

Effects of Academic Web-based Projects on EFL Students' Writing Motivation

By

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Abstract

The main objective of the study was to examine the effects of collaborative writing using academic web-based projects on EFL students' writing motivation in terms of self-efficacy, achievement goals, beliefs and affects about writing. A single group quasi-experimental design was used. A total of 35 (30 male and 5 female) second year English major students, enrolled in advanced English course, at Woldia University participated in this study. Comprehensive sampling technique was used to select participants. Questionnaire was used to collect data about learners' writing motivation before and after intervention. Students' diary analysis and focus group discussion were also employed as data gathering instruments during the intervention and after the intervention respectively in order to triangulate the data obtained through questionnaire. The data obtained through students' questionnaire were analyzed quantitatively using paired sample t-test. On the other hand, the data gathered using focus group discussion and students' diary analysis were analyzed qualitatively through thematic analysis. Specifically, Google Docs was employed in this study among other academic web-based plat applications. Results demonstrated a significant difference between learners' writing motivation before and after the intervention which suggests that collaborative writing via academic web-based projects specifically, using Google Docs positively influenced students' writing motivation. Therefore, EFL teachers can employ collaborative writing using academic Web-based projects besides the conventional collaborative writing approach to promote their students writing motivation.

Keywords: Collaborative writing, Academic web-based projects, Google Docs, Writing motivation

1. Introduction

In learning English, students are expected to master the basic skills emphasized in English language classroom; however, it is found difficult for many EFL students, especially in writing for both academic and general purposes (Dastgeer & Afzal, 2015; Younes & Albalawi, 2015). There are snags that both students and teachers have faced since writing skill is a complex process. First, students have limited ability to generate idea for their composition. Second, students are poor in using the appropriate language structure. Sometimes, students have ideas in their mind to write something, but they cannot write properly using the accurate grammar. Third, students are not interested to write. It is because the learning and teaching processes do not motivate them. Teachers simply let students to compose a given writing task individually exposing them to be less confident in writing. This pushes some students to simply copy their friends' work. Another source of students' problem is teacher's way of teaching. Teachers are not very technical in using a teaching method that initiates students' motivation and interest to learn writing skill. This affects the outcome of the learners' writing performance (Metilia & Fitrawati, 2018). Therefore, it requires looking for appropriate strategy that promotes learners writing motivation and writing performance.

According to Storch (2016) collaboration among students/collaborative writing is an interesting alternative in terms of helpful and active learning environment. In relation to this, a number of studies reported that collaborative writing practices in second language classroom are useful through providing more learning opportunities like: reading and discussion among the students leading to better learning outcome (Zhang, et al., 2018). Research findings suggest that using collaborative writing with Web-based projects may benefit students by allowing more convenient feedback and revision and a faster response time, potentially increasing motivation and creativity (Lam & Pennington, 1995). Such technologies also allow students to work on the text simultaneously, and the text is always available to all users (Pennington, 1991).

Previously, writing was viewed as a solitary activity. However, the nature of work place writing and the advent nature of Web.2.0 applications like: blogs, Wikis and Google Docs have transformed writing practices as collaborative activity through making the creation and sharing of texts easier, and more readily acceptable. As a result, these days, writing is often completed in

teams rather than individually, and collaborative practices are being increasingly advocated in second language classroom largely in response to the collaborative potential of Web 2.0 tools. The literature reveals a noticeable increase in interest in collaborative writing (e.g., Kessler, 2009; Kessler & Bikowski, 2010; Storch, 2005).

Collaborative writing refers to the involvement of two or more writers to produce a single text. It originated from collaborative learning, and in this study it largely rests on the work of Vygotsky (1978) which stresses the role of social interaction for learning activated through the Zone of Proximal Development (ZPD) (Dillonbourg, 1999). The present study examines 1) how learners' writing motivation can be enhanced when the collaborative writing process is facilitated with newer technologies and 2) students' experiences specifically, using Google Docs in doing collaborative web-based writing projects.

Many of the technological advances currently available are those in the realm of Web 2.0. Among these, Google Docs is suggested as the latest and effective academic web-based writing platform in teaching writing in collaborative environment (Sholihaha & Setyandaria, 2018). Google Docs allows users to create, edit, and share documents online. It is part of the Google Workspace suite of productivity tools. It is a popular choice for students, businesses, and individuals because it is easy to use, free to access, and accessible from anywhere with an internet connection. In addition, it offers a variety of features that make it a powerful tool including: real-time collaboration, version control, document sharing, templates and add-ons (Sholihaha & Setyandaria, 2018).

Various studies compared student learning between online technology group and face-to-face group in second/foreign language classes yielding different findings. A number of studies have found that the use of online technology in the classroom can facilitate collaborative learning among students, increases writing motivation and promotes learning outcomes (Chou & Chen, 2008; Vaughan, 2008). Other findings suggest that students perceived Google Docs as a useful tool for group work (Brodahl et al., 2011; Zhou et al., 2012). Students believed that a document that was written collaboratively might have higher quality than a document written alone (Blau & Caspi, 2008). However, online collaborations might also lead to unpleasant learning experiences. For example, students and instructors might feel uncomfortable in sharing knowledge (Rick & Guzdial, 2006). Students believed it was not appropriate to change

other students' written products, and they may not all contribute equally to the assignment (Coyle, 2007).

The aforementioned foreign research works were focused on examining learners' perception about collaborative writing using Google Docs, and exploring the effects of collaborative writing using Google Docs on students' writing performance. However, as far as the present researcher's knowledge is concerned, there are no local studies which investigated the effects of collaborative writing using academic web-based projects, particularly Google Docs on EFL students' writing motivation. Therefore, the result of this study will fill the gap through providing an insight into how technology can be used to support students' mutual learning and how much collaboration on written assignments/projects in an online learning environment enhances students' writing motivation. Therefore, in the current study, learners' motivation in writing argumentative essay has been investigated in terms the four motivational factors: self-efficacy, achievement goals, beliefs and affects about writing according to (MacArthur et.al, 2016).

Thus, based on the above stated views on the problem the research tried to answer the following basic research questions:

1. Was there a significant difference in EFL students' writing motivation before and after the intervention of collaborative writing projects/ activities using Google Docs?
2. What were EFL students' experiences in using Google Docs to do collaborative writing activities/projects?

2. Methods

2.1. Design of the Study

In this study, a single group quasi-experimental design was employed as it allows to recognize effects of collaborative writing using Google Docs in a group of participants through mitigating data contamination that happened between or among groups, and controlling other extraneous variables that influence the study (Matowe et al., 2004).

2.2 Participants, Sample and Sampling Techniques

In the present study, a total of 35 (30 male and 5 female) second year English major students who enrolled in advanced English course, at Woldia University were selected using purposeful sampling method since these students are highly attached with the issue under investigation, and there was only one English major section who took this writing course in the University. Then, all these students in this section were taken using comprehensive sampling as participants of the study. In the present study gender disaggregation was not impossible because vast majority of the students were males.

2.3. Data Gathering Instruments

Gathering data with different alternative tools increases the authenticity of the information obtained and triangulation of information possible during data analysis (Richards, 1994). Accordingly, three data collecting instruments: questionnaire, focus group discussion and students' diary analysis were used to collect data about student's academic writing motivation and their experiences in using Google Docs.

2.3.1. Questionnaire

A questionnaires was used to gather data on students' motivation towards academic writing. It incorporates 24 items among which 10 of them pertain to self-efficacy, five achievement goals, five beliefs about writing, and the rest five affect about writing. According to MacArthur et.al (2016) these are the main aspects of motivation, and the questionnaire was adapted from it. The items were a five-point Likert type ranging from - 'strongly agree'- to - 'strongly disagree'. This questionnaire was distributed before and after the intervention. Prior to intervention the questionnaire was administered to understand students' existing motivation towards academic writing. The post-intervention questionnaire was used to see if there were changes in students' motivation towards writing. Before the questionnaire was administered to the students, its content validity was checked and approved by concerned experts along with the two supervisors. Besides, Cronbach Alpha test was conducted to check the internal consistency of the questionnaire items. As a result, necessary modifications were made accordingly (McMillan & Schumacher, 1997).

2.3.2. Students' diary analysis

In line with Donyaie and Afshar's (2019) arguments on use of diaries, diary analyses were made in the present study to collect data about students' daily feelings, thoughts and experiences about collaborative writing using Google Docs. The data gathered using this instrument was used to triangulate the finding obtained from the questionnaire. The students' diary analysis was administered throughout the intervention per each session to gain data on students' reaction while working on collaborative writing tasks using Google Docs. In doing so, a checklist was designed and used to guide students' reflection about the effectiveness of the daily lesson, and the ways which should be improved. Before the students' diary analysis guide was handed to the participants, its validity was ensured by concerned experts along with the two supervisors.

2.3.4. Focus Group Discussion

Focus group discussion (FGD) was employed to triangulate the data obtained using questionnaire. The FGD focused on learners' general feeling and experience about the intervention (collaborative writing using Google Docs) with reference to their motivation towards writing. The FGD was conducted after the intervention with four groups that involved 8-9 students. The validity of the FGD guide was checked by experts and the two supervisors based on which the necessary modifications were made.

2.4. Data Collection Procedure

Prior to data collection activities, some important steps were taken to enhance the reliability and validity of instruments mentioned earlier. The main procedures are highlighted below. First, the data collection instruments including questionnaire items, focus group discussion and students' diary analysis items were developed. In addition, the teaching manual/ material was prepared to guide the intervention. Next, all the items of all the data collection instruments and the teaching manual were subjected to experts' opinion. In doing so, two experts along with the supervisors/advisors were consulted, and all of the instruments were modified and improved based on the experts' valuable comments and feedback. Data collection instruments that require translation work were translated with experts' valuable comments regarding to make sure the items retain the essential meaning and will easily be understood by participants. Then, all the data gathering instruments and the teaching manual were piloted with English major students

taking advanced writing English course at Bahir Dar University. After running internal consistency analysis on the pilot data the necessary modifications were made to data gathering instruments. Finally, the main study was conducted at Woldia University.

In the main study, first, the participants were given a pre- intervention questionnaire to determine their existing motivation towards writing. Following this questionnaire, the intervention was given by the course teacher for twenty hours. When the intervention was given, the students' diary analysis was collected from throughout the intervention per each session.

After the completion of the intervention, participants were given a post- intervention questionnaire. The post- intervention questionnaire was identical with the pre- intervention questionnaire. It was administered to collect data which was needed to determine whether collaborative writing using Google Docs brings improvement on students' writing motivation. Then after, FGD was conducted to gather data about the students' general feeling and experience about the intervention in line with their motivation towards writing, and to triangulate data obtained through the other instruments. Finally, after the completion of the data gathering, the data analysis was made using both quantitative and qualitative means.

2.5. Data analysis method

Both quantitative and qualitative data analyses techniques were employed depending on the nature of the data. Paired sample t-test was employed to analyze data collected using questionnaire to examine the effects of collaborative writing using Google Docs (independent variable) on EFL students' writing motivation (dependent variable) by way of comparing students' writing motivation before and after the intervention. The statistical analysis was conducted using the latest SPSS/ Statistical Package for Social Sciences (Version 29), and all statistical tests were set at a p value of .05. On the other hand, the data collected using students' diary analysis and FGD were analyzed qualitatively through thematic analysis.

3. Results of the Study

3.1. Students Motivation towards Writing

3.1.1 Questionnaire Results on Students' Motivation

This sub-section presents results of analyses of the questionnaire data using paired samples t-test.

Table 1

Means and standard deviations of students' motivation before and after the intervention

Pairs	Items	Tests	Mean	N	Std. Deviation
Pair 1	Self-efficacy of writing	Pre-intervention	3.49	35	.37
		Post-intervention	3.97	35	.42
Pair 2	Goal Orientation of writing	Pre-intervention	3.61	35	.47
		Post-intervention	4.07	35	.58
Pair 3	Belief about of writing	Pre-intervention	3.76	35	.46
		Post-intervention	4.02	35	.54
Pair 4	Affect about Writing	Pre-intervention	3.57	35	.56
		Post-intervention	3.80	35	.41

The paired samples statistics presented in Table 1 shows that the mean scores of the post-tests were higher than the mean scores of the pre-tests in each writing motivation dimension with the highest difference obtained in self- efficacy of writing (pre-test mean, 3.49; post-test mean, 3.97). The least difference in pre and post intervention scores means was observed in affect about writing (pre-test mean, 3.57; post-test mean, 3.80)

Similarly, the standard deviations of the pre-intervention and post-intervention results of each pair have no significant differences ($SD < 1$). It implies that the students' motivation increased after the intervention consistently. Thus, it can be understood that collaborative writing activity using Google Docs in writing classes slightly increased students' self-efficacy, goal orientation, belief and affect about writing which are the core elements of motivation.

Table 2*Paired samples t-test result of students' motivation before and after the intervention*

	Items	Tests	Mean difference	Std. Error of Mean	t	df	Sig. (2-tailed)
Pair 1	Self-efficacy of writing	Pre-intervention Post-intervention	-.47429	.06	-7.794	34	.000
Pair 2	Goal Orientation of writing	Pre-intervention Post-intervention	-.45714	.09	-5.099	34	.000
Pair 3	Belief about writing	Pre-intervention Post-intervention	-.25714	.07	-3.632	34	.001
Pair 4	Affect about Writing	Pre-intervention Post-intervention	-.22571	.08	-2.695	34	.011

The paired samples test table, table 2 shows that the students' motivation increased after collaborative writing activity using Google Docs. Specifically, the null hypotheses of equal self-efficacy means ($t(34) = -7.794, p < .05$), goal orientation means ($t(34) = -5.099, p < .05$), belief about writing means ($t(34) = -3.632, p < 0.05$), and affect about writing means ($t(34) = -2.695, p < .05$) were all rejected. Thus, it can be concluded that the students' self-efficacy, goal orientation, belief, and affect about writing increased through collaborative writing activity using Google Docs in their advanced writing classes.

3.1.2. Focus Group Discussion Results on Students' Writing Motivation

In the focus group discussion students reported that collaborative writing using Google Docs increases their motivation with respect to their willingness and preference towards writing. Students mentioned that they were interested in doing tasks collaboratively using Google Docs. In addition, they explained that use of Google Docs was more preferable and attractive than the familiar/ convention way of learning since it allows each student to develop their writing skill through sharing ideas and comments with their groupmates and teacher easily.

Besides, practicing the skill without any time and place boundary increased their motivation or made them to be more attracted by the new approach (collaborative writing using Google Docs).

Moreover, it provided them multiple opportunities to find information /evidence for their writing using different sources like internet, search engine among others. As a result, they explained that Google Doc made the process of writing their argumentative essays collaboratively simple and interesting for them. Thus, it was a clear indication that use of Google Doc helped students to freely discover topic for their writing and produce their own essay accordingly.

Overall, results of the focus group discussion showed that the students' motivation towards writing improved after the intervention/ after they used Google Docs to do collaborative writing tasks.

3.1.3. Student-Diary Analysis on Writing Motivation

The data obtained from students' diary indicated that the students' writing motivation improved when they used collaborative writing using Google Docs. Many of them explained that collaborative writing using Google Docs were interesting to work on writing tasks, and develop their writing skill as well.

One of the students documented:

Collaborative writing using Google Docs makes the process of writing easy and entertaining, because many of we students are spending lot of time with our smart phone for different purposes. Thus, it provides us great opportunity to practice the skill through working together with our friends in the place and time we prefer.

Another student also stated her feeling about collaborative writing using Google Docs. Her diary account read as follows:

We are students of the 21st century, so we need to learn in the way that fits the time and situation. Therefore, collaborative writing using Google Docs for me is an interesting and innovative approach that fills the gaps of the conventional way of learning (face-to-face collaborative writing approach) like shortage of time to work and complete the given writing tasks collaboratively.

From her response above it is possible to infer that collaborative writing using Google Docs was highly accepted by the student, and it had a role in increasing students' motivation towards writing.

However, the students in their diary also mentioned challenges that indirectly influence their motivation in using Google Docs to do the collaborative writing tasks. Analyses of the challenges students mentioned showed that lack of technical skill to use Google Doc actively and properly, lack of qualified electronic device to apply Google Doc, as well as weak internet connection stood as major factors that influenced the whole teaching learning process from beginning to end using collaborative writing via Google Docs.

Specially, around four students explained using smart phone to learn essay writing was boring since it did not make them write quickly what they drafted on a paper. They suggested using computer instead of smart phone is preferable to avoid the problem. In addition, most of the students also suggested using Google Docs and other related online technologies besides the conventional way/ approach regularly is significant in mitigating problems that happen in using face-to-face collaborative writing approach, and promoting their motivation/interest to learn writing.

3.2. Discussion

Motivation is a necessary ingredient to bring success to students. In line with this, many scholars acknowledged motivation as the main factor that influences the learning process in either a positive or negative way (Godzick, et.al 2011). Therefore, it requires working on the methods that increase students' motivation to learn. Studies which were conducted by Blankenship and Margarella (2014) and Godzick, et.al (2011) on students' motivation documented that students were motivated and engaged in learning when using a technology-supported learning environment. Particularly, the study by Godzick, et.al (2011) indicated that students' motivation and engagement improved by 9% after the intervention period. In the same manner, Lam and Pennington (1995), and Pennington (1991) reported using newer technologies like: Wike, Blog, Google Docs potentially increased not only learners' motivation but also their creativity in composing texts. Similarly, in the current study, students showed good improvement in their motivation towards writing argumentative essays after the manipulation of collaborative writing projects using Google Docs. Halsely (2007) also recognized that all students might not prefer using technology as the best technique, but notes that their enthusiasm will be higher when they know there is a motive behind their writing and posting their works on the internet. The students' motivation and responsibility will keep increasing when they understand that there are real

readers who will read their writing works. Hence, teaching writing, specifically, using Google Docs in the collaborative learning environment in and out of the classroom is an effective way to encourage/ increase learners' motivation (Zhu, 2012; Kinzer, 2010)

In spite of the advantages degree of success of any application of word processing in an ESL setting will ultimately be determined by the nature of the users and the circumstances of use, rather than directly by the attributes of the medium (Pennington, 1991). In relation to this, participant students in the current study explained their experiences including (challenges) they faced in using Google Docs to do academic web-based collaborative writing projects. For them, the experience was new and conditions like lack of technical skills, weak internet, and lack of appropriate devices were the main challenges in the process of using Google Docs to do academic web-based writing projects collaboratively even if they witnessed it was a method that initiated them to learn writing through facilitating the process of collaboration without time and place boundary. In addition, they found using smartphone to practice writing at essay level made the process boring since it was not appropriate in typing the writing draft quickly to share to their friends online. Therefore, EFL teachers can use collaborative writing using Google Docs as supplementary method to the conventional way of learning in the situations where the necessary conditions are fulfilled to implement it in order to promote learner's writing motivation.

4. Conclusion

Drawing on the findings of the study above, it is possible to conclude that collaborative writing using Google Docs results in a positive outcome on students' writing motivation with some unpleasant experiences influencing the process. Therefore, EFL teachers can use it as an alternative method to or side by side with the conventional way of teaching (face-to-face collaborative writing) since motivation is a necessary precursor of learners' overall performance. Use of Google Doc was found boring for some students to type / practice writing at essay level using smart phone. Hence, that the study did not focus on device specification in using Google Docs to teach students argumentative essay writing stood to be the gap observed in the present research. Therefore, future researchers can conduct a more detailed study by making device specification for instance computer mediated among other technological devices.

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