

Technology: A Better Teacher in Writing Skill

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Abstract—Although CALL (computer assisted language learning) has long and distinguished history, it is still in its infancy on some aspects. Since writing is one of the inevitable parts of both academic and daily life, the researchers designed the present study to investigate the effect of technology namely English correcting websites in influencing the accuracy of the writing performance of 60 EFL intermediate students. To come up with an answer to the research questions, participants whose scores were one standard deviation above and below the mean in PET writing part 2 were selected. Then, they were assigned into experimental and control groups. The treatment which was motivating students to consult the English correcting websites as they were writing their writing assignments was given in the experimental group and in the control group; participants received the traditional teacher given feedback. The results showed statistically significant differences in students' performance suggesting experimental group outperformed the control group. The results have interesting implication for methodology, testing, and materials development.

Index Terms—CALL, teacher given feedback, technology given feedback, intermediate EFL learners

I. INTRODUCTION

The rapid evolution of technology has affected learning in many aspects. It has immensely altered L2 learning and transformed the way in which people communicate. It has expanded the communication system and effectively revolutionized our society. Computers made it possible for vast amounts of information and can undoubtedly facilitate trend as a means of learning. It can also provide instant feedback to learners to enhance their writing ability. EFL teachers can make use of different strategies to maintain learning opportunities for the learners. As Richards and Ranandya believe, there is no doubt that writing is the most difficult skill for L2 learners to master.

Technology and English language education are highly related to each other (Singhal, 1997). During the sixties and seventies of the last centuries one way for acquiring English in institutions was English language laboratories. Teachers could see the learners' interaction through a control panel. Acquiring the second language immediately through verbal behavior was an advantage of this method. Practicing more was a crucial aspect of increasing learners' ability in different types of language skills. Although this technique could help learners to acquire L2, it was tedious for learners to some extent (Singhal, 1997).

Graddol's study (2000) suggests that one decade after 2000, the number of English learners increased. The forecast points to a surge in English learning, which has reached to its maximum in 2010. The same study indicates that over 80% of information stored on the internet is in English.

Jakoborits (1970) claimed that some factors influence language learning to deferent degree, such as aptitude (33%), sentiment (33%), intelligence (20%); and other items (14%). He also stated that aptitude in learning a foreign language has a relation with motivation in learning the language.

Using email can leave an important effect on learners' writing enhancement. By using email students learn how to respond to their incoming messages using some formal statement and meaningful learning. They can distinguish the differences of academic English and general English and they can realize how to use it in different situations (Singhal, 1997).

In second language learning, Wang (1993) compared the discourse of ESL student's dialogue journals written in both email and traditional paper format. She found that those who use email journals wrote better than the other group. By an analysis of discourse of ESL learners' in email and traditional paper format, Wang understood that learners using email wrote better and greater amount of text, and used various language functions than traditional method (writing on a paper)

Satio (1994) and Ferris (1995) reached similar conclusions based on their surveys of student's attitudes towards feedback in an ESL context. The results of the survey indicated that surface level correction was proved to be an effective way in reducing the errors in writing.

In a related study, 72 university ESL students' preferences and attitudes toward error feedback were investigated by (Ferris and Roberts, 2001). Problems with verbs with preference rate of 81% were considered as the most required areas

for error correction and word choice and sentence structure with 81% and 68% rate of preference were at the second and third rank. Noun endings or article usage were the least preferred area for error correction. Generally, 56% of students considered grammar problems as the most serious element that affects their writing negatively. However, just 10% thought differently and considered organization as the most need area for error correction. As for feedback preferences, all the respondents found error correction necessary.

Chang and Swales (1999) investigated specific discourse and sentence-level writing skills of highly advanced non-native speaker students. They indicated for discourse and sentence level linguistic features to be noticed by even advance students, it is necessary to direct learners' attention to those areas using different techniques one of which is error correction. Chang and Swales concluded the explicit instruction in advanced academic writing and text is needed. Similarly, Ellis (1990) believed that formal classroom teaching with its emphasis on linguistic accuracy will engage the learner in planned discourse and develop the corresponding type of competence.

In a series of studies, Truscott (1996, 1999, and 2007) pointed to the fact that there was no sufficient research in favor of grammar correction. He referred to many studies which couldn't actually support grammar correction for different reasons such as the absence of control groups and delayed posttests or the use of grammar exercises as their only writing tasks. This claim caused criticisms on the part of the proponents of grammar correction (Ferris, 1999, 2004) and some researchers tried to generate research to counter the conclusions (Ferris & Roberts, 2001; Chandler, 2003; Bitchener 2008; Bitchener et al., 2005,2008, 2009,2010; Rahimi, 2009; Sheen et al., 2009) and after each of their attempts Truscott has responded with critiques claiming that their work fails to demonstrate that error correction has any benefit (Truscott 2004, Truscott & Hsu, 2008).

Many researchers investigated the efficacy of different feedback types on students' writing accuracy. For example, Bitchener, Young, and Cameron (2005) found that direct error corrections of any type; oral or written have a greater effect on accuracy over time, They also found that the combined feedback option facilitated improvement in some error categories but not others, moreover, they believed that upper intermediate L2 writers can improve the accuracy of their use of rule-governed linguistic features if they are regularly exposed to oral and written corrective feedback.

II. RESEARCH QUESTIONS

The following research questions were set to find the answer:

1. Is there any statistically significant difference in learners' writing performance in control groups as they received the traditional teacher given feedback?
2. Is there any statistically significant difference in learners' writing performance as they received technology driven feedback in experimental group?
3. Is there any statistically significant difference in the writing performance of intermediate EFL students that consult with English correcting websites and those who consult with teachers?

III. METHODOLOGY

In order to find answers to the aforementioned questions the following procedure was taken.

A. Participant Selection

In order to select the participant that confirm the representativeness of the target population, PET (Preliminary English Test) was used. Participants who were one standard deviation above and below the mean were selected as intermediate participants. This was done to ensure the homogeneity of the groups. Then, the participants were assigned into experimental and control groups

B. Instruments

PET: as it was mentioned PET (Preliminary English Test) was used as participant selection instrument. The second writing task which was asking students to write 100 words about a topic was chosen. Then students' performances were analyzed using the writing band scale of the aforementioned test.

Topic familiarity questionnaire: in order to ensure that students will feel confident at writing about the topic and that their writing performance will not be affected by the nature of the topic, a topic familiarity questionnaire (Appendix A) was handed to ensure that students are confident at writing about the topic.

English correcting websites: in the experimental group, the teacher introduced English writing practice and websites such as online text correction and spellcheck plus. Com and asked the students to surf on net and find any web sites that they think may help students and then introduce them to the class so that not only the teacher helps them in how to use the websites but also other students learn about the web sites and in this way teacher could make sure that all students know different websites by which students could get assisted in practicing the accuracy of their writing.

C. Procedure

After participants' assignment into control and experimental group, and after determining the topics on the basis of their answers to the topic familiarity questionnaire, students were given the topics. Teachers in either group were given lesson plans that signify the same learning and teaching approach to writing. Teachers introduce the components of a

paragraph. Students are familiar with the structure of a paragraph writing so the focus of the study was only participants' accuracy of language. Before initiating the main study, and before going through the treatment stage, they were asked to write about two topics with a two week time interval as a pretest chosen from topic familiarity questionnaire.

Three raters were asked to rate the accuracy of the participants' performance according to PET writing scale. The average of their score on the two writings on the topics was taken as an index for their pretest token. The inter-rater reliability was calculated to ensure the reliability of the decisions made on the pretest stage. Teachers taught the participants' on the preplanned lesson plan. In experimental group, teachers were supposed to ask students to write and then the teacher highlight the problems they had in their writing and then they were introduced to check the problems they had with writing practice website like online text correction, spellcheck plus. Com, etc. They were asked to keep a record of the problems. In the control group, learners received the traditional approach towards writing feedback; teacher's correcting the mistake. As a post test, the learners were asked to write about the chosen topics from the topic familiarity questionnaire. The performances were rated according to the PET writing scale. They were given scores respectively.

IV. DATA ANALYSIS AND RESULTS

In order to compare the mean number of the participants' across groups, two paired sample T-tests and one independent sample T-test was used. The results of the T-test display the mean difference from pre-test to post test of each group in doing so the researcher investigated if the treatments; both the CALL (Computer assisted language learning) and traditional one boosted students' performance from pretest to posttest of each group. The independent T-test between the post test of the experimental group and that of the control group identified which treatment worked better. The results are displayed in the following sections.

A. Participant Selection

For participant selection, three trained raters were asked to rate the learner's performance and inter-rater reliability was calculated to ensure the reliability of decision making process. The results are displayed in Table 4.1

TABLE 4.1
CORRELATIONS AMONG RATERS

		rater1	rater2	rater3
rater1	Pearson Correlation	1	.875**	.757**
	Sig. (2-tailed)		.000	.000
	N	80	80	80
rater2	Pearson Correlation	.875**	1	.674**
	Sig. (2-tailed)	.000		.000
	N	80	80	80
rater3	Pearson Correlation	.757**	.674**	1
	Sig. (2-tailed)	.000	.000	
	N	80	80	80

** Correlation is significant at the 0.01 level (2-tailed).

The scores given by each rater on writing were entered into SPSS program and a correlation coefficient was calculated between them. Table 4.1 gives the correlation coefficient between each of the three possible pairings of ratings. These are estimates of the reliabilities for each set of ratings as they were assigned by the raters in the writing administration. Since these estimates are the reliability of each single set of ratings, and since two or three sets of raters are likely to be higher in reliability when taken together, adjusting to find the reliability of larger numbers of ratings taken together would be logical, possible, and advisable. The Spearman-Brown Prophecy formula can be used for this purpose (Brown, 1996). The adjustment can be applied to any one of the coefficients reported in Table 4.1, but careful approach to all statistics is to use the lowest estimate. The Spearman-Brown Prophecy formula was applied as follows:

$$r_{xx} = \frac{n \times r}{(n-1)r + 1}$$

$$r_{xx} = \frac{3 \times 0.674}{(3-1)0.674 + 1} = 0.60$$

This result gives a conservative reliability estimate (that is, it is safe and not likely to be an overestimate). Since the reliability estimate is close to one as the ideal estimate, it can be concluded that the writing and the rating procedure adapted by trained raters can be a sound source for reliable information and decision making. The descriptive statistics on raters' rating in the writing is depicted in Table 4.2.

Students whose scores on PET writing part 2 exam were one standard deviation above and below the mean were considered as the intermediate students.

TABLE 4.2

	N	DESCRIPTIVE STATISTICS			Std. Deviation
		Minimum	Maximum	Mean	
PETscores	80	1.00	5.00	2.7750	1.09052
Valid N (listwise)	80				

Among 80 participants, 60 students whose scores were 1.5 to 2.5 were considered as intermediate students. They were invited to take part in the study and assigned into control and experimental group.

B. The Effect of Technology on Accuracy of Writing

In order to investigate the effect of the technology on the participants' writing performance, learners were assigned into two groups of control and experimental groups and learners' score on writing in PET as participant selection were considered as their pretest score. The average of the raters' score in PET was considered as pretest scores. Topics from the topic familiarity questionnaire were chosen and the participants' in each group were asked to write about the topics in either group according to the procedure mentioned in the method section. Paired sample T- test was used to compare the mean differences between pretest and post -test of control and pretest and post- test of experimental group to investigate if there is any statistically significant difference in the performance of the learners in each group from pre- test to post- test stage. The results are depicted at Table 4.3 and Table 4.4

TABLE 4.3
DESCRIPTIVE STATISTICS IN PAIRED SAMPLES STATISTICS

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest experimental	2.5800	30	1.02070	.18635
	Posttest experimental	4.4667	30	.57135	.10431
Pair 2	Pretest control	2.6320	30	1.04077	.19002
	Posttest control	3.3667	30	.85029	.15524

TABLE 4.4
PAIRED SAMPLES TEST

		Paired Differences		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Lower	Upper			
Pair 1	Pretest experimental – posttest experimental	-1.8861	.095	-2.2955	-1.477	-9.436	29	.000
	Posttest experimental							
Pair 2	Pretest control – posttest control	-.7346	.49003	-.91765	-.5516	-8.212	29	.000
	Posttest control							

The results of table 4.3 show that there is statistically significant difference in students' performance from pretest to post-test stage since sig level of both groups (0.000) is significant since it is less than the research confidence interval (0.05). To investigate at which stage students had better performance; pretest or post test stage, the mean of each stage in each group was recalled from table 4.3. As table 4.3 shows the mean of pretest in experimental group was 2.58 and the posttest of the same group was 4.46 and the mean of the pretest of the control group was 2.63 and the mean of posttest of the same group was 3.36. Therefore, students perform better in post tests of the groups meaning that both traditional teacher given feedback and more modern technology given feedback were effective in boosting students' writing performance. The first two research questions are answered.

To investigate which method was more effective in increasing learner's writing skill, an independent sample t-test used to compare the mean differences in post test of control and experimental group. The results are depicted in table 4.5 and 4.6

TABLE 4.5
GROUP STATISTICS

		N	Mean	Std. Deviation	Std. Error Mean
Writing scores	Posttestcontrol	30	3.3667	.85029	.15524
	Posttest experimental	30	4.4667	.57135	.10431

TABLE 4.6
INDEPENDENT SAMPLES TEST

		Levene's Test for Equality of Variances		t-test for Equality of Means		95% Confidence Interval of the Difference				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Writing scores	Equal variances assumed	2.74	.103	-5.88	58	.000	-1.10	.18703	-1.47	-.72
	Equal variances not assumed			-5.88	50.	.000	-1.10	.18703	-1.47	-.72

The results of the table 4.6 show that there is a statistically significant difference in post- test of control and experimental group as the sig level (0.000) of the research is less than the research confidence interval (0.05) meaning that there is a statistically significant difference in traditional teach given feedback and more modern technology given feedback in improving learners 'writing skill. To see in which group learners' performed better, table 4.5 is recalled. The mean of post- test in control group is 3.36 and the mean of post- test in experimental group is 4.46 meaning that technology given feedback helped learners more. The third research question is answered.

V. DISCUSSION

As technology plays an important role in our society, many people can undoubtedly take its advantageous for their daily activities. Communication is one of the most crucial aspects of technology in which individuals are increasingly willing to master it and they have been able to achieve a tremendous amount of objectives through advancement in technology. In addition to communication that is highly used in today's world, enhancement of different types of skills in learning L2 is undeniable.

The present study, tried to investigate the role of technology in writing skill. The outcome of the research revealed that those who utilize different sites related to writing could achieve more proficiency in comparison with those who didn't have any use out of technology. Using spell check plus.com and online text correction enable learners to find their deficiencies and realize the correct form. These sites are few among various types of web based assistance in language learning as the results (Table 4.2) indicate the mean number of the writing performance of both groups underwent significant differences from pretest to post -tests meaning that both treatments; technology driven and teacher given feedback boasted participants writing performance since the sig level of the paired sample t- tests (0.000) are less than the research confidence interval level (0.05). The results of the independent sample t-test on the post tests of the two experimental groups (Table 4.6) indicate that there is a statistically significant difference between the performances of the two groups since sig level of the test (0.000).

The results have important implications for language teaching methodology, materials development and language testing. Since one of the macrostrategies introduced in post method era is maximizing learning opportunities, language teachers should introduce technology in language teaching classes as it increases the amount of language that students keep in touch with.

Besides, the introduction of the web based learning and technology assistant learning can help students get autonomous as they practice to use what benefits they can achieve out of practices in this respect and use what they have at their disposal to open up what they don't know about the language. Material developers also should make principled decisions about what to introduce and how to introduce since these principled decisions will set up different language patterns.

Language testing also is affected by new approaches towards language testing including dynamic assessment but what is missing from the model is the role of technology and the type of information it can elicit about the students' language performance.

VI. CONCLUSION

As mentioned above, using technology in learning a L2 is necessary in today's life. It enhanced learning in the EFL classroom; increases students motivation and can have a positive effect on their writing skill. Therefore, learners can promote their writing ability due to technology rather than traditional principles and can easily see its prominent impact.

APPENDIX A. TOPIC FAMILIARITY QUESTIONNAIRE

Which activities are you confident at?

Choose from the highest confidence to the lowest

	1	2	3
1. Give suggestions and decide on the best suggestion			
2. Giving reasons			
3. Giving instructions			
4. Making decisions			
5. Solving problems			
6. Describing people			
7. Telling stories			
8. Completing incomplete set of information			
9. Organizing information			
10. Giving directions			

REFERENCES

- [1] Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of second language writing*, 17(2), 102-118.

- [2] Bitchener, J., & Knoch, U. (2008). The value of written corrective feedback for migrant and international students. *Language teaching research*, 12(3), 409-31.
- [3] Bitchener, J., & Knoch, U. (2010). The contribution of written corrective feedback to language development: A ten month investigation. *Applied linguistics*, 31(2), 193-214.
- [4] Bitchener, J., Young, S., & Cameron, D. (2005). The effect of different types of corrective feedback on ESL student writing. *Journal of second language writing*, 14(3), 191-205.
- [5] Brown, (1996). Testing in Language Programs. The University of Virginia: Prentice Hall Regents
- [6] Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of second language writing*, 12(3), 267-296.
- [7] Chang, Y. Y., & Swales, J. (1999). Informal elements in English academic writing: Threats or opportunities for advanced non-native speakers? in *Writing: Texts, Processes and Practices*, C.N. Candlin and K. Hyland(eds), 145-167. London: Longman
- [8] Ellis, R. (1990). Instructed second language acquisition: Learning in the classroom: Wiley-Blackwell.
- [9] Ferris, D. (1995). Can advanced ESL students be taught to correct their errors? *CATESOL Journal*, 8, 41-62.
- [10] Ferris, D. (2001). Error feedback in L2 writing classes: how explicit does it need to be? *Journal of Second language writing*, 10, 161-184.
- [11] Ferris, D. (1999). The case for grammar correction in L2 writing classes: A response to Truscott (1996). *Journal of second language writing*, 8(1), 1-11.
- [12] Ferris, D. (2004). The "grammar correction" debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime...?) *Journal of second language writing*, 13(1), 49-62.
- [13] Ferris, D. & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of second language writing*, 10(3), 161-184.
- [14] Graddol: (1997) The future of English, UK: The British council.
- [15] Jakobovits, L. (1970). Foreign language learning: A psycholinguistic analysis of the issues. Rowley, MA: Newbury House.
- [16] Rahimi, M. (2009). The role of teacher's corrective feedback in improving Iranian EFL learners' writing accuracy over time: is learner's mother tongue relevant? *Reading and Writing*, 22(2), 219-243.
- [17] Satio, H. (1994). Teachers' practices and students' preferences for feedback on second language writing: A case study on adult ESL learners. *TESL Canada Journal*, 11, 46-70.
- [18] Sheen, Y., Wright, D., & Moldawa, A. (2009). Differential effects of focused and unfocused written correction on the accurate use of grammatical forms by adult ESL learners. *System*, 37(4), 556-569.
- [19] Singhal, M. (1997). The internet and foreign language education: benefits and challenges. *The Internet TESL Journal*, 3(6). Available: <http://iteslj.org/Articles/Singhal-Internet.html>.
- [20] Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language learning*, 46(2), 327-369.
- [21] Truscott, J. (2007). The effect of error correction on learners' ability to write accurately. *Journal of second language writing*, 16(4), 255-272.
- [22] Truscott, J. (1999). What's wrong with oral grammar correction. *Canadian Modern Language Review/La Revue Canadian des langues vivantes*, 55(4), 437-456.
- [23] Truscott, J., & Hsu, A. Y. (2008). Error correction, revision, and learning. *Journal of second language writing*, 17(4), 292-305.
- [24] Wang, Y. M. (1993). E-mail dialogue journaling in an ESL reading and writing classroom. Unpublished Ph.D. dissertation, University of Oregon at Eugene.
- [25] W. Renandya and J. C. Richards. (2002). Methodology in language teaching. Cambridge: Cambridge University Press.

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