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Research paper

The effect of peer feedback on students' argumentative essay: A quasi experimental method at the fifth semester students of the English education department, educational sciences faculty Uin Syarif Hidayatullah Jakarta 2016

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Abstract

The aim of this research was to know whether peer feedback gives an influence on students' argumentative essay at the fifth semester of English Education Department in academic year 2016/2017. It was done from September until December 2016 (four months). The subjects of the research were 50 students from two classes. A quantitative research by using a quasi experimental post test only control group design was used to implement the research. The sampling technique used was purpose sampling. The instrument was test. Both students from the two classes were administered test of writing an argumentative essay. The data were analyzed by using T- Test. The mean score result of Pretest of class 5 B showed 68.36 , and mean score of class 5 C was 70.12. Then, the mean score result of post test of 5 B was 82.56, and for class 5 C was 76.92. Furthermore , based on the statistical calculation with the significance level of 5% and 1% , it showed that t - observation was higher than t - table that was 1.68 <5.64>2.41. Hence, there is an effect of peer feedback towards students' argumentative essay.

Keywords: *Teaching Writing; Writing Argumentative Essay; Peer Feedback.*

1. Introduction

Once I asked my students in writing class. What language skill do you think more difficult to learn? Many of students answered; the difficult one among the skills is writing. Why do you think so? Because it needs some steps to do and take the time to have deep comprehension when we want to deliver our ideas in order to have a good writing. And also it is hard for us to find ideas to be chosen as one of our topics. This fact is true. The researcher experienced it for two years in teaching writing skill especially in writing an argumentative essay. Actually, the writer has tried to reduce the boredom, but it takes times to do. Every writing task should be corrected and given back to the students, time-consuming of course, and also lecturer's task is overload. Unfortunately, the result of the students' argumentative writing is still unsatisfied.

Students' writing ability, especially in an argumentative essay, is very needed by students before they develop their ability to write scientific writing. This step is very crucial for them to know early how to organize a good argumentative essay. They have to know the systematical writing of an essay by developing their ideas from facts. Then they give their analysis on the facts. Furthermore, the students elaborate their ideas into parts of the essay: introduction; content; and conclusion. Unfortunately, most students still cannot develop their ability in writing an argumentative essay. They have difficulties to find the ideas, how to develop the ideas, and how to use the language free of grammatical mistakes.

To overcome those problems, the researcher wants to find a way that is convenient to the students and good for the lecturer, too. In this research, peer feedback was applied. Peer feedback is assisted by the theory of writing process that is associated with various drafting, substantial alteration, and pair work (1) and with theory of synergetic learning that takes learning as a social activity taking place through communication (2). It also equals to the opinion of Rochelle and Teasley stating that collaborative learning is a "mutual engagement of participants in a coordinated effort to solve the problem together" (3). When students discuss with their friends they feel free and are not stress. As it was stated by Atay and Kurt that there are effects on adopting peer feedback in class such as providing diversity, sharing opinions, and increasing one's confidence as well.

2. Literature Review

2.1. Writing Argumentative Essay and Peer Feedback

The ability of writing argumentative text is one of the most valued educational aims by the educators at middle and high levels. The ability aids students to think in critical ways (4). And it is supported by Kuhn who suggests that argumentation is the way in which we logically solve problems and face issues as well as answer questions (5). It means that the skill to write an argumentative essay is very important for students, especially in a high-level education.

As some experts say that Peer feedback has the same name with peer review or peer evaluation. It is students' comments on his or her friend draft writing. According to Seliger (6), "students, writers can also give feedback to each other, which is called peer feedback". Furthermore, Liu and Hansen (7) stated that peer feed-

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back occurs as the learners utilize sources of information and interactions with each other in such a way that they carry the responsibilities in giving comment on each other drafts during the writing process. The meaning is the students have their background knowledge in shape of information to check their friends' writing. Here their role is to make the peer has an improvement in their writing.

There are some advantages of peer feedback on students' argumentative essay. The first is it provides cognitive advantage in guiding students to think rather than only receive feedback given by the teacher (8). Students do not merely depend on lecturer's corrections and instructions. Secondly, students can gain confidence since they express and negotiate their ideas in a stress-free zone that can decrease the anxiety they go through during the writing process. It means the students' stress can be decreased when collecting the writing task (9). The last is students experience collaboration with their peers (10). Social interaction is very essential in developing students' high social skill.

Although there are some doubts about the effects of peer feedback like stated by some people such as; some students may react negatively to their peers' comments and change into over-defensive ones (11); learners tend to attend to surface errors when they assigned to comment on their peers' writing (12); students have limited proficiency in the language and its rhetorical rules, preventing them from providing concrete and beneficial feedback, and also distinguishing good and poor feedback ((9); (13)); students might be unfavorable towards their peers and comment over-critically on their writing (12).

Meanwhile, some researches have shown that peer feedback has a positive effect on students learning and writing ability: Rouhi, Afsar & Azizian. Elnaz (14); Gielen, Mario & Wever, Bram De (15); Wever, Bram De & Hilde, Keer, Hilde Van (16); Yastibas, Gulsah Cinar & Yastibas, Ahmed Erdost (17). There are several researchers have proved that peer feedback can give positive effects on students' writing process. The effects are students' critical attitude, more thoughtful and detailed.

To prove that there is an effect of students' peer feedback on their writing argumentative essay, the writer wanted to conduct a research with the the title " There Effect of Peer Feedback on Students' Writing Argumentative essay at the fifth semester of English Education Department students in academic writing 2016/2017.

3. Methodology

The subjects of the research were English students of the English Department at the fifth semester who took Writing 3 subject. Time of the research was from September to December 2016 (4 months) in 12 meetings. There were 50 students from 5 B and 5 C classes. The samples were chosen by purposes sampling. Students of class 5 B chosen as the experiment class and students of 5 C chosen as the control class. The object of the research was the improvement score of students' argumentative essay. It was taken from the result of pretest and post test. the pretest was administrated to students before giving peer feedback, while post test was done after giving peer feedback treated to the experimental and control class. The data were analyzed by using T-Test. There were 4 kinds of argumentative essays given in the learning process of writing an argumentative essay. After at the end of each session of learning, students were asked to deliver their writing to be assessed by their peer. And it should be returned back.

4. Results and Finding

Table 1: The students' scores of pretest of experimental class (5B) & controlled class (5C)

No.	Experimental Class	Score	Controlled Class	Score
1	Student 1	63	Student 1	74
2	Student 2	62	Student 2	63
3	Student 3	70	Student 3	65
4	Student 4	71	Student 4	71
5	Student 5	72	Student 5	78
6	Student 6	77	Student 6	62
7	Student 7	67	Student 7	76
8	Student 8	60	Student 8	71
9	Student 9	80	Student 9	73
10	Student 10	74	Student 10	67
11	Student 11	78	Student 11	70
12	Student 12	73	Student 12	74
13	Student 13	68	Student 13	72
14	Student 14	76	Student 14	75
15	Student 15	77	Student 15	71
16	Student 16	71	Student 16	72
17	Student 17	61	Student 17	68
18	Student 18	68	Student 18	67
19	Student 19	65	Student 19	74
20	Student 20	62	Student 20	60
21	Student 21	70	Student 21	70
22	Student 22	60	Student 22	62
23	Student 23	61	Student 23	71
24	Student 24	62	Student 24	73
25	Student 25	61	Student 25	74
Total Score		1709		1753
Mean		68.36		70.12

As it was can be seen from the scores of pretest in the table, it can be clarified that the mean score of the pretest in the experimental class was 68.36, while in the controlled class was 70.12. And from the scores of both classes, it means that there was a difference between the students' achievement of scores in the pretest (experimental class and controlled class), the controlled class got the higher mean score than the experimental class.

Table 2: The students' scores of post test experimental class (5B) & controlled class (5C)

No.	Experimental Class	Score	Controlled Class	Score
1	Student 1	85	Student 1	78
2	Student 2	76	Student 2	69
3	Student 3	78	Student 3	71
4	Student 4	84	Student 4	81
5	Student 5	87	Student 5	83
6	Student 6	80	Student 6	70
7	Student 7	86	Student 7	82
8	Student 8	81	Student 8	75
9	Student 9	83	Student 9	77
10	Student 10	80	Student 10	72
11	Student 11	84	Student 11	75
12	Student 12	83	Student 12	78
13	Student 13	82	Student 13	75
14	Student 14	83	Student 14	80
15	Student 15	79	Student 15	74
16	Student 16	85	Student 16	77
17	Student 17	81	Student 17	74
18	Student 18	83	Student 18	74
19	Student 19	84	Student 19	79
20	Student 20	85	Student 20	85
21	Student 21	80	Student 21	74
22	Student 22	87	Student 22	83
23	Student 23	86	Student 23	83
24	Student 24	78	Student 24	78
25	Student 25	84	Student 25	76
Total Score		2064		1923
Mean		82.56		76.92

The table informs that the mean score of post-test in experimental class was 82.56, and the mean score of post-test in controlled class was 76.92. It means that there was a significant score of experimental class and controlled class in post-test, controlled class was increased in post-test session than in the pretest. But, for this session, the experimental class got the higher score than the controlled class. It proves that there is an effect of peer feedback on students' writing ability of argumentative essay.

After showing the comparison of students' pretest and post-test scores, the following table shows the gained score among those two classes. the gained score can be seen from the improvement

score of students' pretest scores compared with the students' post-test scores.

Table 3: The students' gained scores comparison between pretest and post-test in experimental class (5B) and controlled class (5C)

Gained Score				
No.	**Experimental Class**	**Score**	**Controlled Class**	**Score**
1	Student 1	0	Student 1	4
2	Student 2	14	Student 2	6
3	Student 3	8	Student 3	6
4	Student 4	13	Student 4	10
5	Student 5	15	Student 5	5
6	Student 6	3	Student 6	8
7	Student 7	21	Student 7	6
8	Student 8	21	Student 8	4
9	Student 9	3	Student 9	4
10	Student 10	6	Student 10	5
11	Student 11	6	Student 11	5
12	Student 12	10	Student 12	4
13	Student 13	14	Student 13	3
14	Student 14	9	Student 14	5
15	Student 15	2	Student 15	3
16	Student 16	14	Student 16	5
17	Student 17	20	Student 17	6
18	Student 18	15	Student 18	7
19	Student 19	19	Student 19	5
20	Student 20	23	Student 20	25
21	Student 21	10	Student 21	4
22	Student 22	27	Student 22	21
23	Student 23	25	Student 23	12
24	Student 24	16	Student 24	5
25	Student 25	23	Student 25	2
Total Gained Score		333		170
Mean		13.32		6.8

The table showed that the minimum gained score of experimental class was 0 and the minimum score of controlled class was 2. The highest score of experimental class is 27 and controlled class is 25. The average gained score of experimental class was 13.32 and for controlled class was 6.8.

4.1. Data Analysis

The data of the students' was analyzed by using the t-test to prove whether there was any significant difference between the students' writing ability of argumentative essay in experimental class as the X variable and controlled class as the Y variable. But, before using the formula of the t-test, the students' score in the experimental and controlled class were tabulated to calculate the gained score of each class. It can be seen as follows:

Table 4: Statistical Calculation of Gained Score Both the Experimental Class and Controlled Group Class

No.	**X**	**Y**	**X-MX**	**Y-MY**	**$(X-MX)^2$**	**$(Y-MY)^2$**
1	0	4	-13.32	-2.8	177.4224	121
2	14	6	0.68	-0.8	0.46	1
3	8	6	-5.32	-0.8	28.3	9
4	13	10	-0.32	4.8	0.1	16
5	15	5	2.32	-1,8	5.38	36
6	3	8	-10.32	2.8	106.5	25
7	21	6	8.32	-0.8	69.22	36
8	21	4	8.32	-2.8	69.22	1
9	3	4	-10.32	-2.8	106.5	25
10	6	5	-7.32	-1.8	53.58	25
11	6	5	-7.32	-1.8	53.58	1
12	10	4	-3.32	-2.8	11.02	36
13	14	3	0.68	-3.8	0.46	4
14	9	5	-4.32	-1.8	18.66	16
15	2	3	-11.32	-3.8	128.14	25
16	14	5	0.68	-1.8	0.46	1
17	20	6	7.32	-0.8	53.58	1
18	15	7	2.32	1.8	5.38	1
19	19	5	6.32	-1.8	39.94	4
20	23	25	10.32	19.8	106.5	0
21	10	4	-3.32	-2.8	11.02	1
22	27	21	14.32	15.8	205.06	1
23	25	12	13.32	6.8	177.42	16
24	16	5	3.32	-1.8	11.02	1
25	23	2	10.32	-4.8	106.5	1
Total	333	170	12.04	11.4	1545.42	839.12
Mean	13.32	6.8	0.4816	0.475	61.81	33.56

The table described the result of the students' pretest and post-test further in each class is calculated by using t-test formula in some steps as follows:

1. Determining mean of variable X, :
2. Determining mean of variable Y,
3. Determining standard of deviation score of variable X,
4. Determining standard of deviation score of variable Y,
5. Determining standard error of mean of variable X,
6. Determining standard error of mean of variable Y,
7. Determining standard error of different mean of variable X and variable Y,
8. Determining $t_{o,}$

$$To = \frac{Mx - My}{SEMx - SEMy}$$

9. Determining t-table with degree of freedom (df) in significant level of 5% and 1% with formula as follows:

$Df = (N_1 + N_2) - 2$

$Df = (25 + 25) - 2$

$Df = 50 - 2$

$Df = 48$

The value of df (degree of freedom) is 48. The value of 60 in the table "t" score at significant level of 5% = 1.677 and 1% = 2.407

After obtaining the data by using t-test formula, it is used to prove the result of the hypothesis as follows. Based on the description of the data calculation, it shows that:

1) The value of t-observation is 5.64
2) The degree of freedom (df) is 48, so the value of t-table in significance level of 5% = 1.677 and 1% = 2.407.

Because the value of t-observation > t-table, it proves that the null hypothesis is rejected and the alternative hypothesis is accepted. In other words, there is a significant different between the students' score in writing argumentative essay by using peer feed back and the students' score in writing argumentative essay without using peer feedback at the fifth semester students' English Education Department of UIN Syarif Hidayatullah Jakarta Indonesia.

5. Conclusion

Table 1 showed the mean score of pretest in experimental class was 68.36, and the mean score of pretest in controlled class was 70.12. And from the scores of both classes, it means that there was a difference between the students' achievement of scores in the pretest (experimental class and controlled class), the controlled class got the higher mean score than the experimental class. Meanwhile, the table 2 showed that the mean score of post-test in experimental class was 82.56 and the mean score of post-test in controlled class was 76.92. It means that there was a significant score of experimental class and controlled class in post-test, control class was increased in post-test session than in the pretest. But, for this session, the experimental class got the higher score than the controlled class.

Moreover, the table 3 also showed that the minimum gained score of the experimental class was 0 while the controlled class was 2. The highest score of the experimental class was 27 and controlled class was 25. The average gained score of the experimental class was 13.32 and for the controlled class was 6.8. It proves that there is a significant effect of peer feedbacks on students' writing ability of argumentative essay.

Based on the calculation of t-test, it is known that the result of t-observation is 5.64 and the degree of freedom (df) is used in the significance level of 5% = 1.677 and 1% = 2.407. By comparing the value of t-observation and t-table, it can be known that the result of calculation of t-observation is higher than t-table, so the null hypothesis is rejected and the alternative hypothesis is accepted. Thus, there is significantly different between the students' score in writing an argumentative essay by using peer feedback and the students' score in writing an argumentative essay without peer feedback at the fifth-semester students' of English Education Department. It means that there is an effect of peer feedback on students' writing ability of argumentative essay.

Based on statistical analysis, the scores of experimental class in the pretest were lower than the controlled class. The data showed that the mean score of pretest in experimental class was 68.36, while the mean score of pretest in controlled class was 70.12. From the scores of both classes, it means that there is a difference between the students' achievement of scores in the pretest (experimental class and controlled class). Moreover, there is also a significant difference between the experimental class and controlled class scores in post test.

Meanwhile, the mean score of post test in experimental class was 82.56 and the mean score of post test in controlled class was 76.92. It can be described that in the post test session, the experimental class got the higher score than the controlled class. The statistical analysis showed that the minimum gained score of the experimental class was 0 and the minimum gained score of the controlled class was 2. Meanwhile, the highest gained score of the experimental class was 27 and the controlled class was 25. the average gained score of the experimental class was 13.32 and the controlled class was 6.8.

Therefore, it can be concluded that the students' ability in writing an argumentative essay in experimental class that was given treatment by using peer feedback enhance more effectively than the controlled class without giving peer feedback. It is clear that there is an effect of peer feedback on students' writing ability in argumentative essay.

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