GOOGLE DOCS FOR COLLABORATIVE WRITING METHOD IN ENHANCING STUDENTS' WRITING PERFORMANCE

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ABSTRACT

This study aims to identify the effect of integrating Google Docs into collaborative writing activity to enhance the students' writing performance, and to find out the perspectives of the students on the use of Google Docs in collaborative writing practice. The participants of this study were students of D3-Accounting study program, Politeknik Negeri Ujung Pandang. This study is mixed-method research and used an explanatory sequential design where the collection and analysis of quantitative and qualitative data were applied. Pre and Post-questionnaires, pre and post-writing tasks, and interview were administered to examine the efficacy of integration. The findings of this study showed a significant difference between the pre and post-writing task scores. The students' scores in the post-writing tasks gained a higher mean score than their pre-writing task scores. Besides, the participants revealed that they have positive attitudes toward the use of Google Docs in a collaborative writing activity.

Keywords: writing performance, collaborative activity, Google docs, argumentative essay

1. INTRODUCTION

English has a vital role as an international language which continued taught in all education level, and writing is considered as the most important skill as it used more widely in higher education level [1]. Regarding the significance of English as a communication tool in the worldwide and writing skill which become the most crucial skill in the academic setting, English for Academic Purposes become one of compulsory subject for students at D3 Accounting Department, State Polytechnic of Ujung Pandang. This course aims to equip the students with writing competence, for instance, the ability to write an argumentative, narrative, and descriptive essays. Among various types of essays, argumentative writing is the essential type which needs to learn in school and the university [2]. Writing an argumentative essay is a comprehensive one because it covers all aspects of the students as the writer starting from choosing an issue, writing ideas towards the issue then stating the supporting opinions to strengthen the topic [3].

Learning English is not new for students, but they still considered dealing with difficulties in English writing [1]. Consequently, regular changes and development of teaching methodology are essential to solve the students' problems in writing and to prepare them with a remarkable ability to produce a good text [4]. The most notable change in language teaching methods is implementing students-centred-learning method. Amid various methods that employ students-centred-learning, the collaborative writing activity is one of alternative method which can build an active learning process [5]. Intrinsically, collaborative writing is the method where two or more students work together to compose a written text. The collaborative writing activity is sufficient to the teaching of language because it serves the students with a chance for language practice, discussing their own and their peers' language use as they try to construct meaning [6]. Thus, collaborative writing is a beneficial method to improve activeness in teaching and learning activity.

The emergence of technology-information use has served a significant role in the language teaching process in and out of the classroom. The framework of English language teaching in most higher education level in the world had shifted from face-to-face classroom settings to the blended classroom [7]. Regarding the development of technology, information and communication, using the internet in the teaching and learning language is the most potential chance of technology use [8]. The students can gain their knowledge development, doing group discussion, and collaborating through the internet [9]. Besides, the emergence of Web 2.0 technologies become popular in the educational field [10], including the English language teaching because it enables the exchange of thought through the Web without any time and space control.

Google Docs become a useful tool which assists the English lecturers to encourage the students in expressing their thought and giving comment on their peers' writing. Google Docs is relied on to be a promising instrument in implementing collaborative writing [11]. This platform can be an effective tool which assists the English lecturers to raise the students in expressing their thought and giving comment on their

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peers' writing to enhance their writing skill. Therefore, this study conducted to explore the effect of using Google Docs on students' collaborative writing activity in writing an argumentative essay at D3- accounting study program, Accounting Department, State Polytechnic of Ujung Pandang. This study was guided by two research questions:

1. To what extent does the use of Google Docs in collaborative writing method effective to enhance the students' writing performance?
2. What are the students' perceptions towards the use of Google-docs in collaborative writing activity?

2. RESEARCH METHODOLOGY

This study is mixed-method research which undertaken to determine the impact of integrating Google Docs used with a collaborative activity on students' argumentative essay writing performance. The explanatory sequential design was applied in this study. The participants were 22 students from 2B-class of D3-Accounting study program. The data gathered utilizing three kinds of instruments: writing argumentative essay tasks, questionnaires and interview with the students. The road map of this study illustrated as follows:
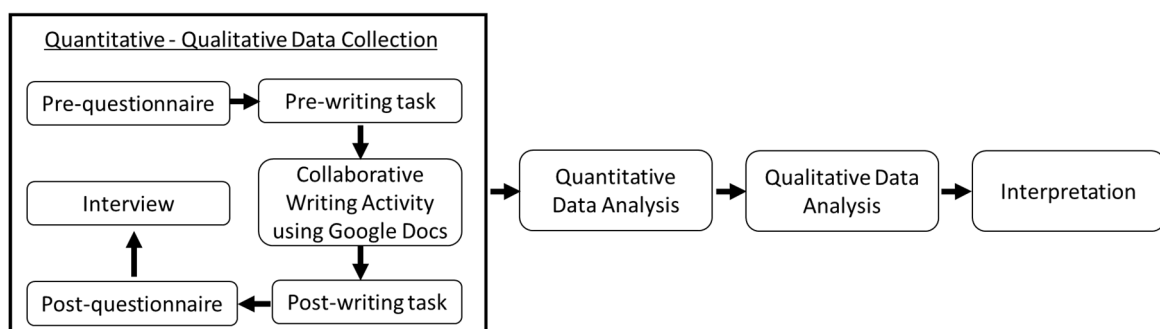

Figure 1. The research road map

Techniques of collecting data using these three instruments were in the following setting: First, the researcher administered pre-questionnaire to survey students' knowledge and experience with Google Docs. Next, the researcher administered the pre-writing task to measure students' performance in writing an argumentative essay before implementing collaborative method through Google Docs. After that, Post-writing tasks were given by asking students to write an argumentative essay after applying the method. The researcher then administered the post-questionnaire test, which used the Likert scale to rate the participants' perspectives toward the implementation of collaborative writing through Google classroom. The last was interviewed the participants by using semi-structured interview model to gain more information about the participants' experience in writing an argumentative essay collaboratively through Google Docs. The collected data were analysed as follows:

2.1. Technique of quantitative data analysis

The collected quantitative data from the pre-post questionnaire and pre-post writing tasks analysed by using descriptive statistical analysis method. Firstly, the researcher rated the results of students' writing tasks by giving the score into a cardinal number. Next, the data (scores) from post-questionnaire and written tasks computed in Statistical Package for the Social Science (SPSS) version 25 to be analysed.

2.2. Technique of qualitative data analysis

The researcher applied the narrative analysis method to analyze the data. The steps were: First, the researcher documented and processed the collected data from pre-questionnaire and interview, then organized and categorized the data into a concept. Next, the researcher connected the data to show whether or not Google Docs, which use in collaborative writing method contributes to enhancing students' writing performance. The last was explaining the result by interpreting the data.

3. RESULTS AND DISCUSSION
3.1. Result

In order to answer the research questions, the collected data from the closed questions of pre-post questionnaires and pre-post writing tasks were analyzed quantitatively using SPSS 25. In contrast, the collected data from the open questions of pre-post questionnaires and the interviews were analyzed qualitatively.

3.1.1. Students' Knowledge and Experience with Collaborative Writing through Google Docs

Table 1 shows the results of the closed-ended question in the pre-questionnaire, all of the participants have a Gmail account (question1), and only three students never heard about Google Docs (question2). Next, 14 participants stated that they have ever used Google Docs (question 3), and 11 of them have used it to complete their assignments (question4). Out of 22 participants, only one participant, whoever used Google Docs collaboratively in doing his assignment (question5).

In addition, the open-ended questions of the pre-questionnaire results pointed out that almost all participants thought Google Docs as a data processor and a place to save the data. The participants stated that they used Google Docs to fill in the form of an attendance list. Further, All of the participants also had never involved in a collaborative writing activity. This results indicated that the participants still had a lack of knowledge and experience in using collaborative writing activity by using Google Docs.

Table 1. Result of the close-ended questions in the pre-writing questionnaire.

			question1	question2	question3	question4	question5
N	Valid	No answer			3	8	11
		No		3	5	3	10
		Yes		19	14	11	1
		Total	22	22	22	22	22
	Missing		0	0	0	0	0
Mean			2.0000	1.8636	1.5000	1.1364	.5455
Std.Deviation			.00000	.35125	.74001	.94089	.59580

3.1.2. The Comparison of the Pre and Post Writing Task Scores

In the pre and post-writing tasks, participants were given a topic to write an argumentative essay. They had one week to complete the pre-writing task without using Google docs which was the same time for the post-writing task using Google Docs. The researcher scored the tasks using the argumentative essay rubric. A comparison of the pre and post writing task scores using descriptive statistic was carried out to check the discrepancies in the writing performance of the students before and after implementing the collaborative writing method using Google Docs.

Table 2. Normality of Pre and Post-Writing Task

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-Writing Task	.183	22	.053	.958	22	.456
Post Writing Task	.121	22	.200	.942	22	.221

The normality of the pre and post-writing tasks were tested to see whether or not the samples were normally distributed. Table 2 indicates that the findings were not statistically significant at the 0.05 level (df = 22, Sig. > 0.05). It means that the data of the samples were normally distributed. Since the normality of the pre- and post writing tasks were normal, a paired samples *t*-test used to compare pre and post writing tasks score as the samples were the same for the pre and post-writing tasks.

Table 3. Paired samples *t*-test results

Writing Tasks	Mean	Std.Deviation	df	t	Sig. (2 tailed)
Pre-Writing Task	68.50	12.633	21	-6.420	.000
Post-Writing Task	78.05	7.000			

Mean Difference	-9.545

A paired samples *t*-test is used to verify the differences in the students writing performance before and after implementing the collaborative writing method using Google Docs. The test results showed that the mean score of the pre-writing task (68.50) lower than the post-writing task (78.05). The standard deviation for the pre-writing task score =12,633 and the post-writing task score was 7,000. The results were statically significance at the 0.05 level (sig. 2-tailed >0.05), which means that there is an improvement in the students writing performance.

3.1.3. Students' Attitudes towards the integration of Google Docs and collaborative writing activity

After the post-writing tasks completed, the post-questionnaire was administered to the participants to find out the students' attitudes toward the use of Google Docs in the collaborative writing method. The collected data of the closed-ended questions were analyzed using SPSS, while the open-ended questions were analyzed qualitatively using the narrative method.

Table 4. Means and standard deviation of students' attitudes toward collaborative writing method using Google docs in the Post-questionnaire.

Statement	Mean	Std.Dev
1. I enjoy doing the essay writing task collaboratively by using Google Docs.	4.23	1.020
2. Writing collaboratively by using Google Docs is easier than writing individually.	3.91	1.065
3. Google Docs is a useful tool in collaborative writing activity.	4.27	.883
4. I will use Google Docs for more collaborative writing activity in the future.	3.86	1.037
5. Collaborative writing method by using Google Docs improves my confidence in writing a better essay.	3.55	.800
6. Collaborative writing method by using Google Docs foster exchange of knowledge, information, and experience.	4.00	1.155
7. Collaborative writing activity by using Google Docs enhances my English writing performance.	3.59	.796
8. The use of Google Docs in collaborative writing activity gives me a chance to share ideas easily in my group.	4.09	1.269
9. Collaborative writing activity by using Google Docs helps me to receive helpful feedback.	3.91	1.109
10. Using Google Docs in collaborative writing activity stimulates my critical thinking.	3.68	.716
Average	3.90	.990

Table 4 indicates that the overall mean score reflected the students' positive attitudes towards the use of Google Docs in Collaborative writing method (mean = 3.90). The highest score of the students' attitudes was in statement 2 that Google Docs is a useful tool in collaborative writing activity (mean = 4.27). The students also expressed their positive attitudes towards the statement no. 8 that the use of Google Docs in collaborative writing activity offers them an opportunity to exchange ideas easily in their group (mean=4.09). The lowest mean score was on statement no.5 that collaborative writing method using Google Docs improves their confidence in writing a better essay (mean=3.55). Furthermore, when the students' were asked about their comments regarding the collaborative writing activity using Google Docs, they expressed their wishes that this method could also be used in next or the other course. However, they also faced problems during this activity, such as inactivity of a member in their group collaboration because they still felt confused to use Google Docs at the beginning of the activity, and the poor of internet connection.

3.1.4. Results of the interview

The interview aimed to provide more insights into the efficacy of integrating Google Docs with collaborative writing method. After submitting the post-questionnaire, random participants were interviewed and asked about the experience they had encountered. In the first question of the interview, all the participants shared their positive feelings on integrating collaborative writing activity with Google Docs. However, when the participants were asked about to what extent did they find Google Docs helpful and interesting as the second interview question. They stated that in the beginning, they felt lost and still can not use Google Docs properly because it was their first experience. In the end, however, they found it was not hard and easy to use. Through left comments in the comment section, they can interact with each other and give feedback about each other writing that is good because, at the same time, they corrected their mistakes. They may indeed analyze whether or not their argumentative essay structure was right.

In the third interview question, the participants were questioned about the difficulties they encountered when using Google Docs. They claimed that because it was their first experience, they only had difficulties at the beginning of the activity. The poor connection makes them unable to communicate in their group in the real-time. It means that the participants did not face any difficulties when they used Google Docs for collaborative writing activity; they just had technical problems due to poor internet access. The last question in the interview was the participants' opinion about whether or not Google Docs could be used in the next course. All interviewees indicated that they agree if Google docs will be used again because this method helps complete their assignment.

3.2. Discussion

This study was conducted to assess the effectiveness of integrating Google Docs into a collaborative writing activity. The activity became a new experience for the participants in completing their writing assignment as they have never involved in collaborative activity using Google docs. After running the SPSS analysis (paired sample *t*-test) for the pre and post writing tasks, the result was statistically significant at the 0.05 level (sig. 2-tailed >0.05) (table 3). The mean score of students' pre-writing task was 68.50; the mean score increased to 78.05 in the post-writing task. These results indicate that the students' writing performance improved by integrating Google Docs with a collaborative writing activity. The result might be because of two reasons: collaborative writing activity provides an opportunity for the students to read, review, and correct other members' writing. With the feedback they got from each other, they learn about their writing problems, such as wrong mechanics and illogical organization of the text. Comments for each member of the group can be used for reconsidering both ideas and organization, which can lead them to a significant revision. Second, Google Docs plays an important role as it supports the students in the collaborative writing activity without the restriction of time and place. Integrating collaborative writing activity with Google Docs provides an opportunity for the students to gain constructive learning on writing an argumentative essay because they can construct their knowledge by their experience.

Furthermore, the students also conveyed their optimistic views on the use of Google Docs in collaborative writing (Mean = 3.90) activities. The high degree of attitudes of the students was in the argument that Google Docs is a useful tool (mean = 4.27) for the collaborative writing activity. The students also shared their positive attitude to the statement no. 8 that the use of Google Docs in collaborative writing activities provides them with an opportunity in their group to easily share ideas (mean= 4.09). On statement no.5, the lowest mean score was that the collaborative writing method using Google Docs increases their confidence in writing a better essay (mean=3.55). From the interview results, more insight into the integration effectiveness of collaborative writing and Google docs was revealed. Participants were asked about their answers to the post-questionnaire. They confirmed that they were worried about using Google Docs in the beginning since it was their first experience. However, they found it was not complicated and easy to use at the end of the day. They could engage together through the comment section and provide feedback about others writing that is good because they corrected their mistakes at the same time. Also, they could examine whether their argumentative essay structure was correct or not. Participants also revealed that while they used Google Docs for collaborative writing tasks, they did not face any difficulties; they just had technical problems because of limited internet connectivity.

4. CONCLUSION

The main objective of this study was to examine the effectiveness of integrating collaborative activity in writing an argumentative essay with Google Docs. The findings of this study revealed that using Google Docs in the collaborative writing activity was their first experience. After implementing the method, the students

gained higher mean scores in the post-writing task than the pre-writing task. In collaborative writing activity using Google Docs, the students were provided with a chance to gain constructive learning which makes them have a deep understanding of writing an argumentative essay correctly. So when they were asked to write an argumentative essay as the post-test after implementing the collaborative writing method using Google Docs, they were not as complicated as in the pre-writing tasks. Moreover, the students also had positive attitudes on the use of Google Docs in a collaborative writing activity. They confirmed that they did not face any difficulties when involved in the activity; they just had technical problems because of limited internet connectivity.

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6. ACKNOWLEDGMENT