THE INFLUENCE OF SCIENTIFIC APPROACH AND CRITICAL THINKING TOWARDS STUDENTS' WRITING SKILL IN RECOUNT TEXT AT STATE SENIOR HIGH SCHOOL OF SMAN 6 KABUPATEN TANGERANG

Aan Nur Hasanah
Sultan Ageng Tirtayasa University

ABSTRACT

The aims of this research are to investigate the of Scientific Approach and Critical Thinking Towards Students' Writing Skill in Recount Text at State Senior High School of SMAN 6 Kabupaten Tangerang. This study is categorized as quasi experimental research in which to investigate the Influence of Scientific Approach and critical thinking habit toward students' writing skill. The method used in this study is quantitative method with treatment by level 2x2 design. The researcher used test and questionnaire to collect the data. The findings of this study are: (1) There was the difference of writing skill between students who were taught by Scientific Appraoch strategy and those who were taught by Conventional strategy (2) There were interactional influence of teaching strategy (Scientific Approach and Conventional) and Critical thinking toward students' writing skill (3) There was an influence of students' Writing skill who were taught by Scientific Approiach strategy was higher than those who were taught by Conventional strategy for students who had high critical thinking (4) There was the difference of students' writing skill who were taught by Scientific Approach strategy and those who were taught by Conventional strategy for students who had low critical thinking.

Keywords: writing skill, Scientific Approach Strategy, Critical Thinking

INTRODUCTION

Writing and learning to write have always been one of the most complex language skills. According to Nunan (1989) cited by Mardiana (2014:1) agreed that, it is easier to learn to speak than to write no matter if it is a first or second language. Also, there is reason why writing placed at the end or become the forth and thought to be the most difficult skill than any other skills. Hedge (2000:305) said that, adults devote 45% of their energies to listening, 30% to speaking, 16% to reading, and 9% to writing.Therefore, students who learn English as foreign language, sometimes make some mistakes in writing such text and end up creating errors, they think writing is a difficult skill, some students do not do the writing well and the students are not confident on their own writing. Besides, the students do not get more opportunity to write in the class or outside the class so that they are lack of time to practice writing.

There are many methods and techniques used in teaching learning process to overcome the problem. Scientific approach is one of method that can be used to improve student's writing skill. Besides scientific approach, another important thing to

produce a good writing is the use of critical thinking. Several studies have been done to analyze scientific approach, critical thinking and its have influence on different fields and skills among different students at different levels all around the world (Olson,1985; Kurniasih & Sani, 2014; Mc. Peck,1982; Nelson,1994; Paul,1998; Atmarizon, 2016; Zaim, 2017; Indahtriyani, Sada & Sutapa, 2015).

Although there have been so many studies conducted to investigate scientific appraoch and critical thinking in teaching english, only few studies concern in the influence scientific approach and critical thinking in students' writing skill. For the more, the researcher try to research how can scientific approach and critical thinking can influence in the writing skill of the students. Therefore, the researchers title this research **"The Influence of Scientific Approach and Critical Thinking Towards Students' Writing Skill in Recount Text at State Senior High School of SMAN 6 Kabupaten Tangerang".**

THEORETICAL FRAMEWORKS

Definition of Writing Skill

Nunan (2006) explain writing is an extremely complex cognitive activity in which the writer is required to demonstrate control of a number of variables simultaneously, at the sentence level these include control of content, format, sentence structure, vocabulary, punctuation. Oshima & Hogue (1997:2), define writing as a progressive activity. It means that for the first time someone writes something down, they know what they are going to write as they are thinking in their mind. While Boardman (2002:11) states that writing is a continuous process of thinking and organizing, rethinking, and reorganizing. In other words, writing is a powerful tool to organize overwhelming events and make them manageable

Recount Text

According to Hyland (2009) recount is a text that tells about past experiences of event. Often we will want to tell other poeple about something that has happened in our life. We might want to tell about what we did at the weekend. It might be about exciting things that happend when we were on holidays last year. In addition Anderson (2002: 14) recount text is a recount is a text which list and describe past experiences by retelling events in the order in which they happened (chronological order). In addition, Pardiyono (2007:63) says that recount can also be simply defined as a text giving information about activities that happened in the past, in other words, it is used to retell the events. The details in a recount can include what happened, who was involved,

where it took place, when it happened and why it occurred (Nurdiono, 2015). Furthermore, Emilia (2008:17) says that recount can be written in the form of biography, autobiography, newspaper articles about the event, history, letter, journal, or story.

Scientific Appraoch

Scientific approach is defined as the process of finding out information in science, which involves testing the ideas by performing experiments and making decisions based on the result of analysis (Longman, 2014). It means that scientific approach is a body of techniques for investigating phenomena, acquiring new knowledge, and correcting and integrating previous knowledge. Tang et. al (2009) says that scientific approach has the characteristics of "doing science". This approach allows teachers to improve the process of learning by breaking the process down into steps or stages which contains detailed instructions for conducting students learning. Hosnan (2014) state that there are five steps of applying scientific approach in teaching learning process, they are observing, questioning, experimenting, associating, and communicating. From the the steps of doing scientific approach in teaching learning process, it can be seen that by doing scientific approach students are hoped to be actively involved in class activities by integrating skills, attitude, and knowledge.

Critical Thinking

Critical thinking is more than just knowledge acquisition or a collection of processing skills; rather it is the development and continual use of analytical skills (Scriven & Paul, 2004). Overall, educators are concerned about improving critical thinking skills among students in higher education and find it a desirable outcome of undergraduate education (Halpern, 2001; McLean, 2005). In addition Scriven and Paul (2003) explain critical thinking as a process, not an end. They believe that critical thinking is a learned skill; it is methodical, and it is thought out, not random. From the definition described, the researcher can concluded that critical thinking is a process that is focused and clearly used in mental activities such as problem solving, decision making, persuading, analyzing assumptions and do scholarly research. Critical thinking is the ability to argue whether they think it makes sense.

METHODOLOGY

This study, the data was collected from students through their writing skill after giving a treatment. The method used in this study was quantitative method with quasi experimental design. The experiment was treated to two groups, one group was taught by using Scientific Approach method (treatment class) and another group as control class taught without Scientific Approach method (conventional). Experimental design used in this study aimed to investigate the influence of teaching method and critical thiking on students' writing skill. The design was used treatment by level 2x2, it consist of two independent variables and one dependent variable. The first independent variable was teaching method and the second variable was critical thinking, while dependent variable was students' writing skill.

RESULT AND DISCUSSION

The result of ANOVA test then continued to extended test to find out the level of significance among groups significantly (simple effect). In other words, the extended test was performed to find out which group contributes more to be students' writing skill according to the teaching method and the level of critical thinking. The computation of data analysis by using ANOVA test can be seen on the Table 4.12 below:

Table 1 ANOVA Test (2 x 2)
Tests of Between-Subjects Effects

Dependent Variable:Writing

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1652.983[a]	3	550.994	41.629	.000
Intercept	340958.817	1	340958.817	2.576E4	.000
A	1570.817	1	1570.817	118.680	.000
B	79.350	1	79.350	5.995	.018
A * B	2.817	1	2.817	.213	.646
Error	741.200	56	13.236		
Total	343353.000	60			
Corrected Total	2394.183	59			

a. R Squared = .690 (Adjusted R Squared = .674)

Table 2 T-test Table

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
A1B1_ A2B1	Equal variances assumed	7.255	.012	8.013	28	.000	10.66667	1.33119	7.93985	13.39348
	Equal variances not assumed			8.013	22.081	.000	10.66667	1.33119	7.90654	13.42680
A1B2_ A2B2	Equal variances assumed	.178	.676	7.392	28	.000	9.80000	1.32569	7.08444	12.51556
	Equal variances not assumed			7.392	26.571	.000	9.80000	1.32569	7.07785	12.52215

1. Testing the first hypotheses

The students' writing skill that is taught by Scientific Approach method is higher than those who are taught by conventional method

Ho : $\mu A_1 > \mu A_2$

H_1 : $\mu A_1 < \mu A_2$

Based on analysis result in Table 4.12 above, it was obtained if the value of Sig > 0.05, it means that H0 is accepted and H1 is rejected automatically. On the other hand, if the value of Sig < 0.05 it means that H0 is rejected and H1 is accepted automatically.

The computation performed by using SPSS version 20 for windows was found that the value of Sig for teaching method was 0.000 < 0.05 and Fobserved (118.680) > Ftable (3.34). It can be concluded that there was the difference of writing skiil between students who were taught by Scientific Approcah method and those who were taught by Conventional method. In other words, the students' writing skiil was influenced by the use of teaching method.

1. Testing the second hypotheses

There are interaction effect between teaching method and critical thinking toward students' writing skill.

H0 : Int. A X B = 0

H1 : Int. A X B ≠ 0

Based on analysis result in Table 4.12 above, it was obtained if the value of Sig > 0.05, it means that H0 is accepted and H1 is rejected automatically. On the other hand, if the value of Sig < 0.05 it means that H0 is rejected and H1 is accepted automatically.

The computation performed by using SPSS version 20 for windows was found that the value of Sig for teaching method was 0.605 > 0.05 and Fobserved (0.605) < Ftable (3.34).

It can be concluded that there were not interactional influence of teaching method (Scientific Approach and Conventional) and critical thinking toward students' writing skill depend on the level of students' critical thinking. In other words, the students' writing skill is influenced by the use of teaching method and the ability of critical thinking as well. Refer to ANOVA test, the interaction between teaching method and critical thinking toward students' writing skill is positively influenced.

2. Testing the third hypotheses

Students with high critical thinking who are taught by Scientific Approach method is higher than those who are taught by conventional method.

H0 : μA1 B1> μA2 B1

H1 : μA1 B1< μA2 B1

Based on analysis result in Table 4.13 above, it was obtained the value of t-test, it was t_0 (A1B1xA2B1) = 8.013 and p-value = 0.000 < 0.05. It means that H_0 was rejected and H_1 was accepted. In other words, students' writing skill who were taught by Scientific Approach method was higher than those who were taught by Conventional method for students who had high critical thinking. It can be concluded that Scientific Appraoch method was more influence than Conventional method primarily for students with high critical thinking.

3. Testing the fourth hypotheses

Students with low critical thinking who are taught by Scientific Approach method is lower than those who are taught by conventional method.

H_0 : $\mu A_1 B_2 > \mu A_2 B_2$

$H_1 : \mu A_1 B_2 < \mu A_2 B_2$

Based on analysis result in Table 4.13 above, it was obtained the value of t-test, it was t_0 (A1B2xA2B2) = 7.392 and p-value = 0.000 < 0.05. It means that H_0 was rejected and H_1 was accepted. In other words, there was the difference of students' writing skill who were taught by Scientific Approach method and those who were taught by Conventional method for students who had low critical thinking. It can be said that for students with low critical thinking, there was any influence of teaching method both students who were taught by Scientific Approach method and those who were taught by conventional method toward students' writing skill.

Then the data was processed to test about the hypotheses. From the testing of hypotheses, it was gained that:

1. The students' writing skill that is taught by Scientific Approach method is higher than those who are taught by conventional method. Based on analysis result in Table 4.12 above, it was obtained if the value of Sig > 0.05, it means that H0 is accepted and H1 is rejected automatically. On the other hand, if the value of Sig < 0.05 it means that H0 is rejected and H1 is accepted automatically.

   The computation performed by using SPSS version 20 for windows was found that the value of Sig for teaching method was 0.000 < 0.05 and Fobserved (118.680) > Ftable (3.34). It can be concluded that there was the difference of writing skiil between students who were taught by Scientific Approcah method and those who were taught by Conventional method. In other words, the students' writing skill was not influenced by the use of teaching method (Scientific Approach and Conventional are similar) without considering the students' critical thinking. Thus, critical thinking was one of important variable in writing skill. This finding was relevant with study was done by Cholick(2016), it was found that that critical thinking had an effect on writing skill only for the high ability group.

   Operationally, writing skill is measured through a test (writen essay tests) and through the test. Students had to make a recount text based on the level of writing skill they have. Refer to the theoretical review mentioned above; the students' writing skill is influenced by the teaching method used in classroom activity (in this case Scientiic Approach). Based on statistical data obtained, it can be concluded that teaching method (Scientific Approach) brings effect to the

achievement of students' writing skill significantly.

2. There are interaction effect between teaching method and critical thinking toward students' writing skill. Based on analysis result in Table 4.12 above, it was obtained if the value of Sig > 0.05, it means that H0 is accepted and H1 is rejected automatically. On the other hand, if the value of Sig < 0.05 it means that H0 is rejected and H1 is accepted automatically.

   The computation performed by using SPSS version 20 for windows was found that the value of Sig for teaching method was 0.605 > 0.05 and Fobserved (0.605) < Ftable (3.34). It can be concluded that there were not interactional influence of teaching method (Scientific Approach and Conventional) and critical thinking toward students' writing skill depend on the level of students' critical thinking. In other words, the students' writing skill is influenced by the use of teaching method and the ability of critical thinking as well. Refer to ANOVA test, the interaction between teaching method and critical thinking toward students' writing skill is positively influenced. This finding was relevant with study was done by Zaim (2017) about implementation of implementation in recount text toward wrotong skill. The result showed that the higher critical thinking that the students have, the higher the ability the students will be.

   Operationally, writing skill is measured through a test (writen essay tests) and through the test, students had to make a recount text based on the level of writing skill they have. Refer to the theoretical review mentioned above; the students' writing skill is influenced by teaching method used in classroom (Scientific Approach) and the critical thinking. Based on quantitative data obtained, it can be concluded that both teaching method (Scientific Approach) and critical thinking bring effects to the achievement of students' writing skill.

3. Students with high critical thinking who are taught by Scientific Approach method is higher than those who are taught by conventional method. Based on analysis result in Table 4.13 above, it was obtained the value of t-test, it was t_0 (A1B1xA2B1) = 8.013 and p-value = 0.000 < 0.05. It means that H_0 was rejected and H_1 was accepted. In other words, students' writing skill who were taught by

Scientific Approach method was higher than those who were taught by Conventional method for students who had high critical thinking. It can be concluded that Scientific Appraoch method was more influence than Conventional method primarily for students with high critical thinking.

4. Students with low critical thinking who are taught by Scientific Approach method is lower than those who are taught by conventional method. Based on analysis result in Table 4.13 above, it was obtained the value of t-test, it was t_0 (A1B2xA2B2) = 7.392 and p-value = 0.000 < 0.05. It means that H_0 was rejected and H_1 was accepted. In other words, there was the difference of students' writing skill who were taught by Scientific Approach method and those who were taught by Conventional method for students who had low critical thinking. It can be said that for students with low critical thinking, there was any influence of teaching method both students who were taught by Scientific Approach method and those who were taught by conventional method toward students' writing skill.

CONCLUSION

The first, there was the difference of writing skill between students who were taught by Scientific Approach method and those who were taught by Conventional method. In other words, the students' writing skill was influenced by the use of teaching method.

The second, there were interactional influence of teaching method (Scientific Approach method and Conventional) and critical thinking toward students' writing skill. In other words, the students' writing skill was influenced by the use of teaching method depend on the level of students' critical thinking. In fact, students with high critical thinking are more influence to use Scientific Approach method while students with low critical thinking are better to use Conventional method.

The third, there was influence of students' writing skill who were taught by Scientific Approach was higher than those who were taught by Conventional method for students who had high critical thinking. It can be concluded that Scientific Approach method was more influence than Conventional method primarily for students with high critical thinking.

The last, there was the difference of students' writing skill who were taught by Scientific Approach method and those who were taught by Conventional method for students who had low critical thinking. It can be said that for students with low critical thinking, there was influence of teaching method both students who were taught by Scientific Approach and those who were taught by conventional method toward students' writing skill..

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