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The Contribution of Collaborative Corpus-based Practice to Writing Improvement

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ABSTRACT

This research study was aimed at examining the potential effect of collaborative corpus-based activities on EFL learners' writing performance. 90 EFL learners participated in the study and were divided into three groups, namely, two experimental and a control group. All students sat for a writing pretest, followed by practicing writing through using Collins COBULID corpus. Finally, they took part in a writing posttest. The two experimental groups received different treatments and the control group received no treatment. That is, the students in the control group worked with the corpus individually and those in one experimental group were exposed to such treatment and enjoyed collaboration among each other. Students in another experimental group only practiced writing collaboratively while using no corpus. Despite the efficacy of both collaborative writing practice and collaborative corpus-based writing practice in enhancing the students' writing, results of ANCOVA showed that students in collaborative corpus-based practice group benefited significantly more than the two other groups with regard to the improvement of writing quality. These findings can have implications for teachers, learners, syllabus designers and textbook writers.

Today, writing has come to be known as an important demanding activity, especially in the foreign context where foreign language learners (EFL) are deprived from the daily English communication as they barely get exposed to another language (Marashi & Dadari, 2012). The research findings show that writing is perceived by some foreign language students (EFL/ESL) as the most difficult language skill (Ong, 2011; Ting, 2003). Even some native speakers find writing a daunting task (Gilmore, 2009). Given the important

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role of writing, this skill has been investigated by many researchers in recent years (e.g., Crosthwaite, Storch, & Schweinberger, 2020; Karimian Shirejini, & Derakhshan, 2020; Lee, 2020; Yu, Xu, Jiang, & Chan, 2020). The reason why writing is perceived by language learners as the most difficult skill is because they are required to possess a threshold level of L2 background knowledge with regard to the subtleties of writing such as rhetorical organizations, appropriate language use or specific words they wish to use with the aim of engaging in communication with their readers (Abu Rass, 2001; Alamargot & Chanquoy, 2001). Moreover, writing is considered one of the essential skills in learning a foreign language whose nature is more known to us than ever (Albrechtsen, Haastrup, & Henriksen, 2008). More specifically, it has to do with the formation and development of an idea, establishing mental representations of knowledge, and of experiencing the subjects (Casanave & Hubbard, 1992).

The second half of twentieth century saw a renewed focus on writing, or written discourse, and teaching of writing so that it came to be known as a legitimate area of inquiry which has to do with a variety of related fields (e.g. applied linguistics and discourse studies). Therefore, writing by nature is highly interdisciplinary. Given the rise of technology, corpus-based instruction has been the focus of many studies. The findings of these studies have shown that corpus-based instruction can serve as an effective technique to improve the learners' writing skills (e.g., Gilmore, 2009; O'Sullivan & Chambers, 2006; Sun, 2007). Yet, very few, if any studies have examined the potential effects of collaborative corpus-based practice on the quality of writing. As a result, this study is aimed at exploring the possible impact of collaborative corpus-based practice on English as Foreign learners' writing performance. Corpus linguistics claims to be of use when it comes to the teaching of writing skills since it can show the patterns of authentic language use by analyses of actual usage.

Moreover, this study examines the contribution of collaboration to the development of L2 writing skill. Sometime referred to as cooperative learning, collaborative learning is known as a type of communicative learning where collaboration among the students is deemed to yield more meaningful interaction (Richards & Schmidt, 2010). In addition, the studied have found multiple benefits for collaborative learning including an increase in creativity (Dodge, 2002) and self-esteem (Kohonen, 1992). The use of collaborative corpus-based practice to improve L2 writing is fed by the rationale that an increase in interaction among the learners and more support from peers results in more effective learning of L2 writing skill. Moreover, the theory of Zone of Proximal development (ZPD) and sociocultural theory of Vygotsky are claimed to lend credit to use of collaborative corpus-based activity in the context of teaching of L2 writing.

Instruction of English writing skills to adult students will bring about many challenges to both teachers and learners, some of which are shared by the instruction of any aspect of foreign language teaching (e.g. a large number of students in classes, time constraints, heterogeneous groups of students in terms of their aptitude and motivation, and generally having no previous experience and (or) practice of language use in the L1) (Sánchez, 2013). Opposite to what is commonly believed, listening or speaking are not actually the most challenging skills on language learning test. Data shows that the students failing in the writing section of the language learning test outnumber the students who fail in other language skills (Atkinson, 2003). Sometimes, it is believed that it is not necessary to invest extensively in developing good writing habits as adult learners should often use the language immediately. Furthermore, the teacher needs to make writing meaningful, with the aim of making learners perceive this skill as a means of meeting their language needs. In particular, corpus linguistics and the software programs employed to analyze corpora can give us a worthwhile tool through which L2 teachers can teach second/foreign language, bringing about benefits for both teachers and learners (Biber & Conrad, 2001).

In the words of Tribble (2002), a large number of studies have pushed for the incorporation of corpus component in writing teaching from a teacher's perspective. Put it other way, the argument was put forth as to how teachers are able to develop instructional materials and activities which are related to a

corpus-based orientation. In contrast, as pointed out by Tribble, (2002), scant attention has been given to the examination of learners' collaboration in the use of corpora and learners' attitudes with regard to the incorporation of collaborative use of corpora in the EFL writing classroom. This study is also concerned with examining students' collaboration and how such collaboration makes contribution to L2 writing development. A review of the previous studies (e.g., Crook, 1994) have indicated that collaboration positively impacts students' writing. Moreover, some research studies (e.g., Gaskell & Cobb, 2004; Gilmore, 2009; O'Sullivan & Chambers, 2006; Sun 2007) so far have investigated the effect of corpus-based practices on the quality of writing and various areas linked with writing. Moreover, a look at the literature shows (e.g., Gilmore, 2009; Kuiken & Vedder, 2002; Storch, 2005; O'Sullivan & Chambers, 2006; Sun 2007; Gaskell & Cobb, 2004) that the impact of collaborative corpus-based activities on the writing performance of EFL learners has been the focus of no studies. Consequently, this study is aimed at probing the potential positive effects of collaborative corpus-based practice on the writing performance of Iranian EFL learners.

Research Questions

In line with the purposes of the study, the following research questions are stated:

Q1: Does collaborative writing practice significantly affect EFL learners' writing performance?

Q2: Does collaborative corpus-based practice significantly affect EFL learners' writing performance?

Q3: Is there any significant difference between collaborative writing practice and collaborative corpus-based practice on EFL learners' writing performance?

2. Method

2.1. Participants

At first, the researcher selected eight intact classes each with 15 students and a total of 120 intermediate learners, non-random sampling method. All of these students took part in an Oxford Placement Test (OPT). The aim was to choose a homogenized sample of participants with respect to their overall language proficiency, using the result of OPT. As a result, based on the descriptive statistics of the OPT scores, 90 participants whose proficiency test scores ranged from 28-36 (intermediate) were selected as the study sample. Then, they were categorized into three groups as follows: two experimental groups and one control group. All students were learning English as a foreign language (EFL). They were 16 to 24 in age. These students participated in a 2-hour session twice a week. In total, based on the objectives of this study, the writing course was presented in 10 sessions.

2.2. Instruments and Materials

To address the objectives of the present study three instruments were used a description of which follows:

2.2.1. Oxford placement test (OPT)

At the beginning of the study, OPT was administered in order to ensure the participants' homogeneity in terms of English language proficiency. Oxford Placement Test (OPT) (Edwards, 2007), as a proficiency test, contains 60 items which test the English learners' proficiency. The participants' performance is measured through their scores which show their level of language proficiency from beginners to high advanced as follows: 1-17 (Beginner), 18-27 (Elementary), 28-36 (intermediate), 37-47 (Upper-intermediate), 48-55 (Advanced) 56-60 (high advanced). The participants' OPT scores was in line with their level of proficiency (intermediate).

2.2.2. Writing pre-test and post-Test

All three groups sat for a writing pretest in which the participants needed to write an essay on a topic they had to select among 50 essay topics. These topics had been extracted from the internet with the aim of making sure that all students were not significantly different in terms of their writing performances before the treatment. As for the selection of the topics, at the beginning, 50 selected topics were assessed by three experienced L2 teachers by rating the topics from the least appropriate indicated by 1 to the most appropriate indicated by 5. In the next step, the scores were added up to derive the scores for each topic. Accordingly, 20 most appropriate topics turned out the meet the standards. Then, these topics were given to students, who were asked to rate them in accordance with the most interesting and least interesting ones. More specifically, the participants were provided with the topics and asked to rate them on a Likert scale as follows: 1= I hate this topic. 2 = I do not like this topic. 3 = I like this topic. 4 = I really like this topic. 5 = I love this topic. Then, all the scores earned on each topic by all the participants were totaled. As a result, 11 popular topics with the highest scores were chosen. The most popular topic was chosen for pretest and posttest. Out of other selected topics, 10 topics were used in the treatment to which the groups were exposed as delineated in the procedure section. The selection of favorite topics was driven by the fact that the students would be more eager to write about topics they are interested in. Moreover, familiarity with topic would make sure that the topical knowledge of participants would be captured and therefore, lengthier essays would be elicited. On both pretest and posttest, the students were provided with 60 minutes to write a 200-word essay about the given topic.

2.2.3. Scoring scheme

The writing tests were scored drawing on a scoring scheme by Wang and Liao (2008) where there are 5 criteria, including Focus, Elaboration/Support, Organization, Conventions, and Vocabulary, each including 5 item descriptors. The maximum score obtained based on the scoring scheme is 25.

2.3. Materials

2.3.1. Collins COBULID corpus

As an extensive database of English language, the Collins Corpus has over 4.5 billion words and it consists of a variety of written material taken from various websites, journals, newspapers, magazines and volumes of books published around the world. It also contains various spoken material taken from different media including radio, TV and everyday conversations. The Corpus is updated with new data every month. To use the corpus, the researcher briefed the students on Collins COBULID Corpus.

2.4. Procedure

At first, OPT was administered to 120 participants, who had been chosen based on convenient sampling. The results of this corpus were used to choose a homogeneous sample containing ninety subjects, who were randomly categorized into three distinct groups each with 30 learners. Then, the three groups received a writing pretest, which asked the participants to write an essay about a topic chosen from among 50 essay topics. In the next stage, two of the groups were randomly selected as the experimental groups and the other as the control group. Procedure started off with the introduction of Collins COBULID corpus to the students in one experimental group and those in the control group. Given that this study was aimed at examining the impact of *collaborative* corpus based practice on the quality of the participants' writing in

three groups, namely the experimental group, the control group and the group involved in *collaborative* corpus based practice, engaged in practicing writing through using Collins COBULID corpus. The only difference was that in the control group the participants worked with the corpus while those in the experimental group were exposed to such treatment while collaborating with each other. The participants in the third group took part in collaborative writing practice while using no Collins COBULID corpus. All students in three groups sat for a writing post-test after the treatment. The results were used to explore the research questions.

3. Results

3.1. Investigating the First Research Question

The first research question was about effect of collaborative writing practice on EFL learners' writing performance. In order to estimate the effect of collaborative writing practice on the writing of EFL students, the writing scores of the group of participants receiving collaborative writing practice before and after instruction were compared. Table 1 shows the writing scores of this group before and after collaborative writing practice.

Table 1
Writing Scores of Students before and after Collaborative Writing Practice

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	12.0000	30	2.95950	.54033
	Posttest	14.9000	30	3.27319	.59760

Before collaborative writing practice students had a writing mean score of 12.00 (SD=2.95) and after collaborative writing practice they had a writing mean score of 14.90 (SD=3.27). Table 2 shows the results of paired samples t-test between writing pretest and posttest of group of participants receiving collaborative writing practice. As it will be shown in Table 6, all the data of the study enjoyed normal distribution and there was concern for the use of paired samples t-test as a parametric test.

Table 2
Results of Paired Samples t-test between Writing Pretest and Posttest of the Group of Participants Receiving Collaborative Writing Practice

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	pretest - posttest	-2.90000	.75886	.13855	-3.18336	-2.61664	-20.931	29	.000

Results of paired samples t-test showed that there was a significant difference between the writing performance of students before and after collaborative writing practice (t=20.93, P≤0.05). Therefore, collaborative writing practice positively and significantly affected the writing ability of Iranian EFL students.

3.2. Investigating the Second Research Question

The second research question was about effect of collaborative corpus-based practice on EFL learners' writing performance. As in previous section, the effect of collaborative writing practice on the writing of EFL students was estimated, by comparing the writing scores of the group of participants receiving collaborative corpus-based practice before and after instruction. Table 3 shows the writing scores of this group before and after collaborative corpus-based practice.

Table 3
Writing scores of students before and after collaborative corpus-based practice

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	12.0000	30	2.14958	.39246
	posttest	16.9667	30	2.53912	.46358

Before collaborative corpus-based practice students had a writing mean score of 12.00 (SD=2.14) and after collaborative corpus-based practice they had a writing mean score of 16.96 (SD=2.53). Table 4 shows the results of paired samples t-test between writing pretest and posttest of group of participants receiving collaborative corpus-based practice. As it will be shown in Table 6, all the data of the study enjoy normal distribution and there was concern for the use of paired samples t-test as a parametric test.

Table 4
Results of Paired Samples t-test between Writing Pretest and Posttest of the Group of Participants Receiving Collaborative Corpus-based Practice

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	pretest - posttest	-4.96667	.71840	.13116	-5.23492	-4.69841	-37.867	29	.000

Results of paired samples t-test showed that there was significant difference between the writing performance of students before and after collaborative corpus-based practice ($t=37.86$, $P\leq0.05$). Therefore, collaborative corpus-based practice positively and significantly affected the writing ability of Iranian EFL students.

3.3. Investigating the Third Research Question

To investigate the third research question of the present study which was about the comparative effect of collaborative corpus based practice and collaborative writing practice on EFL learners' writing performance an ANCOVA had to be run. Before running ANCOVA descriptive statistics of the groups were checked. Table 5 shows the descriptive statistics of the groups of the study.

Table 5
Descriptive Statistics of the Groups of the Study

		Mean	N	Std. Deviation	Std. Error Mean
Collaborative writing practice	Pretest	12.0000	30	2.95950	.54033
	Posttest	14.9000	30	3.27319	.59760
Collaborative corpus-based practice	Pretest	12.0000	30	2.14958	.39246
	Posttest	16.9667	30	2.53912	.46358
Control	Pretest	12.1333	30	1.97804	.36114
	Posttest	13.1000	30	2.23375	.40783

As seen in Table 5, before collaborative writing practice students had a writing mean score of 12.00 (SD=2.95) and after collaborative writing practice they had a writing mean score of 14.90 (SD=3.27). In the same vein, before collaborative corpus-based practice students had a writing mean score of 12.00 (SD=2.14) and after collaborative corpus-based practice they had a writing mean score of 16.96 (SD=2.53). Control group had a pretest writing mean score of 12.13 (SD=1.97) and posttest writing mean score of 13.10 (SD=2.23). In order to compare the effects of treatments ANCOVA was run on the writing scores. ANCOVA has a number of assumptions which need to be met prior to its application. The first assumption is the normality of data sets. The normality assumption of the collected data in this study was established in using two tests. Initially, One-Sample Kolmogorov-Smirnov Test of normality and then Shapiro-Wilk test of normality were run on the four data sets used in this investigation (i.e. pretest and posttest scores of writing for the control and experimental groups). Table 6 demonstrates the results of One-Sample Kolmogorov-Smirnov Test of normality and Shapiro-Wilk test of normality for the pretest and posttest scores of the three groups.

Table 6
Results of One-Sample Kolmogorov-Smirnov Test of normality for the Pretest and Posttest Scores of Writing for the Three Groups

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Groups	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	Collaborative	.068	30	.200*	.988	30	.973
	Corpus collaborative	.100	30	.200*	.970	30	.532
	Control	.127	30	.200*	.970	30	.530
Posttest	Collaborative	.092	30	.200*	.984	30	.916
	Corpus collaborative	.095	30	.200*	.979	30	.790
	Control	.118	30	.200*	.955	30	.232

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

As Table 6 indicates all the significance levels are above 0.05 showing that the all score sets in this study were all normally distributed (Tabachnick & Fidell, 2013) and therefore, the assumption of normality was met. Next, to check the homogeneity of variances, Levene's test of equality of variances was run. Table 7 displays the respective results.

Table 7
Leven's Test of Homogeneity of Variances

F	df1	df2	Sig.
.152	2	87	.859

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Pretest + Groups

As Table 7 reveals, the significance value is 0.859 which is higher than the confidence level of 0.05 indicating that the error variance of the dependent variable is equal across groups.

Another assumption to be checked was linearity of slope of regression lines. To check the assumption of linearity, the straight-line relationship between dependent variable and covariate for both groups had to be checked (Figure 1).

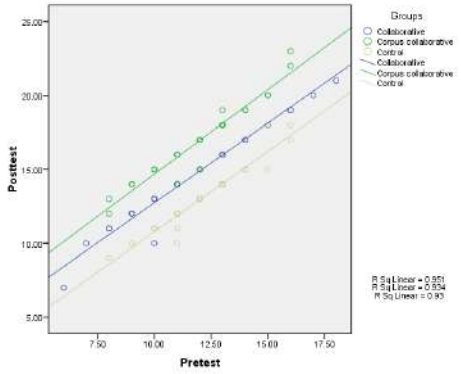

Figure 1. The Linear Relationship between Dependent and Covariate Variables

As it is shown in Figure 1, there was a linear relationship between the dependent variable (posttest) and covariate (pretest) for the three groups; meaning that there was no sign of curvilinear relationship. Thus, the assumption of linearity was met.

The last assumption to be checked was the homogeneity of regression slopes which concerned the relationship between the covariate and the dependent variable for each of the groups. This involved checking to see whether there was a statistically significant interaction between the covariate and dependent variable. If the interaction was significant at an alpha level of .05, this assumption was subject to violation. The visual inspection of Figure 1 suggested that the three lines corresponding to the covariate and dependent variable had no significant difference in their slopes. However, this assumption was further checked using the statistical test of interaction (Table 8).

Table 8
Tests of Between-Subjects Effects Checking the Homogeneity of Regression

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	829.529[a]	5	165.906	372.031	.000	.957
Intercept	8.570	1	8.570	19.218	.000	.186
Groups	4.733	2	2.366	5.307	.007	.112
Pretest	541.983	1	541.983	1.215E3	.000	.935
Groups * Pretest	.360	2	.180	.403	.669	.010
Error	37.460	84	.446			
Total	21087.000	90				
Corrected Total	866.989	89				
a. R Squared = .957 (Adjusted R Squared = .954)						

As it is displayed it Table 8, the significant value (p = .669) for the interaction of grouping and covariate exceeds the significant value of .05, thus, the conclusion can be drawn that assumption of homogeneity of regression slope was not violated. Having established the prerequisite assumptions, the researcher ran an ANCOVA to test the null hypothesis. Table 9 displays the results of ANCOVA.

Table 9
Results of ANCOVA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	829.170[a]	3	276.390	628.503	.000	.956
Intercept	10.362	1	10.362	23.564	.000	.215
Pretest	604.547	1	604.547	1.375E3	.000	.941
Groups	241.517	2	120.758	274.601	.000	.865
Error	37.819	86	.440			
Total	21087.000	90				
Corrected Total	866.989	89				
a. R Squared = .956 (Adjusted R Squared = .955)						

Considering Table 9, it can be seen that the sig value corresponding to the groups post turned out to be smaller than the critical value of .05 (F (2, 86) = 274.601, p= .000<.05, partial eta squared=.865). Therefore, the null hypothesis of the study is rejected and it can be concluded that there was a significant difference between the effects of treatments (collaborative writing practice, collaborative corpus based practice and regular instruction). In order to determine the exact place of difference across the groups multiple contrasts using Bonferroni technique was performed. Table 10 shows the results of multiple contrasts.

Table 10
Results of Multiple Contrasts

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
Collaborative	Corpus collaborative	-2.067*	.171	.000	-2.485	-1.649
	Control	1.946*	.171	.000	1.528	2.365
Corpus collaborative	Collaborative	2.067*	.171	.000	1.649	2.485
	Control	4.013*	.171	.000	3.595	4.431
Control	Collaborative	-1.946*	.171	.000	-2.365	-1.528
	Corpus collaborative	-4.013*	.171	.000	-4.431	-3.595

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Bonferroni.

As seen in Table 10 all the contrasts (collaborative vs collaborative corpus-based/collaborative vs control/collaborative corpus-based vs control) are significant (P≤0.05). In order to determine which groups had more progress estimated marginal means were compared. Table 11 shows the estimated marginal means of the three groups of the study.

Table 11
Estimated Marginal Means of the Three Groups of the Study

Groups	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Collaborative	14.949[a]	.121	14.708	15.189
Corpus collaborative	17.015[a]	.121	16.775	17.256
Control	13.002[a]	.121	12.762	13.243

a. Covariates appearing in the model are evaluated at the following values: Pretest = 12.0444.

Based on the marginal means, the group receiving collaborative corpus based practice had higher writing mean score (M=17.01, SD=0.12) than group receiving collaborative writing practice (M=14.49, SD=0.12) and control group (M=13.00, SD=0.12). Accordingly, it was concluded that collaborative corpus-based practice was more effective than both collaborative writing practice and regular instruction.

4. Discussion

The current study sought to explore the impact of collaborative corpus based practice on the quality of EFL learners' writing. Results of paired samples t-test revealed the efficacy of both collaborative writing practice and collaborative corpus based practice on the quality of the students' writing. However, the results of ANCOVA showed that collaborative corpus based practice significantly enhances the students' writing performance more than collaborative writing practice and regular instruction. Based on the findings of this

study, students and teachers can find collaboration and cooperative activities as useful activities in L2 which improve the students' writing performance. According to Ajideh, Leitner, and Yazdi-Amirkhiz (2016), in collaborative writing learners are engaged in a sort of interaction with others to create a whole together. Also, collaboration in writing leads to texts which are more accurate and of better quality on holistic measures of context, structure, and organization of ideas. According to Swain (2006), collaborative activities provide learners with the opportunities to discuss their language problems and test their hypothesis while making meanings. Furthermore, collaborative writing tasks are useful instructional activities since they increase the learning opportunities in language classrooms (Li & Zhu, 2017). Storch (2013) suggests that collaborative writing tasks are adopted in order to promote interactive classroom environment. As a result, these findings enrich the current literature with regard to the positive contribution of collaboration to L2 classrooms. There are many other studies whose results are in line with the results achieved in the current study (e.g., Henry, Castek, O'Byrne & Zawilinski, 2012; Karabuga & Kaya, 2012; Klingner &Vaughn, 2000; Prawati, 2013; Riani, 2015; Sartawi, Al-Hilawani & Easter brooks, 1998). Besides, the research performed by Li and Kim (2016) suggests that collaborative writing benefits language learning in various ways. First the collaboration process encourages learners to articulate their purpose on language use and interact for meaning and forms with peers.

Collaboration yields multiple psychological benefits that influence all dimensions of learning L2 writing. For example, engaging in collaboration in classroom enhances learners' skills such as critical thinking, problem solving and social interaction by making the students more autonomous and prepared for optimizing learning in individual and group at the same time (Bolukabas, Keskin & Polat, 2011). Such as sense of collective spirit in problem solving and thinking can push the students to develop more positive attitude toward academic affairs. Collaborative activities enable learners to increase their speaking time and enhance learners' autonomy and participation through reducing anxiety and thus boost learners' confidence (McDonough, 2004). Willis (1996) suggested that collaboration makes students interact and challenge their knowledge in a more effective environment.

Consequently, it is fair to argue that engaging in constructive collaboration and more social interaction, L2 learners feel more comfortable and hence more positive. According to the research performed by Dobao and Blum (2013), learners' reaction to collaborative writing experience is more positive as it provides them with more opportunities for active participation. The study also suggests that students benefited from collaborative writing as it improves the grammatical and lexical accuracy of their texts. Thanks to this positive conditions, learning caused by collaboration risk-taking and creativity in the L2 learning process receive a boost (Dodge, 2002).This, in turn, enhances self-esteem (Kohonen, 1992). Henry, Castek, O'Byrne and Zawilinski (2012) assert that collaborative participation in a group can boost the participants' motivation, improving their behavior toward studying. Furthermore, Collaborative tasks put students at the center of the learning process and help them promote their autonomy and genuine participation, and their interpersonal interaction and knowledge construction could be enhanced via this way (McDonough , 2004; Storch, N., & Wigglesowrth, 2010). All these positive outcomes of collaboration and cooperation provide the learners with an opportunity to improve their writing. This can contribute to the development of more positive attitude toward L2 learning.

The positive contribution of collaboration to the enhancement of L2 writing can also have to do with the strong theoretical support with regard to the role of collaboration in education. As pointed out by Dodge (2002), thanks to collaboration, individuals dare to go beyond their linguistic comfort zone by extending their zone of proximal development. Through sharing their individual resources, they are able to scaffold each other and attain a level of performance that is beyond their individual level of competence (Ohta, 2000; Swain, 2000). Collaborative writing tasks enable learners to share linguistic resources, as a form of "collective scaffolding" that help learners manage learning tasks that are cognitively more demanding (Scott & de la Fuente, 2008). Vygotsky (1978) maintains that Zone of Proximal Development

(ZDP) refers to the distance between the current actual developmental level indicted by independent problem solving and the level of potential development as indicated by the ability to solve problem under adult dynamic assessment or in collaboration with more capable peers.

According to Vygotsky, these zones of development play an important role in learning. In other words, striving to acquire new knowledge, individuals receive support from more knowledgeable individuals who serve as scaffolding for less knowledgeable individual. As another component of the treatment, this study used corpus-based activities to teach L2 writing. There is an agreement among researchers that corpus data enrich the process of learning language and is considered essential in learning and teaching (Huang, 2011). Corpus-based method could contribute to the field of language learning and teaching regardless of the level of proficiency of the learners. Corpus assists learners to face authentic and common language and aid teachers to prepare their teaching materials in an interesting and authentic manner. It offers flexible learning strategy when handled properly, and results in effective and efficient learning outcomes. As stated, it is believed that the application of real and authentic materials in corpus-based instruction provides the students with rich input, contributing to the development of writing competence (Thurstun & Candlin, 1998).

The application of authentic materials yields multiple benefits for L2 learners such as enhancing learners' grasp of particular uses of target words in various contexts and (b) building up their L2 linguistic repertoire (Yoon & Hirvela, 2004). Experiencing with different kinds of authentic materials make contribution to the development of L2 writing (Yoon & Hirvela, 2004). Moreover, corpus generated material can make the L2 learners familiar with correct use of words and collocations. For example, (Jabbour, 2001) believe that the most common words and their combinations must form the backbone of instruction.

5. Conclusion

This study can have implications for all those involved in L2 teaching and learning including instructors, learners and syllabus designers and textbook. In fact, being aware of the corpus- based activities as well as appropriate application of them can bring about many benefits to all teaching domains. It follows that all teachers do well to know that such a familiarity will contribute to their ability to enhance the learners' levels of writing proficiency. Knowledge of the role these materials can play in improving learners' writing performance contributes to the enhancement of teachers' inferential abilities, increasing their deep understanding of teaching. Moreover, EFL learners need to have understanding of the positive impact of corpus-based activities and their contribution to writing performance as one of the essential skills of the language. These findings could be helpful to material developers and syllabus designers in that they would teach writing more effectively if they take into account the role of corpus-based activities in learning L2 in general and writing performance in particular. Accordingly, a variety of materials which lend themselves to corpus-based activities need to be provided for learners. This study was aimed at shedding light on the impact of using collaborative corpus-based activities on writing performance of EFL learners. The results of ANCOVA showed that using collaborative corpus-based activities in the writing class could significantly impact EFL learners' writing ability. To gain a more comprehensive picture of the contribution such activities make to L2 learning, further studies can be suggested as follows: A similar study with more sessions can be conducted so that the researcher examines the long lasting effect of the treatment. It could be hypothesized that more sessions or longer periods of time would yield potentially different results. Some different variables including cultural background, different gender, personality factor, social variables, attitude and beliefs may have contributed to the results of this study. Therefore, more studies need to consider these factors. The same study could be done on male EFL learners for purpose of comparing the results with those of the females. Therefore, gender can be taken as a moderator variable in another study. More studies should be conducted to shed light on whether there is a possible cause and effect relationship

between corpus-based activities and another dependent variable. The participants in this study were all intermediate students. A similar research need to done with other proficiency levels.

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