

The Effect of Scientific Approach toward the Descriptive Writing Ability of the Class 5th Grade Student of Gracia Sustain Elementary School Medan

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Abstract- Scientific approach is intended to provide insight to students in recognizing, understanding the various materials using a scientific approach, that information can come from anywhere, at any time, do not rely on the information in the direction of the teacher. This study aimed to investigate the difference of student achievement in writing descriptive essay between students who received scientific approach and expository approach. Samples of this research consisted of 57 students at 5th grade students in Gracia Sustain Medan, 29 students from V-A and 28 students from V-B. This study was conducted at the first semester of the academic year 2017/ 2018. The sample was selected by using random sampling technique and they were assigned to two sections : the first section was Class V-B containing 28 students and representing the experimental group and was taught by using the scientific approach and the second section represented the control group, class V-A containing 29 students and was taught by using expository approach. Data collection was held by using instrument of descriptive writing test. The mean score of post-test between the experimental and control group significant ($0.000 < 0.05$) Pre-test (mean = 41.07, s.d. = 16.407). Post-test (mean=66.64, s.d. = 9.089). The findings showed that student achievement in writing descriptive essay among student who were taught using scientific approach has significant differences than the student achievement in writing descriptive essay among student who received expository approach.

Keywords: *scientific approach, descriptive writing*

INTRODUCTION

Indonesian language competency has an important role for education in Indonesia. Indonesian language is an official language which is used in the learning process in Indonesia. Learning Indonesian Language has particular purpose i.e. be able to master the four aspects of language skills, they are listening, speaking, reading and writing skills. At the elementary level, writing skills especially in descriptive writing cannot be separated in the process of thinking because when someone wants to write a description of something, she has to have knowledge about the thing she wants to describe

on. In this case, the knowledge that the elementary school students have in their process of thinking is the ability to express their idea, notion, or even to produce a writing product. For the main characteristic of writing is to produce a writing text as its product, writing skills especially in descriptive writing is considered as a difficult lesson.

Descriptive writing provides an illustration of people, places, events, situations, thoughts, and feelings. Description presents sensory information that makes writing come alive. It expresses an experience that the reader can actively participate in by using imagination. Descriptive writing skills have been taught in early elementary school level, but the student writing outcomes indicate there was some problems in writing learning. Zulkarnaini (2011:145) revealed some of the problems faced by students towards writing skills learning are as follows: (1) The limitations of using the spelling; (2) The limitation of critical thinking to reorganize the writing content systematically; (3) The writing learning model is not based on student centered learning model.

Descriptive writing is kinds of writing activity to describe a certain condition or a specific object. In learning activity of descriptive writing, students are unable to use Indonesian language in an appropriate language use, they also have some problems in diction use. In addition, students are also lack of attention to the elements which are used in the descriptive essay writing such as the use of vocabularies, sentence structures, spellings and punctuations. In addition, these issues which are impact the low skill of writing descriptive essay.

The findings of the interview with the teachers and students which was held on Friday 27th January 2017 at Gracia Sustain Elementary School in Indonesian language lesson, the writer found that teacher applied the teacher centered learning model that gave student less opportunity to play an active and communicative role, low interest in writing, students were incapable of composing ideas into writing form, the teacher didn't use the innovative learning approach thus the learning

approach can not improve student learning activities primarily in writing learning.

The problem of a low descriptive writing learning outcomes on Indonesian Language subjects need to get serious attention. In this case, the 2013 curriculum has given an easy way in writing description essays. One of the approaches and learning resources that can be used to solve the problem of the low skill in writing in the 2013 curriculum on Indonesian Language subject is by using scientific approach. Kurniasih and Berlin (2014:29), states that the scientific approach is a learning process that is designed in such way that learners actively construct concept, law or principle through some observation stages (to identify) or find a problem, formulate hypotheses, collect data using various techniques, analyze data, draw conclusions, communicating a concept, law or principle founded.

Scientific approach is particularly relevant to the three learning theories, namely the theory of Bruner, Piaget, and Vygotsky's theory. Bruner theory of learning is called discovery learning theory. There are four main things related to learning theories of Bruner (in Carin & Sund, 1975). First, only individuals learn and develop his mind when he uses his mind. Second, by performing the cognitive processes in the discovery process, students will acquire the intellectual thrill and satisfaction is intrinsic rewards *suatau*. Third, the only way that a person can learn the techniques of doing discovery is that it has a chance to do discovery. Fourth, to make the discovery will strengthen memory retention. Four of the above is consistent with the cognitive processes required in learning to use the scientific approach.

Piaget's theory, stating that the study related to the formation and development of the schema (plural *schemata*). The scheme is a cognitive mental structures or structures with which a person is intellectually adapt and coordinate the surrounding environment (Baldwin, 1967). The scheme has never stopped changing, the *schemata* of a child will develop into adults *schemata*. The process that leads to changes in *schemata* called adaptation. The process of formation of this adaptation can be done in two ways: assimilation and accommodation. Assimilation is the cognitive process by which one can integrate stimuli of perception, concepts, laws, principles, or new experiences into existing schemes in mind. Accommodation may include the formation of a new scheme that can match the characteristics of the existing stimulus or modify existing schemes to match the characteristics of the existing stimulus. In the learning necessary to balancing or equilibration between assimilation and accommodation.

Vygotsky, the theory states that learning occurs when students work or study dealing with tasks that have not been studied, but the tasks were still within the range of abilities or tasks that are in a zone of proximal development area is located between the current level of child development are defined as a problem-solving abilities under the guidance of an adult or more capable peers (Nur and Wikandari, 2000:4).

Learning the scientific approach has the following characteristics centered on the student, involves the science process skills in constructing the concept, law or principle and

involves the cognitive processes of potential in stimulating the development of intellect, especially high-level thinking skills of students.

The application of scientific approaches in the learning process involves skills such as observing, classifying, measuring, predicting, explaining, and conclude. In carrying out these processes, teacher assistance is needed. By applying the scientific approach in learning Indonesian language especially on writing aspect will help students to develop their ability in writing. Students need to be encouraged to express their thoughts, writing that they are thinking of, and arrange the thoughts in writing form.

Based on the description above, writer held a research to know the effect of scientific approach toward the descriptive writing skills of the fifth grade student Gracia Sustain Elementary School in Medan. The aims of this research is to know the differences of the descriptive writing ability between students received the scientific approach and the students received the expository approach.

METHOD

This research was held in Gracia Sustain Elementary School at Turi Street No. 139 Medan in the first semester of the academic year 2017/2018. This research employs a quasi-experimental control group design. Design research using 2 x 2 factorial design against the results of the learning abilities of descriptive essay writing. The first group was given preferential treatment and measurement, while the second group that is used as a control group not given the treatment but only do measurements. The first group is a group of experiments. The Group was given scientific approach treatment, while the second group was the control group who received expository approach.

Table 1. Research Design

Group	Pre-test	Treatment	Post-test
Experimental Group	O	X ₁	O ₁
Control Group	O	X ₂	O ₂

Description :

- O = Pre-test Experimental Group / Control Group
- X₁ = Treatment with Scientific Approach
- X₂ = Treatment with Expository Approach,
- O₁ = Post-test Experimental Group (EG)
- O₂ = Post-test Control Group (CG)

For testing the null hypothesis (Ho) was concluded as follows:

- Ho1= There are no significant differences in mean scores on pre-test descriptive writing achievement among the group receive scientific approach and the group received expository approach.
- Ho2 = There are no significant differences in mean score on pretest -posttest descriptive writing achievement among students receive scientific approach.
- Ho3 = There are no significant differences in mean score on pretest -posttest descriptive writing achievement among students receive expository approach.

Ho4 = There are no significant differences in mean score on post-test descriptive writing achievement among the group receive the scientific approach and the group receive expository approach.

RESULT

The Difference in Mean Scores on Pre-Test Descriptive Writing Achievement among the Group Receive Scientific Approach and the Group Receive Expository Approach

Statistical hypothesis testing:

Ho1= There are no significant differences in mean scores on pre-test descriptive writing achievement among the group receive scientific approach and the group received expository approach.

Table 2. The results of pre-test between scientific approach and expository approach

Kelas	N	Mean	Std. Deviation	Significant
Pre-test	29	36.03	14.722	0.007
PostTest	29	41.07	16.540	

Based on the table above Ho1 is accepted, at significant levels $\alpha = 0.05$. This shows the mean score of pre-test between the experimental and the control group is not significant ($0.227 > 0.05$). It can be concluded that there is no difference in pre-test mean score between a group who receive scientific approach (mean = 41.07, s.d. = 16.407) and group receive expository approach (Mean = 36.03, s.d. = 14.722).

The Difference in Mean Scores on Pre-test Post-Test Descriptive Writing Achievement among the Group Receive Scientific Approach

Statistical hypothesis testing:

Ho2 = There are no significant differences in mean score on pretest posttest descriptive writing achievement among students receive scientific approach.

Table 3. The results of pre-test post - test using scientific approach

Group	N	Mean	Std. Deviation	Significant
Pre-test	28	41.07	16.407	0.000
Post-Test	28	66.64	9.089	

Based on the table above, Ho2 is rejected at significant levels $\alpha = 0.05$. This shows the mean score of post-test between the experimental and control group significant ($0.000 < 0.05$) Pre-test (mean = 41.07, s.d. = 16.407). Post-test (mean=66.64, s.d. = 9.089)

The Difference in Mean Scores on Pre-test Post-Test Descriptive Writing Achievement among the Group Receive Expository Approach

Statistical hypothesis testing:

Ho3 = There are no significant differences in mean score on pretest-posttest descriptive writing achievement among students receive expository approach.

Table 4. The results of pre-test post - test using expository approach

Group	N	Mean	Std. Deviation	Significant
Eksperimental	28	41.07	16.407	0.227
Control	29	36.03	14.722	

Based on the table able Ho3 is accepted, at significant levels $\alpha = 0.05$. This shows that there is no significant difference in the mean score of pre-test post-test between student receive expository approach Pre-test (mean = 36.03, s.d. = 14,722) and post-test (mean = 41.07, s.d. = 16,540)

The Difference in Mean Scores on Post-Test Descriptive Writing Achievement among the Group Receive Scientific Approach and the Group Receive Expository Approach

Statistical hypothesis testing:

Ho4 = There are no significant differences in mean score on post-test descriptive writing achievement among the group receive the scientific approach and the group receive expository approach.

Table 5. The results of post-test between scientific approach and expository approach

Group	N	Mean	Std. Deviation	Significant
Eksperimental	28	66.64	9.089	0.000
Control	29	42.79	15.774	

Based on the table above, Ho4 is rejected on a significant level $\alpha = 0.05$. This shows the mean score of post-test between the experimental and control group significant class ($0.000 < 0.05$). It can be concluded that there is a difference in mean score of post-test between a group receive scientific approach (mean = 66.64, s.d. = 9.089) and groupreceive expository approach (mean = 42.79, s.d. 15.744).

CONCLUSIONS

The purpose of this research are to investigate the difference of student achievement in writing descriptive essay between students who received scientific approach and expository approach. The findings showed that student achievement in writing descriptive essay among student who were taught using scientific approach has significant diferences than the student achievement in writing descriptive essay among student who received expository approach. Mean score outcomes of experimental group was greater than the control group. This outcomes proved that scientific approach

has a significant effect for improving student ability in writing descriptive essay.

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