USING DISCOVERY LEARNING MODEL TO IMPROVE WRITING SKILL ON EXPLANATION TEXT TO THE THIRD SEMESTER OF STUDENTS' ECONOMY FACULTY OF TRIDINANTI UNIVERSITY PALEMBANG

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Abstract

The objective of the study was to find out whether or not there was a significant diffrence of writing skill on explanation text through schoology application between students' economy faculty of tridinanti University Palembang who were taught by using discovery learning model and those who were not. The data were colleted through written test about expalanation text in pretest and posttest. The population of this study was the third semester students' economy faculty of Tridinanti university Palembang, Experimental group consisted of 28 students and control group consisted of 28 students. This study used quasi experimental method. In this study the writers chose two classes as the experimental group and control group. The data were analyzed by using paired sample t-test and independent sample t-test. The result of the data analysis showed that the mean score post-test of experimental group was 67.10 and the mean score post-test of control group was 50.41. The result of paired sample t-test showed that the mean score of experimental group was 29.434 and 17.657 in control group. since the value of t-obtained was higher than the critical value of t-table. It showed that the null hypothesis was rejected and the alternative hypothesis was accpeted. It means that there was was significant different of writing skill students' economy faculty of Tridinanti University Palembang who are taugh by using discovery learning model and those who were not.

Keywords: discovery learning model, writing skill, schoology application

Introduction

Education is very important for humans' life because education gives values that will help and guide humans in enduring their life. In Indonesia, education process use Curriculum KKNI in teaching and learning activities in University. Curriculum KKNI is a basis of teaching learning process, so every teaching learning process has to follow the curriculum.it is the planned interaction of pupils with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives. And also curriculum is one of important element in education system, it is not only the highlight goals of national education, but also the consideration about process to reach the goals. According to Beauchamp (1975:5), a curriculum KKNI is a written document with may contain many ingredients, but basically it is a plan for education of students during their enrollment in given school. Moreover, Glatthorn (2012:4) define curriculum KKNI as plans made for guiding learning in the university. It means that curriculum KKNI is a set of component which has important roles in case of education.

Curriculum KKNI in Indonesia has been revised several times. The goverment instructed to implement this curriculum to the local goverment. In Curriculum KKNI which have four value aspects there are knowledge, attitude, skill and behavior. the teacher should be ready in implementing the curriculum KKNI in teaching and learning activities,

because it has greater influence in supporting the process of the curriculum when implemented. According Ahmad (2016) states that curriculum KKNI is designed to improve the quality of education in Indonesia that can educate the students with knowledge, skill and attitude and there are four basic components of curriculum KKNI; objective of CPL, learning material, learning process and assessment.

Scientific approach in curriculum KKNI is the basic point in teaching and learning process because this approach can made students creative, active in the classroom and able to solved the problem through observation, asking question, doing experiment and discussing conclusion. And also Scientific approach was the way to make and answer scientific questions through observation and experiment. The teacher used scientific approach in teaching and learning process in the classroom that consist of observing, questioning, experimenting, associating and communicating.base on scientific approach there were three kinds of teaching and learning model. They were discovery learning model, problem based learning model and project learning model.

Honsan (2014:282) states that discovery learning model is a model to develop student's learning model actively by doing a research and observing by themselve so that they can remember what they found for long term memory. Then, Dewey and Piaget in Castronova (2013:2) Discovery learning model is an instructional model and focus on active, hands-on learning opportunities for students. There are six step of discovery learning model. They are creating stimulation, identifying problem statement, collecting the data, analyzing the data, verifying the data, and creating conclusion.

English itself was divided into four major skill. They are listening, speaking, reading and writing. The fourth basic skills were taught in a integrate way. Thus speaking and writing were productive skills or ability to produce, listening and reading were receptive skills or ability to comprehend. All of these language skills influence the language ability of the learners. In Indonesia, many students tend to have low ability of using English both oral and written. Especially in writing context where the capability of using right grammar and all language features were more emphasized. Further, Writing is one of the skills in English which plays importantg role in learning language. According to Brown (2004), the ability to write is needed in this global literate condition. Even though, the ability to speak English is often used but the ability to write is still considerably important, especially for students to face the modern era of communication. Unfortunately, many students are not interested in writing because writing is difficult to them. Writing is still considered a difficult skill because it involves more mental and physical effort than speaking (Fairbairn and Winch, 2011). Students' mental and physics should already prepared before starting to write, because the steps of writing are complex and take more time than speaking.

The Concept of Writing Skill

According to Brown (2004) the ability to write is needed in this global literate condition. It means that people need to write well in order to face global era communication. However, writing is considered as a complex skill and difficult to be mastered by the students. According to Brown (2004), writing is regarded as the most difficult skill for foreign language learners because it involves several components which

need to be considered while the learners are writing, such as content, organization, vocabulary, language use and punctuation. Moreover, some experts have stated the concept of writing. Ploeger (2000, p. xiii) says writing is the way we express our ideas fully, clearly, in an organized and effective manner. It can be assumed that writing is a way of discovering what we know and feel about something and communicating that knowledge to the readers.

Types of Writing Performance

According to Brown (2004) there are four categories of writing performance that capture in the range of writing production. They are as follows:

1. Imitative
   In this category students are trying to master the mechanics of writing. It is very essential because to produce written language students must attain skills in the fundamental, basic tasks of writing letter, words, punctuation, and very brief sentences.
2. Intensive
   In this category, students focus in producing appropriate vocabulary within a context, and correct grammatical features up to the length of a sentence.
3. Responsive
   In this writing category, students have mastered the fundamentals of sentence-level grammar and focus on the discourse conventions that will achieve the objectives of written text. This level focused at the discourse level with a strong emphasis on context and meaning.
4. Extensive
   In this category students focus on achieving a purpose, organizing and developing ideas logically, using details to support or illustrate ideas and in many cases, engaging in the process of multiple drafts to achieve a final product.

The Process of Writing

According to Langan (2008, p. 8) "Writing is, in fact, a process. It is done not in one easy step but in a series of steps, and seldom at one sitting". It can be assumed that writing is not easy, writers should pass the complex steps of writing and take a long time make it is done. Richards & Renandya (2002) mentions that there are five writing stages of writing process namely planning, drafting, revising, editing and post-writing.

1. Planning (Pre - Writing)
   Pre-writing is any activity in the classroom that encourages writers to write. It stimulates thoughts for geting started. In this stage, writers can generate ideas by using WH-Questions, and brainstorming. According to Bailey (2011), there are three steps in the planning process: 1). Analyse the title wording and decide what is required, 2). Brainstorm the topic to focus your idea, and 3). Prepare an outline using your preferred method (p. 36).
2. Drafting
   At this stage, writers write down all their ideas without focus on the fluency of writing and are not consider with the grammatical accuracy or the neatness of the draft.
3. Revising
   At this stage, writers revise and modify their draft by rearangging, adding, or deleting

information of the global content and the organisation of the ideas. So that, writers' intents are made clearer writing product to the reader.

4. Editing
   At this stage, writers are engaged in tidying up their writing. They check their errors such as in content, organization, vocabulary, language use and punctuation. Then they improve it into a good piece of writing.
5. Post –writing
   This is the last stage of writing process. In this stage, the writing product can be published or just submitted to the teacher.

Concept of Explanation Text

An explanation is a type of text that gives explanation about how a phenomenon or why something in the world happens. It is more about action rather than things. Technical and scientific forms are involved in explanation text. Knapp and Watkins (2005) said that an explanation text has two mains orientation: to explain why and to explain how. According to Xueqian (2008), an explanation text is aimed at explaining how and why something works in a particular way and why something happen.

Refnaldi (2010) says that explanation genre has the function as a factual text to explain the processes in the evolution of natural phenomena. In addition, explanations are more about processes and things. An explanation text is often found in science and social studies. The process of explaining is used to logically sequence the way and that we and our environment physically function, as well as understanding and interpreting why cultural and intellectual ideas and concepts prevail. An explanation text provides the learners an understanding about the world and how it operates. There are two main orientations of an explanation text: explain how something happens and explain why something happens.

The Concept of Discovery Learning Model

According to Van Joolingen (1999:385) discovery learning is a type of learning where learners construct their own knowledge by experimenting with a domain and inferring rules from the results of these experiments. Moreover Bruner (1996) add that discovery learning model is a technique of inquiry based learning and is considered a constructivist based approach to education. Furthermore, piaget (2009) explain that discovery learning model is a method of teaching in which students are not directly presented with a target grammatical structure or rule. Instead , students are given content in which the target structure is used. Students then discover the grammatical rule or figure out the pattern for themselves, discovery learning model does this because it gives learners the opportunity to seekinformation that satisfies their natural curiosity and it gives students an opportunity to explore their desires and therefore create a more engaging learning environment for themselves.

Methodology

Quasi-experimental method with pretest-posttest was used in this study. The population of this study was the students' economy faculty of second semester in Tridinanti University Palembang as the population with the total number of 82 students. There were three classes. the writers used purposive sampling in this research, the sample students of this study was taken from RP3B class and RP3D class that consist

56 students. In this study the writers chose RP3B class as experimental group and RP3D class as control group. Writing skill test was used to collect the data. The writers also used paired sample t-test to compare the average of two variables in one group. For analyzing the data, the writers used independent sample t-test.

Result and Discussion

In this section, the writers highlighted the result of the pretest and posttest from experimental group and control group that was given to the students' economy faculty of second semester in Tridinanti University Palembang..The results of pretest and posttest in the experimental group were drawn in table 1 below:

Table 1. The Score Distribution in Experimental Group

Score	Category	Pre-test		Post-test	
		Frequency	**Percentage**	**Frequency**	**Percentage**
86-100	Excellent	0	0.0%	-	0%
71-85	Good	0	0.0%	18	64%
56-70	Average	1	4%	10	36%
41-55	Poor	14	50%	-	0%
0-40	Very poor	13	46%	-	0%
	Total	36	100%	28	100%

Based on the level of students' achievement in pre-test result, it was found that 0% (zero students) were in a good level, 4% (1 student) were in an average level, and 50% (14 students) Based on the level of students' achievement in pre-test result, it was found that 0% (zero students) were in a good level, 4% (1 student) were in an average level, and 50% (14 students) . Were in a poor level. After that, in post-test result, it was found that 64% (18 students) were in a good level, 36 % (10 students) were in average level. Were in a poor level. After that, in post-test result, it was found that 64% (18 students) were in a good level, 36 % (10 students) were in average level.Then, the results of pretest and posttest in the control group were drawn in table 2 below:

Table 2. The Score Distribution in Control Group

Score	Category	Pre-test		Post-test	
		Frequency	**Percentage**	**Frequency**	**Percentage**
86-100	Excellent	0	0%	0	0.0%
71-85	Good	0	0%	0	2.8%
56-70	Average	2	7%	10	55.5%
41-55	Poor	8	29%	10	36.1%
0-40	Very poor	18	64%	8	5.6%
	Total	28	100%	28	100%

From the above table, the results of pretest for control group were: Meanwhile, 0% (zero student) was in a good level. 7% (2 students) were in an average level, 29% (8 students) were in a poor level and 64% (18 students) were in a very poor level After that, in post-test result, it was found that 0% (zero student) was in a good level, 36%(10 students) were in an average level, 36% (10 students) were in a poor level, and 28% (8 students) were in a very poor level. The descriptive statistics from students in the experimental group was drawn in table 3 below.

Table 3. Desctiptive Statistics from Students in the Experimental Group

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
PreExp	28	38	68	50.44	6.976	48.940
PostExp	28	55	81	67.10	6.920	47.930
Valid N (listwise)	28					

Based on the table descriptive analysis of pre-test score and post-test in experimental group. The pre-test score showed that minimum score was 38.00 and maximum score was 68.00. the mean statistic score was 50.44 and standard deviation was 6.976. The post-test score showed that minimum score was 55.00 and maximum score was 81.00. The mean statistic score was 67.10, and the standard deviation was 6.920.

Table 4. Desctiptive Statistics from Students in the Control Group

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
PreCont	28	40	68	53.05	75.47	56.656
PostCont	28	38	69	50.41	6.985	48.940
Valid N (listwise)	28					

Based on the table above, showed the minimum score of pre-test for control group was 40.00 while maximum score was 68.00. The mean statistic was 53.05 with the standard deviation score was 7.547. the minimum score of post test for control group was 38.00 and the maximum score was 69.00. the mean statistic was 50.41 and the standard deviation score was 6.985.

The Result of Paired Sample T-test

The results of paired sample t-test could be seen from the table 5 and 6 below:

Table 5. Paired Sample T-test for Experimental Group

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PreExp – PostExp	-29.434	6.826	1.138	31.742	27.123	25.873	35	.000

Based on the paired sample t-test of the pre-test and post-test result for experimental group, it was found that the significant (2 tailed) was 0.00<0.05 with degree of freedom was 35 and t-obtained 25.873> t table 1.658, and with the mean was 29.434 in pre-test and post-test, so that the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted.

Table 6. Paired Sample for Control Group

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PreCont – PostCont	17.657	9.710	1.616	20.942	14.326	10.913	35	.000

Based on the paired sample t-test of the pre-test and post-test result for experimental group, it was found that the significant (2 tailed) was 0.00<0.05 with degree of freedoom 35 and t-obtained 10.913> t table 1.658, and with the mean was 17.657 in pre-test and post-test. It mean that even through there was a difference between the pre-test and post-test result for control group, it was not too sifnificant from experimental group.

The Data Analysis of The Independent Sample T-test

Based on the data collected from both experimental and control group, the writer used Independent sample t-test in SPSS 20 program to compare the result of post-test between experimental group and control group. The result of this analysis was shown in the table 7 below.

Table 7. The Result of Independent Sample T-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
Pos Equal variances test assumed	7.734	0.007	17.45	55	.000	24.76	2.358	11.438	17.278
Equal variances not assumed									

After the data were collected from both experimental and control group, the writers used independent sample t-test to compare the results of post-test of experimental and control group by using SPSS. According to the Levene's test of equal variances assumed, the sig was 0.07, and t table > 0.05, it was found that both groups were homogenous, and based on the independent sample t-test of post-test result for both groups, it was found that the significant (2-tailed) was 0.00, this coefficient was lower than 0.05 with the degree of freedom 55 and t-obtained 17.45> t-table 1.994 it mean that there was a significant diffrence between post-test of experimental and control group.

Based on the findings of the study, there were some interpretations could be drawn. First, the result of pre-test in experimental group was thirteen students got very poor with range score 0-40. Then, fourteen students got poor with range score 41-55 and one student got average score with range 56-70 and zero student got good score with range

71-85. Beside zero students that got good, other students who got very poor,poor and average it might be caused of some factors such as could not generate or express their ideas through their written text and also did not get any cleaar instructions. The post result in experimental group showed that eighteen students got good score with range 71-85, it was becaused of the treatment that had been given to them. While another ten students got average score with range 56-70 because of the prior knowledge and the activeness during in learning process. The result showed the significant different in experimental group from pre-test to post-test. Meanwhile in pre-test control group showed that eighteen got very poor score and the rest eight students got poor and two students got average score. The students who got very poor, poor and average score, it might be caused of some factors such as they did not get clear instructions, did not get any knowledge about explanation text and low motivation. The post-test control group result showed that eight students got very poor score, ten students got poor score, and ten students got average, it because of they still did not understand with the materials and instructions. On the other hand ten students got good score and four students got very good score, it because they did understand with the materials and activeness during in learning process. The result showed that was significant difference in control group from pre-test to post-test.

The second, the writer found that the result based on the output values of the paired sample t-test, sig. (2-tailed) 0.000<0.05 and t obtained 25.873 > t table 1.658 for experimental group, it meant that there was a significant difference after the some treatments, in control group also there was significant from pre-test to post-test, it could be seen from the output values of paired sample t-test show that sig. (2-tailed) 0.000<0.05 and t obtained 10.913> t-table 1.658.

Finally, the writer also found students' level of writing skill after being taught using discovery learning model more increased, it could be seen from independent sample t-test the result based on the output values obtained sig (2-tailed) 0.000<0.05 and t-obtained 17.45> t-table 1.994. it meant that there was significant diffrence between post-test results of experimental group and control group in which the post-test results of experimental group showed the better score than the post-test results of control group. So that based on the independent samples t-test, it could be concluded that Ho was rejected and Ha was accepted, it meant that there was a significant difference on writing achievement between the students who were taught by using discovery learning model in teaching writing and who were not During in learning process the writer found some different before and after treatment. Students were confused and difficult to start their writing. They could not generate and express the idea to be written out for their paragraph. And also students got confuse because they did not understand about materials. After receiving the treatment by using discovery learning model, they finally could generate and express their own ideas. Discovery learning model give some stages of instructions to write explanation text, it made the students more easy and clear when they write in explanation text.

Conclusions

Based on the above explanation, there were some conclusion made. it was effective to teach writing skill of explanation text by using discovery learning model to the third semester students of economy faculty of Tridinanti University Palembang. It could be seen from the result from the student's of achievement after post-test was given. The students' writing score between pretest and posttest in experimental group were significantly different and the students' posttest score between experimental group and control group was also different. It means that the alternative hypotheses (Ha) was accepted and the null hypotheses (Ho) was rejected.

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