The Effect of Collaborative Asynchronous e-mailing on EFL Learners’ Writing Ability

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ABSTRACT

The present study attempted to discover the impact of collaborative learning through e-mail on the improvement of the writing ability of Iranian advanced level EFL learners. In order to have homogeneous groups, all 40 participants of the study were administered a TOEFL proficiency test, and then they were randomly assigned to comparison and experimental groups. Since the study concentrated on writing ability a writing pretest was administered to both groups to make sure they were also homogeneous in terms of writing ability. In the comparison group, the participants were asked to write their paragraphs individually, while the participants of the experimental group were supposed to write their paragraph collaboratively through e-mail. After 10 sessions of treatment, a writing posttest was administered to both groups. The results of related statistics indicated that the participants of the experimental group had a significantly better performance in their writing ability compared to the comparison group. It was concluded that collaborative e-mailing might improve the writing ability of EFL learners. The implication of the study for syllabus designers and language teachers is to include e-learning techniques and activities if they wish for their learners’ enthusiasm for learning activities.

Keywords: E-mailing; writing skill; collaborative learning.

1. Introduction

Writing skill is an important part of communication. It allows you to communicate your message with clarity and ease to a far larger audience than through face-to-face conversations. Widdowson (1990) asserts that “writing is a communicative activity and so is carried out in accordance with certain general principles which underlie the use of language in communication” (p.26). On the other hand, writing is the most difficult skill for many of the foreign/second language learners. According to Richards and Renandya (2002) generating, organizing and translating ideas into comprehensive written forms are the main difficulties which most of the language learners encountered with them. These difficulties are highlighted when the students’ language proficiency is weak.

Due to the advances in technology, transportation and the need of communication among people with different cultures, language skills especially writing and speaking are recognized as important skills in business interactions (Kaplan, 2002). Advances in computer technology, having access to internet and e-mail influence language teaching and learning and bring the technology in the classroom. Teachers tend to
use computer-assisted language learning strategies to make the learning environment more enjoyable. On the other hand students are more interested in using different technologies in the classroom. Through the use of technology and having access to internet and e-mail students are able to improve their writing abilities. Internet enable them to read on-line texts, have both oral and written interactions with different people in different geographical locations, have access to writing centers and give feedback on their essays and compositions. Among the internet facilities, e-mailing is a good and simple technique which can be incorporated in the learning environment (Warschaur & Whittaker, 2002).

Thus, because of the importance of writing and because collaborate learning especially on-line form are rarely discussed in Iran' education context, the present study aimed to investigate the impact of collaborative e-mailing on the development of Iranian EFL learners' writing skill.

1.1 Review of related literature

1.1.1 Online collaboration

Collaborative learning is broadly defined as “a situation in which two or more people learn or attempt to learn something together,” and more specifically as joint problem solving (Dillenbourg, 1999, p. 1). Roschelle and Teasley (1995) define collaboration as “coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem” (p. 70). Keyser (2000) define collaborative learning as one variety of active learning which divides the learners into different groups with specified roles and tasks to accomplish. As Dillenbourg (1999) described, researchers use “learning” to refer to several different types of tasks and activities:

• Learners studying course books and materials together to be prepared for a test;
• Joint problem solving in which learning is assumed to be the product of the learners’ interactions;
• As a “biological and/or cultural process” that occurs over several years (p. 4); and
• “Learning from collaborative work, which refers to the lifelong acquisition of expertise within a professional community” (p. 4).

Due to the development of information technology, computers and internet play an important role in educational settings especially in the field of language teaching and learning (Järvelä, Hakkarainen, Lipponen & Lehtinen, 2000). Promoting active learning, improving writing skills, cultivating a sense of audience, enhancing the importance of feedback and revision, reducing stress of writing, developing higher order thinking skills and promoting interactions are the advantages of using online collaboration in the EFL/ESL context based on Ewing and Miller (2002).

1.1.2 Previous research studies

A great deal of research has been done to investigate whether the students who experience online learning perform better than those who prefer face-to-face classes in EFL writing courses. Many studies (Johnson, Johnson & Holubec, 1990; Bruffee, 1993; Slavin, 1996) indicated that online collaboration leads to higher performance, better thinking styles and better motivation. In her study, the role of online collaboration in promoting ESL writing, Choi (2008) showed that online collaboration through e-mail made the learning process more interesting for the students and subsequently lead to better performance of the students in their writing activities. Ho (2000) conducted a research to investigate the effect of collaborative e-mailing on the writing performance of the students of two schools in Singapore and Birmingham. Finally she revealed that the use of collaborative e-mailing helped the students to develop their confidence, language skills and creativity. Moreover, she found that students were more positive and motivated toward writing. In another study, Jor (2004) investigated the effectiveness of online collaboration in developing students' confidence and writing abilities. He used both quantitative and qualitative methods to measure the effectiveness of the course. The result showed a modest increase in students’ progress in writing. In a case study conducted by Greenfield (2003) in Hong Kong, it was stated that collaborative e-mailing enhanced students’ attitude toward writing and creativity. Similarly, Esnawy (2004) indicated that combining in-class and online teaching was helpful for the students as there was more interaction both in-class and out of class, thus enhancing students’ writing abilities.
In the present study, the researcher aimed to investigate whether collaborative learning through e-mail can improve advanced EFL learners' writing ability in the context of Iran education settings.

2. Method

2.1 Participants
The participants of this study were 40 advanced students from an English language institute in Mashhad, Iran, 2017. After administering a truncated version of TOEFL proficiency test, they were randomly assigned in two experimental and control groups. Although both male and female had participated in this study but gender was not considered as a moderator. They were advanced EFL learners who were tested on the effect of collaborative e-mailing. All the participants were in the age-range of 22-36. It should be noted that both the classroom environment and the teacher are the same and the class was held three times a week with each session lasting 90 minutes.

2.2 Instruments
The instruments used in this study included a proficiency test which was the truncated version of TOEFL (TOEFL, published by ETS, 2010) proficiency, a pretest, and a posttest as well. At the beginning of the study since the researcher aimed to apply her treatment on advanced students, they were given a truncated version of TOEFL proficiency test. It includes 40 multiple choice items on structure and written expressions and 30 multiple choice items on reading comprehension. After the participants had assigned in two groups, to make sure of their homogeneity in writing skill a writing pretest was also administered to both groups. To explore the utility and efficiency of the treatment a writing posttest was conducted at the end of the research. In both pre/posttests the participants were asked to write a paragraph based on the same topics between two groups. Since the researcher used a modified version of TOEFL as the proficiency test, it was not verified in terms of reliability, the same is true about the vocabulary pre and post- tests. Additionally, to remove the effect of topic familiarity in both pre-test and post-test two topics were given to each student to write. In pre-test students were supposed to write about the characteristics of a successful person and the advantages of shopping on-line and in post-test they were asked to write about the advantages of studying abroad and characteristics of a good roommate. The allocated time for proficiency test was 100 minutes and that of pre-test and post-test was 45 minutes. It is worth mentioning that since the modified version of a TOEFL proficiency test was published by ETS (2010) is near original specimen of the TOEFL test, it is not going to be piloted and verified in terms of reliability.

Two raters scored the papers. One rater was the researcher and the other one was an experienced teacher in teaching writing skills especially those of 8 TOEFL courses. The raters used analytic scales for rating compositions of both groups. The average score of two topics by two raters was considered as the main score of each participant.

The assigned text book for this course was “Cracking the TOEFL iBT” by Vanessa Coggshal (2011) which is mostly a text book with a process oriented approach to teaching language skills, especially writing with a focus on principles of writing paragraphs.

2.3 Procedure
Since the purpose of this research was to investigate the impact of collaborative e-mailing on improvement of writing ability of advanced EFL learners, an experimental method was selected. After administrating a modified version of TOEFL proficiency test (as described before) all the 40 participants of the study were randomly divided into two groups of experimental and control twenty students in each group). In order to make sure they are homogenous in terms of writing, a writing pre-test was administered to both groups. To remove the effect of topic familiarity two topics (as described before) were given to each students. Two rates scored them and the mean of the scores of two raters of two topics was considered as the main score of each student. In order to fulfill the research the treatment applied in 10 sessions between two experimental and control groups. In control group, every session learners were given a topic to write about individually, while in experimental group, the students were supposed to write collaboratively through e-mail. After giving instruction on how to work collaboratively through e-mail, in groups of four, students...
sent their writing tasks to each other and evaluated, reviewed and commented on their papers. The 
researcher received the copies of their e-mails which they sent to each other. The topics given to 
experimental group were similar to those given to the control group. After the treatment, a writing 
post-test was administered to both groups to measure the effectiveness of the treatment. Like the 
pre-test two topics (as described before) were given to each students to write, two raters used the 
analytic rating scores to score the papers and finally the mean score of two papers by two raters 
was considered as the main score of each student.

3. Results

After administrating the homogeneity test to 40 students, descriptive statistics was obtained. Table 1 
demonstrates the descriptive statistics of this test. The mean and the standard deviation equaled 45.50 
and 5.11, respectively. They were then randomly divided into experimental and comparison groups.

To check the homogeneity of the experimental and control groups at the beginning of the 
experimentation, a pre- test was administrated to both groups. Table 2 summarizes the descriptive 
statistics.

To remove the topic familiarity effect, the inter-rater reliability of the writing pre-test was 
calculated through Pearson Product Moment Correlation which turned out to be 0.91 showing a 
high consistency between the two raters (Table 3).

Regarding the mean scores of two groups there was no significant difference, but in order to be 
sure of close homogeneity of two groups, a t-test was run. It showed that there was no significant 
difference between the experimental and comparison groups in terms of their oral performance. 
Table 4 manifests the results:

As it has been shown in Table 4, the t-observed value for the comparison of the means of two 
groups was 0.85 at 38 degrees of freedom, which was lower than the t-critical of 2.02. Thus it could 
be claimed that the two groups were not significantly different in terms of writing skill before 
undergoing the treatment.

Table 1. Descriptive statistics of the homogeneity test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>SES</th>
<th>Kurtosis</th>
<th>SEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>40</td>
<td>45.50</td>
<td>5.11</td>
<td>0.25</td>
<td>0.16</td>
<td>0.16</td>
<td>0.29</td>
</tr>
</tbody>
</table>

Table 2. Descriptive statistics of the two groups on the writing pre-test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison</td>
<td>20</td>
<td>11.98</td>
<td>3.13</td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>13.01</td>
<td>5.11</td>
</tr>
</tbody>
</table>

Table 3. Inter-rater reliability of both groups on the writing pre-test

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Variance</th>
<th>Pearson product moment correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater 1</td>
<td>13.03</td>
<td>2.75</td>
<td>5.16</td>
<td>0.91</td>
</tr>
<tr>
<td>Rater 2</td>
<td>12.96</td>
<td>2.96</td>
<td>6.01</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Manifests the results

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>t critical</th>
<th>Mean difference</th>
<th>Std. error difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test/Equal variances assumed</td>
<td>0.99</td>
<td>.001</td>
<td>0.85</td>
<td>38</td>
<td>2.02</td>
<td>1.03</td>
<td>1.78</td>
</tr>
</tbody>
</table>
After ten sessions of treatment, both groups were given a similar post-test. Table 5 summarizes the descriptive statistics:

Two raters scored the papers analytically. The Pearson Product Correlation Moment coefficient between the two sets of scores was 0.95 which indicated a high consistency between the two raters (Table 6).

To see whether the treatment was effective or not, the means of two groups were compared through a t-test. As it has been shown in Table 7, the t-observed value was 6.89 at 38 degrees of freedom which was higher than the t-critical of 2.02. Thus, the null hypothesis could be safely rejected at 0.05 level of significance leading to the conclusion that the treatment was effective enough to make significant difference between two groups.

To determine the impact of collaborative e-mailing on the improvement of the writing ability of the participants of the experimental group, a matched t-test was also calculated for the mean scores of the experimental group on both pre-test and post-test. As it is shown in Table 8 the t-observed value for the means of the experimental group before and after the treatment was 9.53 at 19 degrees of freedom which is higher than the t-critical of 2.09 for a two-tailed test at 0.05 level of significance.

A matched t-test was also conducted on the pre and post-test of the control group. As it is shown in Table 9 the t-observed value for means of the control group before and after the treatment was 1.02 at 19 degrees of freedom which is lower than the t-critical of 2.09 for a two-tailed test at 0.05 level of significance. Thus, it could be claimed that there was not any statistically difference between the pre-test and the post-test mean scores of the participants of the control group.

Consequently, based on the above findings, the performance of the participants of the

### Table 5. Descriptive statistics of the two groups on the writing post-test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison</td>
<td>20</td>
<td>14.12</td>
<td>3.25</td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>17.22</td>
<td>6.38</td>
</tr>
</tbody>
</table>

### Table 6. Pearson product moment between two sets of scores

<table>
<thead>
<tr>
<th>Raters</th>
<th>M</th>
<th>SD</th>
<th>Variance</th>
<th>Pearson product moment correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater 1</td>
<td>14.91</td>
<td>2.65</td>
<td>5.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Rater 2</td>
<td>14.85</td>
<td>2.76</td>
<td>7.11</td>
<td></td>
</tr>
</tbody>
</table>

### Table 7. Comparison between variances and means of the two groups on the writing post-test

<table>
<thead>
<tr>
<th>Levene's Test</th>
<th>T-test for equality of means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Post-test</td>
<td>Equal variances assumed</td>
</tr>
</tbody>
</table>

### Table 8. Matched t-test between the pre-test and post-test of the experimental group

<table>
<thead>
<tr>
<th>t-test for equality of means</th>
<th>t-observed</th>
<th>t-critical</th>
<th>df</th>
<th>Sig (2-tailed)</th>
<th>Mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental (pre-test and post-test)</td>
<td>9.53</td>
<td>2.09</td>
<td>19</td>
<td>0.01</td>
<td>4.21</td>
</tr>
</tbody>
</table>

### Table 9. Matched t-test between the pre-test and post-test of the control group

<table>
<thead>
<tr>
<th>t-test for equality of means</th>
<th>t-observed</th>
<th>t-critical</th>
<th>df</th>
<th>Sig (2-tailed)</th>
<th>Mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (pre-test and post-test)</td>
<td>1.02</td>
<td>2.09</td>
<td>19</td>
<td>0.01</td>
<td>2.14</td>
</tr>
</tbody>
</table>
experimental group who were exposed to collaborative e-mailing was significantly better than that of the control group who were exposed to traditional ways of writing.

4. Discussion

As it was mentioned earlier the purpose of this study was to investigate the impact of collaborative learning through e-mail on the improvement of Iranian EFL learners' writing. The findings of the study revealed that those who were exposed to collaborative emailing outperformed those who were exposed to individual writing. The participants of the experimental group took the advantages of web-based applications. Via the e-mail they could interact with each other, read the other participants' writing tasks even off-line, comment about others' tasks, evaluate their compositions and finally be supported and monitored with the content and each other. Through the use of e-mail they became aware of their writing errors and so they had the chance to revise and correct their essays before finalizing them. Generally, using e-mail as a collaborative tool in both language learning and teaching improved the students' performance in writing skill, enhanced their interest and promoted their positive attitude.

Carless (2006) believes that Information technology increases the learners' social awareness and confidence and changes learning to an exciting process. Besides, Roberts (2005) emphasizes using web-based technology and presenting information through e-mail discussion groups provide an environment in which learners from different geographical places can interact with each other and benefit from each other's knowledge and guide. Similarly, it is shown in this study that collaborative e-mailing can be used as a teaching strategy which assists the less able students to promote their writing skill and achieve better scores on their writing exams. In line with this study, Mahmoodi (2015), Aminzadeh and Molaesmaeili (2009) concluded that collaborative learning especially online learning not only can be used as a strategy in teaching language skills but also can be used as a social approach which enables learners to participate in social-learning activities enthusiastically and makes the learning environment enjoyable. In fact, the findings of the present study and these studies highlight the importance of new teaching strategies that help the learners to be autonomous and promote them to share their knowledge and make use of others’ guides. In deed the learners are encouraged to trace their learning in other situations rather than classroom. In another study Mansor (2003) revealed that the students who participate in on-line courses and practice language skills through e-mails ask more questions and use more language functions than those who are exposed to traditional ways. He added that e-mail learning enables teachers to monitor the students' progress and save the class time. In this regard, the findings of the present study is in congruence with the findings of aforementioned studies. However, what is worth mentioning about the findings is the fact that in order to attract the learners' attention, the teachers' should provide teaching strategies which are further up class usual activities. In this way students' interest is more enhanced since they find themselves busy doing something more than a learning activity.

5. Conclusion

Due to the emergence of computer technology, internet and fast pace of change in the communication technology language teachers are interested in using information technology in developing language learners' skills. This may be due to the fact that technology provides a condition in which various skills such as written and oral communication, group work, cooperation and critical thinking can be evaluated through various channels (Warschauer & Whittaker, as cited in Richards and Renandya, 2002). The purpose of the current study was to investigate the impact of collaboration through e-mail on development of students’ writing skill. The results indicated that the use of e-mail group discussion provides an exciting situation in which learners are stimulated to engage in team work activities which involve interaction with a group of people from different geographical locations electronically.

It is hoped that more studies in network language teaching and learning provide a better understanding of collaborative on-line learning. Future research studies can investigate the effect
of collaborative learning through e-mail on other language skills or sub-skills. Group discussion, team composition, amount of teacher intervention in learning process, various web-based tools, group size, and group selection all merit investigation.

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