The Impact of the Asynchronous Online Discussion Forum on the Iranian EFL Students’ Writing Ability and Attitudes

Mohammad Omid Mohammadi ¹, Ali Akbar Jabbari ²*, Alimohammad Fazilatfar ³

¹PhD Candidate Language and Literature, Yazd University, Yazd, Iran
²Associate ProfessorEnglish Department, Faculty of foreign languages, Yazd University, Yazd, Iran
³Associate ProfessorYazd University, Yazd, Iran

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Abstract: This paper focuses on the impact of an asynchronous online discussion forum on the development of students’ ability in and attitudes toward writing in English. To do this, 60 undergraduate students majoring in English were assigned to two experimental and control groups while receiving different types of feedback. Students in the experimental group were required to take part in an asynchronous forum by writing a five-paragraph essay, challenging their ideas and providing feedback based on a pre-designed feedback sheet, whereas students in the control group received traditional face-to-face feedback by the teacher. Analysis of the data obtained through a pre-test, a post-test, and a survey indicated that students’ writing improved significantly in the experimental group, on both lexis and grammar planes, as the results of engaging in replying to peers’ questions, involving in writing by exchanging feedback, and employing self-assessment strategies to revise their own work. Furthermore, they also expressed more positive attitudes toward writing. The study offers implications for L2 writing instruction in EFL contexts.

Keywords: Computer-mediated Communication (CMC); Asynchronous Online Discussion Forum; Technology and Writing; Feedback Provision.

* Corresponding Author.
Authors’ Email Address: ¹ M. O. Mohammadi (mohammadim2011@gmail.com), ² A. A. Jabbari (jabbari@yazd.ac.ir), ³ A. Fazilatfar (afazilatfar@yahoo.com)
Introduction

People are increasingly confronted with technological developments, which have a direct or indirect impact on their daily life activities. Hawkridge (1990) spelled out four rationales for using technology, mainly computers in schools: for social, vocational, pedagogical and catalytic modules.

Regarding the social module, it is believed that generally young people are interested in integrating such skills into the educational program. For the vocational module, they use different technological tools which support them to enter more easily and rapidly into the working life. From a pedagogical module, technological development appears to offer more educational potentials and opportunities than traditional educational methodologies. And finally, the catalytic module is based on the assumption that these technological developments raise the ground-breaking and creative competencies for schools, which imply fundamental alterations at any educational levels and programs, such as optimizing school policy-making, curriculum development, rapid exchange of information, collaborative learning, the ability to eliminate time and space bounds and managing chances to inculcate cross-cultural cooperation. In fact, the advent of computer-mediated communication (CMC) led to the great changes in teaching and learning process.

According to Strickland and O’Brien (2013), there are three basic types of CMC project: telecollaborations refer to the students’ cooperation together within the course of instruction. Students discuss with peers in online small group contact. The second is teletandem exchanges involve the regular interaction of two individuals in an online contact. And the third one is E-twinning projects refer to online school systems collaboration within the European Union.

In this case, Delahunty (2018) stated that the “exponential growth of online learning options has been a boon to higher education where flexibility and convenience has enabled wider participation for increasingly diverse students than would be possible with face-to-face delivery alone” (p.12).

Of the many network technologies which are now being applied in CMC, forums as synchronous or asynchronous web-based discussion environments appear to have great potential as learning tools. According to Son (2008) such technological application can initiate the modernity in teaching and learning process. Moreover, Alibakhshi and Mohammadi (2016) stated that advances in network technologies led to the emergence of virtual worlds to facilitate asynchronous, synchronous, and communication between users.
Therefore, there is a great tendency to modify the way the educational system works.

Despite having the basic foundation and the potentiality of the web-based educational facilities and tools like language labs and computer rooms, forums are not appropriately welcomed in the Iranian educational contexts, even as the elective courses at the universities. Hence, there is a great need to identify and develop the type of environment that best supports the goals of learning language skill specifically writing one. As such, the main aim of the present study is to create an asynchronous online discussion forum environment to open up a new path in teaching writing, in contrast to the dominant traditional face-to-face approach of teaching writing in the Iranian English classes (Asoodar, Atai, Vaezi, & Marandi, 2014).

**Review of the Literature**

**Computer-mediated communication (CMC)**

In the digital era, students are increasingly involved in a wide range of technology-promoted literacy practices in or out of school activities, such as text-messaging, emailing, playing online games, and chatting through social network site (Zheng & Warschauer, 2017, p.1). In the meantime, considering their enthusiasm and even addiction to the use of computer-mediated communication (CMC), different titles have been coined as their epithets by the researchers such as, “Digital Natives” (Prensky, 2001) or the “Net generation” (Tapscott, 2010) who usually participate in online, interactive digital spaces and virtual platforms.

According to Zong (2009) CMC technology meets the qualifications to establish new social arrangements, promotes different educational interactions, facilitates authentic language use, and inspires critical reflection; therefore, mediates and transforms teaching and learning experiences. These findings are in line with other researchers’ views such as Osborne, Byrne, Massey, and Johnston (2018), AbuSeileek (2012), Lee (2011), and Van der Meijden and Veenman (2005), who claimed that there is an extensive interest in the use of CMC because it has benefits in stimulating communication, interaction and socialization. Generally, it has been found to:

- promote a collaborative spirit for students to express their own ideas, opinions and develop freely their comments.
- establish student-centered class.
- reduce students’ anxiety from face-to-face communication.
- improve student’s linguistic performance.
• increase dealing with subtleties of complex course content, critical appraisal and discussion of evidence.

Asynchronous Online Discussion Forum

Online discussion forums or boards as the products of CMC play an important role in the techno-educated age. They are classified as synchronous and asynchronous environments. The former permits users to deal with it simultaneously, while the latter can be reached at anytime and anywhere (Campbell et al., 2008). Discussion boards or forums allow students to communicate their opinions and establish interaction that requires individual reflection and experimental learning. Yanguas (2010) stated that much research in the CMC strand of research has concentrated on written communication, whether synchronous or asynchronous. The asynchronous or synchronous online discussion forum offers students to share thoughts, ask questions and provide feedback, supporting interaction and building communities in online/offline learning environments (DeWert, Babinski, & Jones, 2003; Yang, Yeh & Wong, 2010). Furthermore, Roed (2003) and Smith (2005) labeled synchronous written CMC as a hybrid mode because it displays features of both written and spoken language which is applied by practitioners in the L2 classroom. Blake (2000) highlighted teaching written CMC because it arises a real time interaction in which learners negotiate meaning, amend input and output, respond to feedback and intensify their attention to form, and feel less threatened. Some researchers went into more details and compared the priority of synchronous over asynchronous or vice versa. For example, AbuSeileek and Qatawneh (2013) conducted a study to investigate the impact of synchronous and asynchronous CMC oral discussions on question types and strategies. They found that students who used the asynchronous CMC mode produced significantly more discourse functions pertained to question types and strategies than students in the synchronous group. They also figured out that the asynchronous CMC mode invigorated learners to ask a series of questions which required long answers and looked for more details through examples, clarification, and extension, while the synchronous CMC mode supported question types and strategies which were based on short answers that were not vague and ambiguous. In the same vein, Pinto-Llorente, Sánchez-Gómez, García-Peñalvo, and Casillas-Martín (2017) explored the students’ perceptions on the subject of English Morphosyntax through using some asynchronous tools. The results showed the improvement of students’ grammatical competence in English as a second language. Additionally, they highlighted the opportunity provided to have a greater
autonomy to be able to set and organize their own pace of study and individual learning.

On the other hand, forum platforms were not just for students, they were also used to optimize the teacher training courses. For instance, according to Liaw (2017, p.83), online forum environment is time and cost-efficient and flexible type of communication that is adopted in teacher training programs. Teachers are highly eager to alter the teacher-centered learning environment to student-centered one. They believe that asynchronous online discussion forum can remove time and place restrictions, thus enhancing students’ participation and discussions in learning activities by permitting waiting time for them to respond to each other to generate more thoughtful replies and more qualified absorption of discussed topics. The results of this study were generally consistent with Rains, Brunner, Pavlitch, and Goktas (2016) findings. They pinpointed that one such text-based communication provides time for reflection and claimed the priority of written communication to oral communication when the objective is higher-order cognitive learning.

**Technology and Writing**

An important factor for achieving academic achievement, employment, and promotion in the workplace is becoming literate and the main key to this progress is learning to write (Graham & Perin, 2007). As stated by Raban and Scull (2013) learning to write and becoming a qualified writer requires deliberate attempts and instruction which may not be occurred only at schools. In fact, students have to practice anytime and anywhere which is available today via CMC. The importance of learning to write can be better understood in a flashback to the conclusion achieved by Garrison, Anderson, and Archer (1999) that “simplifying complex and deep issues in order to attain a meaningful learning, necessitates the use of writing activity which can perform as an adjunct means of communication even in face-to-face learning situations such as summaries on whiteboards and handout notes” (p.100).

In light of the rapid development and accessibility of CMC, the definition of “writing” and the nature of writing instruction need to be reconsidered (Williams, & Beam, 2018). According to Mills and Exley (2014), digital composition is increasingly becoming an integral part of the writing program in many schools. As claimed by Elola and Oskoz (2017, p.1) such advents have sparked a revival of interest in writing as an essential part of the curriculum, while we are living in the span of time when communicative approaches have focused more on oral communication. Similarly, Qu (2017) pointed out that digitalization and the advent of CMC educational tools has considerably transformed the ways of teaching
writing and compelled many scholars to synchronize with this development. So, there is a
great necessity for teacher educators and educational researchers to focus and consider
carefully any pedagogy, practice, and research on this subject.

The common features of the majority of CMC educational tools are challenging the
traditional approaches by emphasizing on the use of writing as a communication mode, as a
result of such disposition different writing genres have been emerged. Yet the traditional
modes have their roots in a well-established L1 and ESL pedagogy and many writing teachers
still adhere to popular instructional methods and the traditional academic approaches. But in
this context, we need to admit the great diaspora from traditional to the digital educational
environment. This movement assimilates a range of modes, modalities, and media, which
ends up with the new methodological emergence in the process of writing teaching and
learning. It is a strenuous task and requires perseverance but enables us to understand what
the act of writing means and will mean in the 21st century and gradually terminates sticking
at the L2 pedagogical stereotypes.

Feedback Provisions
The main focus by the researchers in the field of L2 writing has been oriented in the question
whether and how corrective feedback can help students to become more able and independent
writers (Chandler, 2003; Ferris, 2006), while traditionally the chief concern was to see the
impact of the teachers’ assignments on student writing.

Nassaji (2016) distinguished the main reason of teachers and researchers enthusiasm
for feedback provision. He believed that teachers tend to provide corrective feedback since it
improves learners’ accuracy, while the researchers believe that corrective feedback is the
symptom or sign of second language acquisition. Lyster and Ranta (1997) classified different
types of feedback: explicit corrections, recasts reformulation, clarification requests,
metalinguistic feedback, elicitation, and repetition. Despite the growing trend of research
over the last few years, the question regarding the efficacy of written corrective feedback in
terms of accuracy improvement is still an on-going debate. For example, researchers like
Truscott (2007), Bitchener and Knoch (2008) have revealed that there is no noteworthy
difference in the effect of different types of feedback like direct corrective feedback and
metalinguistic explanations. Terrell (1982) enumerated three reasons for the
inappropriateness of direct feedback provision: (1) it does not guarantee the correct language
usage in the future, (2) it may hurt the affective feelings, and (3) it may encourage students to
concentrate on form rather than meaning. For dealing with this dilemma Nassaji (2016) coined the “interactional feedback” item which was supported by different theoretical views such as Interactionist perspective that defined ‘negotiation’ as a solution to repair communication breakdowns, Meaning and form-focused perspective integration based on the learners’ response to peers errors during interaction, and the Sociocultural perspective (Vygotsky, 1978), which conceptualizes the role of interaction.

Many researches have been recently conducted to investigate the impact of interactional feedback in the process of language learning. In this regard, CMC tools seem to be a useful incident for following this trend. Though, we may not attain conclusive signals advocating the idea that computer-based interaction makes available more opportunities for feedback than face-to-face communication. This necessitates the need for further research.

These days the underpinning of any language educational programs demand a high level of writing proficiency, which encourages learners to express their knowledge on many subjects in the way of communicative writing, although they achieved different contrasting findings. Hence, it can be stated that because it is difficult to reach firm evidence-based deductions from the results of previous studies on the impact of an asynchronous online discussion peer feedback forum on writing skill, the main concern will be the educational importance of this approach on Iranian writing skill ability. As a matter of fact, any line of the research in this connection can contribute to the achievement of instructional approaches for L2 learners. The insight provided by such an investigation can be fruitful in coming up with well-organized and realizable curricula and fundamental information to develop materials on teaching writing and plan more systematic instruction for teaching. Therefore, this study aimed to investigate the impact of an asynchronous online discussion forum on EFL students’ writing ability and attitudes in Iran. The following research questions were examined:

1. Does the asynchronous online discussion forum environment have impact on the development of writing ability of Iranian EFL students?
2. What were the students’ attitudes about the asynchronous online discussion forum and did this change over the period of a course?

Method
The present study is a quasi-experimental study accompanied by pretest-posttest method and a survey to investigate the impact of the asynchronous online discussion forum through
feedback provision to develop and improve students writing ability and attitudes within the 12-week session in comparison to the dominant traditional face-to-face teaching writing in Iran. The treatment included writing a five-paragraph essay and feedback provision based on a pre-designed feedback sheet in each session. The scenarios are described in detail in the following sections.

Participants
The participants included 60 third-year university students (22 male and 38 female). Their ages ranged from 20 to 24, majoring in English language teaching and were Persian speakers. The study started after the reception of the required permission from the university and the related department. All students willingly agreed to participate in the research but they were allowed to drop out of the research anytime they desired. Thirty students were assigned as the experimental group based on mean scores of their performance on Oxford Quick Placement Test (version 1, 2001). For in-depth and reliable evaluation, a writing task from previous years of IELTS examination was also added to the pretest.

Instrument
In order to clarify the instructional design of the asynchronous online discussion forum a project meeting in the students’ L1, Persian, was held for the experimental group. In this session the researcher familiarized the students of how to enroll and actively engage in the asynchronous online discussion forum environment (www.eltmoodledu.com), then taught them how to write a five-paragraph essay and how to extract three good questions to interact with their peers. It is worth mentioning that students were familiar with the basic principles of paragraph writing since of passing writing courses in previous semesters.

Data Collection Procedure
At first students have to enroll in the forum website, after the confirmation by the researcher, they could have access to the content of the course. By clicking on the "Forums" tab, they could see a box "Comments". In this box students could write or paste their first drafts (a five-paragraph essay) plus three related challenging questions about the discussed subject in the class. The entire process is called “Posting” stage. In the second Posting stage, they were required to freely select one or more classmates and click on "Reply" tab to answer their questions, and also provide feedback based on the pre-designed feedback sheet which was
developed by Yang, Badger, and Yu (2006, Appendix A) and had been used in earlier studies by Paulus (1999) and Bitchener, Young, and Cameron (2005). This trend continued in five Posts or the students were able to participate and add their comments or feedback for five times. At the end, each student after self-assessment and revisions of their own writing feedback, posted final draft in the "Comments" section. These drafts were considered as the main sources of the study for the researcher. Accepting and ignoring the feedbacks were optional for the students. The researcher was the facilitator in giving prompt and rapid response to the students’ contribution, providing technical service and clarifying the ambiguities of feedback sheet.

In the control group the students were taught traditionally how to write a five-paragraph essay and expected to do the book assignments. After that, the researcher inscribed feedback and comments on the scripts for each student and when he felt necessary, provided the oral feedback for whole class as well. Finally, students revised their papers and submitted in the hard copy format to the researcher.

Both groups, had to participate in the posttest exam. There were some relationship between the discussed topics in the class and the posttest ones, in fact the topic for the posttest was related to the discussed subjects in the classrooms, for example “its high time men ceased to regard women as second-class citizens? This topic was chosen by the researcher since students had been working on the theme of “Authoritarian Men Control”.

In order to mitigate the bias estimation of the researcher the analytical scoring guide (Zhu’s, 2001, Appendix B) was applied to mitigate the bias estimation of the researcher. The scale graded the students on six levels as impressive, clearly competent, satisfactory, unsatisfactory, weak, and severely limited. Furthermore, an independent second rater, an experienced English teacher, was asked to score the students’ posttests as well. As a final stage, the students were required to reply to an attitude questionnaire (adapted from Zhang, 1995; Jacobs, Curtis, Braine, & Huang, 1998; Hyland, 1998; Yang et al., 2006, Appendix C. & C.1) about the methodologies of being taught. The questions examined the students’ perception of different types of methods, feedback, revisions, ideal feedback, and self-assessment as an English learner and writer.
Figure 1. A screenshot of the website

Figure 2. Topics for discussion

Figure 3. Students writing sample with three questions
The Impact of the Asynchronous Online Discussion Forum on the Iranian EFL Students’ Writing Ability and Attitudes

Figure 4. Students feedback provision and their replies to the questions

Data Analysis and Results

In this regard, the data obtained through the pretest and posttest as well as the questionnaires were analyzed. An independent sample t-test was run to examine the difference between the mean scores of the two groups.

Data Sets

Three data sets were collected from the groups:

2. Pretest and posttest of five-paragraph essay writing.
3. A partially modified questionnaire survey conducted in the last session.

Testing the First Hypothesis

The first research question of this study was to investigate the impact of practicing a five-paragraph essay writing in the asynchronous online discussion forum in comparison to the face-to-face traditional methodology-oriented on students’ writing development. Sixty students were randomly assigned into experimental and control groups. After the treatment procedure, a posttest was administered to both groups to find how using asynchronous online discussion forum affected Iranian EFL students’ writing. Before running the statistical tests for the results of pretest and posttest, the normality of the data was checked. Table 1 shows the descriptive statistics related to the results of pretest and posttest for both control and experimental groups.
As shown in Table 1 the value of Skewness coefficient and Kurtosis coefficient was less than 1 for both tests. In addition, the significance value for the Kolmogorov-Smirnov test for pretest and posttest was more than .05 showing that the scores were normally distributed. Therefore, the assumption of normality has been satisfied. Consequently, we could use the mean as an indicator of central tendency index, besides using the parametric statistics models.

**Categorizing the participants into control and experimental groups**

A pretest was administered to homogenize the participants in two groups. In order to ensure the homogeneity of the participants, an independent sample t-test was carried out to find out whether any differences existed between the two groups. Table 2 indicates the descriptive statistics of each group separately.

**Table 2. Descriptive statistics of independent sample t-tests for pre-test**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>30</td>
<td>31.36</td>
<td>2.59</td>
<td>.47</td>
</tr>
<tr>
<td>Forum</td>
<td>30</td>
<td>30.76</td>
<td>3.12</td>
<td>.57</td>
</tr>
</tbody>
</table>

The results of the independent sample t-tests in Table 3 indicates that the mean difference between the traditional face-to-face and asynchronous online discussion forum group was not statistically significant, \(t(58) = .80, p > .05\). As a result, it can be concluded that both groups were homogeneous.

**Table 3. Independent sample t-tests results for pretest**

<table>
<thead>
<tr>
<th>Pre-test</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Equal V Assumed</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>F. Sig.</td>
<td>.80</td>
</tr>
<tr>
<td></td>
<td>Equal V not Assumed</td>
<td>1.41</td>
</tr>
</tbody>
</table>

After checking the normality of the data and ensuring the homogeneity of the groups, the posttest data were analyzed by using parametric statistics. Since we had two means from two different groups, i.e. asynchronous online discussion forum and face-to-face traditional group, the mean differences were analyzed by using independent sample t-test. As shown in
The Impact of the Asynchronous Online Discussion Forum on the Iranian EFL Students’ Writing Ability and Attitudes

Table 4, the experimental group outperformed the students of the traditional face-to-face group. In fact, this data with the difference in mean scores of about 12.77 presents the effectiveness of the asynchronous online discussion forum on students writing than that of face-to-face traditional group. As a result, it can be stated that there is a statistically significant difference in the mean scores of these groups. Thus, it could be claimed that using the asynchronous online discussion forum had a significant effect on the writing improvement of the subjects.

Table 4. Descriptive statistics of independent sample t-tests for posttest

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Number of Stud.</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional class</td>
<td>30</td>
<td>30.73</td>
<td>3.82</td>
<td>.69</td>
</tr>
<tr>
<td>Forum class</td>
<td>30</td>
<td>43.50</td>
<td>3.85</td>
<td>.58</td>
</tr>
</tbody>
</table>

Furthermore, the results of independent sample t-tests in Table 5 shows that the mean difference between the groups is statistically significant, $t(58) = -12.93, p < .01$. As a result, using the asynchronous online discussion forum significantly affected the students’ writing in the experimental group.

Table 5. Independent Sample t-tests results for posttests

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F.</td>
<td>Sig.</td>
</tr>
<tr>
<td>Traditional class</td>
<td>Equal V. Assumed</td>
<td>.004</td>
</tr>
<tr>
<td>Forum class</td>
<td>Equal V. not Assumed</td>
<td>.004</td>
</tr>
</tbody>
</table>

Note. * Significant at the .001 level

Further, the analysis of the grading process by an independent rater and the researcher through using the same scoring guide (Zhu, 2001) confirms no significant difference in grading between the two raters (Table 6).

Table 6. Mean scores provided by the researcher and the independent rater

<table>
<thead>
<tr>
<th>Raters Mean</th>
<th>Researcher</th>
<th>Indep. Rater</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional class</td>
<td>3.26</td>
<td>4.10</td>
<td>0/16</td>
</tr>
<tr>
<td>Forum class</td>
<td>4.01</td>
<td>3.50</td>
<td>0/60</td>
</tr>
</tbody>
</table>

Additionally, to see the best estimate of the overall effect of the asynchronous online discussion forum or its effect size and to determine how helpful forum environment had been,
Cohen’s $d$ formula for meta-analysis was used which provides a number that allows “an acceptable degree of confidence” (Truscott, 2007). For this reason the effect size calculator in the web-site of the University of Colorado designed by Dr. Lee A. Becker was used (Becker, 2000). Based on this calculator the anticipated effect size can be classified as conventional values of “small”, “medium” and “large”. These effect sizes were offered by Cohen (1992) and Descôteaux (2007): $d$: small effect =.20-.50; medium effect=.50-.80; large effect = .80 and up. Therefore, to measure Cohen’s $d$, a comparison was made between the overall means and standard deviations of the traditional and forum environment (as guided by the calculator). The results are displayed in Table 7.

Table 7. Calculation of $d$ and $r$ using means and standard deviations

<table>
<thead>
<tr>
<th>Pedagogy</th>
<th>Cohen’s $d$</th>
<th>Effect- size $r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forum &amp; Traditional class</td>
<td>3.32</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Note: The calculation was performed through using Effect Size Calculators from the University of Colorado with 95% confidence.

According to the norms of effect size offered by Cohen (1992) and Descôteaux (2007), the results proved the effectiveness of forum approach with the difference in degree. As Table 7 shows the obtained average effect size for traditional and forum environment are 3.32 and 0.85 respectively that fell in the range of large.

**Testing the Second Hypothesis**

The second research question of this study was concerned with the students’ attitudes about the asynchronous online discussion forum and did this change over the period of a course? According to Russell and Spada (2006) the efficiency of a specific methodology is impacted by the learners’ attitudes. So, for finding this effectiveness, students’ attitudes about the applied approaches and their expected view of being an anticipated learner and writer were investigated through the questionnaires in both classes. Table 8 displays that 67% of the students favored traditional class as ‘‘very useful’’. They believed that the only person in the class who could be trusted is the teacher as a professional and dominant authority, while 84% of students preferred the asynchronous online discussion forum approach. They generally believed this approach invoked their sense of interaction and being less dependent to the teacher since asking questions of teacher was a stressful job for them, moreover they were free of searching the internet to solve their problems.
Table 8. Students’ attitudes of different kinds of approaches

<table>
<thead>
<tr>
<th></th>
<th>Traditional</th>
<th>Forum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Not useful</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A little useful</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Useful</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>Very useful</td>
<td>20</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

In the next phase, the researchers tried out to figure out whether any changes occurred in the students’ attitudes over the period of the treatment. Therefore, students’ self-perception of their future actualization as an English learner and writer were asked. As Table 9 shows five students in the asynchronous online discussion forum considered themselves as excellent learners and two students were imagined as excellent writers, while no one considered themselves as an excellent learner and writer in the traditional class. This can be attributed to the challenging and interactive nature of the asynchronous online discussion forum that was effective in the strengthening of the students’ self-confidence and independence. Additionally, seven and nine students were hopeless of being successful learners and writers respectively in traditional class, while no one in the forum class estimated such self-perception.

Table 9. Students’ attitudes over the period of a course as an English learner and writer

<table>
<thead>
<tr>
<th>Self-perception</th>
<th>Traditional class</th>
<th>Forum class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English L.</td>
<td>Writer</td>
</tr>
<tr>
<td>Excellent</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Fair</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Poor</td>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

Note. L=Learner W=Writer

Finally, for in-depth analysis of the changes in attitudes, the students’ responses to the written feedback were also analyzed. This analysis was based on the adapted item from Hyland (1998) questionnaire, (item number 3), which described the utilization of different types of feedback by the students.

The description included the following items:

a. Feedback follow-up: a learner revised a word or words followed by the corrections or suggestions that was made by his teacher or peer. For example;

The customers will buy things that is the most attractive to them.
The revised sentence:

The customers will buy **things** that are the most attractive to them.

b. Initial stimulus: a teacher or peer feedback provided suggestions influence a whole sentence or a number of sentences in which a learner has to change the whole sentence. For example;

> It looks to me that a good teacher should not only be a good English speaker, but also be good at teaching.

> It has been **generally accepted** that a good English teacher should be good at using the language, be a very good English speaker and be good at teaching as well.

c. Avoidance: deleting the problematic feature without substituting anything else by the learner based on the received feedback from his or her peer or teacher.

As table 10 indicates that 51% of the feedbacks were followed closely by the teacher in the traditional face-to-face class, while this percentage is lower in the asynchronous online discussion forum by 46%. In addition, 44% of feedbacks were responded as the initial stimulus in the traditional class which was 10% greater than its counterpart in the asynchronous online discussion forum. The significant different lays in the non-existence of an Avoidance type feedback in the asynchronous online discussion forum in contrast to the traditional class which is 14%.

**Table 10. The students’ respondents to the written feedback**

<table>
<thead>
<tr>
<th>Group</th>
<th>Followed</th>
<th>Initial Stimulus</th>
<th>Avoidance</th>
<th>Not related</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>621(51%)</td>
<td>537(44%)</td>
<td>0(0%)</td>
<td>62(5%)</td>
<td>1220</td>
</tr>
<tr>
<td>Forum</td>
<td>480(46%)</td>
<td>376(36%)</td>
<td>148(14%)</td>
<td>37(4%)</td>
<td>1041</td>
</tr>
</tbody>
</table>

**Discussion**

The present study indicated that students who used the asynchronous online discussion forum performed significantly better in writing than those who used traditional face-to-face pedagogy. Moreover, this new trend had the positive effect on the students’ attitudes towards writing skill in English. In fact, the activity in such environments invoked self-engagement of students in language learning process which made a great alteration from a teacher-centered class to the student-centered one. Another issue pertains to the students’ self-perception about their future language proficiency ability. Students in the asynchronous online discussion forum imagined themselves as an anticipated excellent English writers and learners. This perception can be ascribed to the challenging nature of working in forum environment which bestows students a sense of confidence and bravery in self-dealing in the writing difficulties.
This feeling is also obvious in the students’ respondents to the written feedbacks provided by their peers or teachers, where many feedbacks were not taken for granted by the students to be revised or rearranged.

In other words, it can be stated that the main reason of designing such environment is persuading students to get involved in a real-life context, in contrast to classroom limitations by writing an essay, providing feedback, discussing ideas and replying to peers’ questions. It also causes the retrieval of declarative knowledge and converting it into the procedural one by active participation. Traditionally, teachers provided feedback for their students. This feedback provision is described as a recalcitrant response to students’ errors in writing by Santa (2008). The poor results and low satisfaction of such procedures were repeatedly pinpointed by the researchers (Terrell, 1982; Truscott, 2007; Bitchener & Knoch, 2008). But then, the emergence of technology in education removes the traditional bounds of language teaching through presenting smart tools and virtual atmospheres. The asynchronous online discussion forum environment facilitates and expedites this trend. For example, Esfandiari and Meihami (2017) supported the provision of direct corrective feedback through e-portfolio as an online environment and upgrading traditional procedures with such tools. Biasutti (2017), pointed out the efficacy of inferencing, evaluating, organizing and supporting of discussing or sharing ideas in the forum discussions.

Furthermore, the outcomes were consistent with the results acquired by Ferris, Sinha, and Senna (2013) regarding the efficacy of written corrective feedback as: (a) focused written corrective feedback is more appreciated than unfocused one, (b) the priority of indirect written corrective feedback over direct one in a long run, and (c) explicit written corrective feedback may be more appreciated for some students than an implicit one. All these achievements were promoted as the result of the students’ access to the pre-designed feedback sheet which highlighted required items that would be checked by peers or teacher in details.

There are also considerable disagreement concerning providing corrective feedback in writing, for example, some studies disagree with Truscott (2007) findings concerning the inefficacy of feedback provision and concluded that feedback provision has positive effects on students’ ability to write accurately, but it is clear that individuals regarding their language background, motivation, and external constraints respond differently to any pedagogical treatment.
Last but not least another goal of this study was the emigration from the teacher-centered class and immigration into the student-centered one. The main reason for such a diaspora is the allocation of the uncommon teachers’ activities to students’ self-engagement through scaffolding by teachers in order to control and direct them in the trek of being independent and autonomous. It is the confirmation of the students’ high level of autonomy and self-actualization in writing skill. The findings of this research were also consistent with previous studies (e.g. Limbu & Markauskaite's, 2015) focused on learners’ view about web-oriented writing platforms. Their findings showed that students believed participation in such environment can be considered as a directed, scaffolded and interactive space prearranged by teachers which arose students’ active contribution and positive view on practicing on online/offline collaborative platforms, and revealed that such pedagogical atmosphere along with the teachers’ supervision can support their ideas of online collaborative writing and motivation.

In a similar vein, students’ attitudes on learning regulate their ability and willingness to learn. A basic premise of the asynchronous online discussion forum model is changing students' negative attitudes toward learning writing. The results of our study verify that the students’ attitudes towards the online discussion forum were rather positive, although some of them stated that they had not used them before. In short, the interactive nature of forum met the students’ needs to feel accepted by their peers as well as by their teacher and become part of the fabric of instruction. Some of the reasons for the participants’ positive perceptions include:

(a) The opportunity provided to them to have a better control on forming and organizing their own pace of study and learning. (Scott, 2015).

(b) The potentiality of the asynchronous online discussion forum to supply a natural environment to learn and practice writing skill in real experiences and situations. (Akbari & Razavi, 2016; Mart, 2013).

(c) The easy access to different educational materials and resources. The asynchronous tools are perceived as instructional resources that allow them to get access to materials of the subject according to their necessities beyond the classroom limit, and review them at their own pace at anytime and anywhere (Lan, 2014; Moore, 2011; Shahramiri & Gorjian, 2013).

**Conclusion and Implications**

Four main conclusions were made from this study:
First, the primary responsibility of school policy makers is embedding the technology within curriculum development and syllabus design. Within this viewpoint, it would be recommended that teachers should harmonize between their goals, students’ needs and contextual, cultural, and infrastructural basis to apply technology in their teaching as a required tool of learning. Within this framework teacher training courses can be a very helpful to empower teachers in using such technological advancements. It is obvious that the technology cannot substitute teachers’ roles but can act as an invaluable supplementary tool by establishing an interactive atmosphere during the learning process. As a matter of fact, expanding such technologies has the potential to motivate students in comparison to what has ever been conducted in the traditional classes. In this regard, forum environments could be considered as widespread and thought-provoking asynchronous or synchronous mechanisms that are able to be adapted to every educational organizations. The results seem to be the threshold for integrating technology and education for improving organizational and instructional development.

Second, a pre-designed feedback sheet would act as the students’ stress-reliever by highlighting the important parts of writing products that should be focused on, analyzed, and learned. By referring to such guidelines, students will be able to become self-assessed and self-regulated learners. Moreover, teachers’ scaffolding and sponsorship in the right time could be an appropriate extension of the natural collaboration for the development of the life-long learning and dynamic position of students in their learning process, mainly in writing skill.

Third, the asynchronous online discussion forum would be a successful model for generating a new teacher-oriented environment and invigorating self-determining and autonomous habits in learners’ writing skill. Students settle into converting their declarative knowledge to the procedural one, in which technology (forum) encourages them to take charge of their learning consequences and to employ their own style and strategies to achieve self-actualization in their work. In other words, students may have enough knowledge about a particular grammatical item such as “Causative verbs” but did not use in their production, while practicing writing in the forum could assist them to use it appropriately in their final drafts.

In summary, the technology as the chief cause of creativity and innovation, can also assign new roles to students and teachers by constructing a competitive, interactive and stimulating environment. Likewise, asynchronous online discussion forum arises the sense of
autonomy and sovereignty in students by restoring the procedural knowledge which supports them to trust on their own aptitudes and become self-determinant in writing skills. Furthermore, encourages students to carry out an incessant self-assessment in order to know their weaknesses and receive the necessary feedback to edit them and acquire the contents.

Limitations

However, we should note the present study includes some limitations, demanding future research. Firstly, the researchers examined only one skill of language learning in the asynchronous online discussions forum, namely writing ability. Future research should also investigate how online discussions forum environment accompanied by peer feedback technique impact students’ reading ability and critical thinking of challenging a particular topic or influence on particular features of language skill such as different grammatical items (tenses, modals,...). Secondly, the current study examined the participants majoring in English who were familiar with academic writing style and structure, while other disciplines may not be such familiar with writing skill. It is apparent that English major students are more likely interested in doing such activities as their routines, in comparison to students in other disciplines. Accordingly, the researchers recommend further research to investigate other fields of study, especially ESP participation in the online discussion forum. Thirdly, the generalizability of the findings may be limited. For the reason that the researchers examined only thirty samples who were undergraduate students. Other age groups and levels of education can also be investigated. Additionally, L2 proficiency can be added to the variables.

Acknowledgements

The authors would like to appreciate the anonymous reviewers for their careful reviews and comments.
References


**Appendices**

**Appendix A.** Feedback sheet

Draft written by --------------- feedback provided by ---------------

Composition topic -----------------------------------------------

Your purpose in answering these questions is to provide an honest response to your partner's or group member's draft. You should also suggest ways to make his/her writing better. Before beginning your review be sure to read the composition carefully. After that respond to following questions. BE SPECIFIC. BE CONSTRUCTIVE.

**Content**

1. What do you like the best or the worst about the idea in this essay? Be specific. You can chose a tick for the best one and a cross for the worst or given your own comments (vocabulary, cohesive/linked ideas, clear/easy to follow, convincing, effective reasoning, well-developed ideas, attention-grabbing introduction, strong conclusion, intriguing style, well-supported topic sentences, understandable transitions, etc.)

2. Of the proofs, reasons or arguments given to support the writer's opinion, which one/ones is/are irrelevant or illogical to the topic? Point it/ them out and explain your reasons and, if you can suggest improvements.

3. What part(s) should be developed more? Mark these with a letter D. Explain why you think this should be developed more and make some suggestions.

4. What part(s) are confusing? Mark these with a letter C. Explain why you think they are confusing and make some suggestions.

**Organization**

5. Does the first paragraph include an introduction expressing the writer's position statement of opinion? Yes □ No □ If yes underline the sentence(s). If no should the writer explicitly express his/her topic in the revision? Yes □ No □
6. Does each paragraph have a topic sentence? Yes□ No□. Point out the paragraphs without topic sentence. Paragraphs ---, ----, ---, -----, ----. Should topic sentences be added to these paragraphs? Yes□ No□.

7. Is there a conclusion in the final draft? Yes□ No□. Is it effective? Yes□ No□.

**Grammar, Vocabulary & Mechanics**

<table>
<thead>
<tr>
<th>V</th>
<th>error in verb tense/verb form (active/passive voice, present/past participle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>spelling error</td>
</tr>
<tr>
<td>Art</td>
<td>article/other determiner missing or unnecessary or incorrectly used</td>
</tr>
<tr>
<td>Prep</td>
<td>preposition incorrectly used</td>
</tr>
<tr>
<td>Pron</td>
<td>pronoun</td>
</tr>
<tr>
<td>Conj</td>
<td>conjunction incorrectly used</td>
</tr>
<tr>
<td>NE</td>
<td>noun ending (plural or possessive) missing or unnecessary</td>
</tr>
<tr>
<td>WW</td>
<td>wrong word/wrong word form</td>
</tr>
<tr>
<td>WO</td>
<td>wrong word order</td>
</tr>
<tr>
<td>SV</td>
<td>subject and verb do not agree/missing word/unnecessary word</td>
</tr>
<tr>
<td>SS</td>
<td>sentence structure: incorrect structures, sentence fragments</td>
</tr>
<tr>
<td>P</td>
<td>punctuation wrong</td>
</tr>
<tr>
<td>Cl</td>
<td>capital letter</td>
</tr>
</tbody>
</table>

8. Use the following correction codes to point out the errors. Mark the codes in the draft.
Appendix B. Composition/ Essay scoring guide

6 Impressive

- Strong organization of essay and paragraphs
- Persuasive reasoning through varied and detailed examples
- Demonstrates style through sophisticated and varied vocabulary, complex grammar and sentence structure, accurate spelling, and effective transitions and punctuation

5 Clearly competent

- Clear organization of essay and paragraphs
- Relevant, detailed examples
- Correct use of most vocabulary, grammar, sentence structure, transitions, spelling, and punctuation; minor errors do not interfere with communication

4 Satisfactory (sometimes only marginally)

- Organized essay and paragraphs
- Developed with adequate examples, but lacking detail
- Correct use of most vocabulary, grammar, sentence structure, transitions, spelling, and/or punctuation; occasional errors sometimes interfere with communication

3 Unsatisfactory

- Some evidence of organization of essay and/or paragraphs
- Little development
- Frequent errors in vocabulary, grammar, sentence structure, transitions, spelling, and/or punctuation sometimes interfere with communication

2 Weak

- Slight evidence of organization of essay and/or paragraphs, but ideas confused and/or disconnected
- Very little development, but simplistic
- Frequent and varied errors in vocabulary, grammar, sentence structure, transitions,
spelling, and/or punctuation interfere with communication

1. Severely limited
   - No evidence of organization
   - No development
   - Limited to basic words, phrases, and sentences often with errors
   - May be off topic or merely a copy of the Essay Test Topic

Appendix C. Questionnaires

Feedback Questionnaire (For traditional face-to-face class)
The purpose of this questionnaire is to improve the teaching of composition. The aim is NOT to evaluate professors. Please do not sign your name: all responses are anonymous. Recall what you did with the feedback from your teacher and answer as honestly as possible.

Male □ Female □
1. How many semester of English have you had? -------------------
2. Generally did you find the traditional face-to-face class useful in your writing improvement?
   Very useful □ Useful □ A little useful □ Not useful at all □
3. Generally did you find the teacher's feedback in traditional face-to-face class useful in your revision?
   Very useful □ Useful □ A little useful □ Not useful at all □
   Your explanation----------------------------------------------------------
5. Check one statement that best expresses your opinion about receiving feedback on your paper.
   a) I prefer to receive only teacher feedback
   b) I prefer to receive only peer feedback
   c) I prefer to receive teacher and peer feedback
   d) I prefer to receive no feedback (and to revise on my own)
   Your explanation----------------------------------------------------------
6. Rate yourself as an English learner? Excellent □ Good □ Fair □ Poor □
7. Rate your skills in writing English compositions? Excellent □ Good □ Fair □ Poor □

Appendix.C.1. Questionnaires
Feedback Questionnaire (For asynchronous online discussion forum class)
The purpose of this questionnaire is to improve the teaching of composition. The aim is NOT to evaluate professors. Please do not sign your name: all responses are anonymous. Recall what you did with the feedback from your peers and answer as honestly as possible.

Male □ Female □

1. How many semesters of English have you had?  

2. Generally did you find the asynchronous on-line discussion forum useful in your writing improvement?  
   Very useful □ Useful □ A little useful □ Not useful at all □

3. Generally did you find your asynchronous on-line discussion forum feedback useful in your revision?  
   Very useful □ Useful □ A little useful □ Not useful at all □

Your explanation------------------------------------------------------------------------------------------------------

   Followed by feedback □ Initial Stimulus □ Avoidance □

5. Check one statement that best expresses your opinion about receiving feedback.
   a) I prefer to receive only teacher feedback
   b) I prefer to receive only peer feedback
   c) I prefer to receive asynchronous on-line discussion forum feedback
   d) I prefer to receive no feedback (and to revise on my own)

Your explanation------------------------------------------------------------------------------------------------------

6. Rate yourself as an English learner?  
   Excellent □ Good □ Fair □ Poor □

7. Rate your skills in writing English compositions? Excellent □ Good □ Fair □ Poor □