25. The formula of paired sample t-test is as follows (Sugiono, 2013):

$$t : \frac{D}{\sqrt{\dfrac{\sum D^2 - \dfrac{(\sum D)^2}{N}}{(N-1)}}}$$

Where   :

$t = t_{hitung}$: T-test

D: The difference between the   matched pairs

$\sum D^2$: The mean of sample
N : The number of the students of experimental group

3. RESULTS AND DISCUSSION

This research was conducted at MAN 1 Pasaman which is located on Jln. Prof. Hamka West Sumatra Province from 10 – 5 February 2022. This research was conducted with three stages, namely the preparation stage, the implementation stage, and the reporting stage. The implementation of this quantitative experimental research with Pre-test post-test group design involves 1 experiment group. Then, the treatment will be carried out 8 (eight) times. The experimental group using the discovery learning method of 30 students was held every 2 times a week on Mondays and Thursdays, 2 hours of lessons with a time allocation of 2 x 40 minutes (80 minutes) starting at 07.00-08.20 WIB and 10.30-11.45 WIB with News Item Text and Procedure Text materials. In this study, the author acts as an observer. Activities carried out at the planning stage of this research are preparing a syllabus, Learning Implementation Plan (RPP), making assessment guidelines, preparing materials that are by following per under the competencies to be taught, and making learning media.

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The first meeting in the experimental group was held on Monday, January 10th, 2022 at 07.00 – 08.20 WIB, the second meeting on Thursday, January 13th, 2022 at 10.30-11.45 WIB, the third meeting on Monday, January 17th, 2022 at 07.00 – 08.20, the fourth meeting on Thursday, January, 20th 2022 at 10.30-11.45 WIB, the fifth meeting on Monday, January 24th 2022 at 07.00 – 08.20 WIB, the sixth meeting on Thursday, 27th 2022 at 10.30-11.45 WIB and the seventh meeting on Monday, January 31th 2022 at 07.00 – 08.20 WIB and the last meeting on Thursday, February, 3rd 2022 at 10.30-11.45 WIB. Then on Saturday, February 5th 2022 at 10.30-11.45 WIB was helped post-test. After that, the final score of post-test data has been found. The researcher compare the total of a differences in the data used paired sample t-test using SPSS 25.

Data Analysis
Based on the description of the research data above, the researchers tested the effectiveness of the Discovery Learning method in writing skills and tested using a hypothesis test, namely the independent sample t-test. This test is used to make a decision whether the hypothesis is accepted or rejected.

The ability to write through pre-test and pos-test in learning news item texts of students who are taught using the Discovery Learning method.
Based on the results of hypothesis testing using the independent sample t-test, research findings were found that there was a significant ability to write through pre-test and pos-test in learning news item texts of students who are taught using the Discovery Learning method. t_{count} = 2.388 which is bigger than the t_{table} coefficient = 2.045.
To strengthen the results of this calculation, it is then tested using an independent sample-test with the help of IBM for SPSS software version 25.

Group Statistics				
News Item Text	N	Mean	Std. Dev.	Std. Error Mean
Pre-test	30	79.5000	4,30000	1.01839
Post-test	30	84,5000	4.30000	.89282

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Based on the results of calculations using IBM for SPSS version 25, it strengthens the results of the previous calculation which states that there is a significant the ability to write through pre-test and post-test in learning news item of students taught with Discovery Learning method, as evidenced by the coefficient sig = 0.000 < 0.05 and the coefficient of t_{count} = 2.388 > t_{table} = 2.045.

The ability to write through pre-test and post-test procedure text of students who are taught using the Discovery learning method.

Based on the results of hypothesis testing using the independent sample t-test test, it was found that there was a significant the ability to write through pre-test and post-test procedure text of students who are taught using the Discovery learning method., this finding was evidenced by the coefficient t_{count} = 2.411 which is bigger than the coefficient t_{table} = 2.045. To strengthen the results of this calculation, it is then tested using an independent samplet-test with the help of IBM for SPSS software version 25.

Group Statistics				
Procedure Text	N	Mean	Std. Dev.	Std. Error Mean
Pre-test	30	79.5000	4,10000	.83954
Post-test	30	83.6000	4.10000	.79271

Based on the results of calculations using IBM for SPSS software version 25, it strengthens the results of previous calculations which state that there is a significant difference in the ability to write procedure text for groups of students taught with PJBL and groups of students taught with Discovery, as evidenced by the coefficient sig = 0.000 < 0.05 and the coefficient of t_{count} = 2.411 > t_{table} = 2.045.

Hypothesis Testing

Related to the data above, Discovery Learning is effective in teaching writing news item text and procedure text. Thus, the value of News Item Text through pre-test and Post-test t_{count} is obtained 2.388 > t_{table} 2.045, and the value of Procedure Text through pre-test and Post-test t_{count} is obtained 2.411 > t_{table} 2.045. It can be concluded that H_0 is rejected and H_1 is accepted.

Findings

Based on the researcher's hypothesis above, the researcher found several findings. The researcher's first finding was to find the pre-test and post-test scores. In that finding, the researcher found that the average pre-test score for the news items text material was 79,5 and post-test news item text was 84,5. Then the average pre-test score for procedure text material was 79,5 and post-test was 83,6. After the researcher found the average pre-test and post-test score, the researcher calculated the difference between the two scores, then the researcher got the difference in score of 9,6. Based on the SPSS t-test table obtained the value of Sig. (2-tails) 0.000 < 0.05 and the coefficient of value news item through pre-test and post-test t_{count} = 2.388 > t_{table} = 2.045 and value of procedure text through pre-test and post-test t_{count} = 2.411 > t_{table} = 2.045. So H0 is not accepted and H1 is accepted. So it can be concluded that the use of the Discovery Learning Method in learning to write in the learning process has been effective.

4. CONCLUSION

In this study, the researchers concluded that the use of discovery learning methods can make students work actively in the learning process. In addition, students are more creative and innovative in creating ideas, especially to create projects that can improve student learning outcomes. So that the discovery learning method is effectively used in the writing learning process.

5. ACKNOWLEDGMENTS

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