A MIXED METHODS ANALYSIS OF THE EFFECT OF GOOGLE DOCS ENVIRONMENT ON EFL LEARNERS’ WRITING PERFORMANCE AND CAUSAL ATTRIBUTIONS FOR SUCCESS AND FAILURE

Dr. Zari Sadat SEYYEDREZAIE
English Department
Ferdowsi University of Mashhad, International Campus, Iran

Dr. Behzad GHONSOOLY
English Department
Ferdowsi University of Mashhad, Iran

Dr. Hesamoddin SHAHRIARI
English Department
Ferdowsi University of Mashhad, Iran

Dr. Azar Hosseini FATEMI
English Department
Ferdowsi University of Mashhad, Iran

ABSTRACT

This study investigated the effect of writing process in Google Docs environment on Iranian EFL learners’ writing performance. It also examined students’ perceptions towards the effects of Google Docs and their perceived causes of success or failure in writing performance. In this regard, 48 EFL students were chosen based on their IELTs writing test scores. During the treatment, the students were taught how to write a formal five-paragraph essay in the class, but they were supposed to practice writing process and give feedback to their peers’ essays through Google Docs. At the end of the treatment phase, the participants received another sample of IELTs writing test (posttest). Moreover, 20 participants were interviewed for their perceptions regarding the causes for their success and failure and the influence of Google Docs on their writing performance. The analysis of a Paired-Sample t-test revealed that Google Docs played an effective role in improving students’ writing performance. In addition, the analysis of interview revealed that the students perceived both internal and external causes for their success and failure; but in case of failure, internal factors were cited more often than external ones. Also, it was revealed that students generally showed positive attitude towards the implication of Google Docs as a factor leading to success in their writing performance.

Keywords: Attribution theory, google docs, blended learning, writing performance

INTRODUCTION

Prevalent application of Internet technology has influenced all aspects of life. Recently, online instruction has attracted considerable attention in the educational setting (Picciano, 2002). Consequently, it is considered as an important and beneficial factor in language teaching and learning (Smith, 2003); because online instruction provides EFL students with opportunities to practice English language in an inspiring environment (Zeiss & Isabelli, 2005).
In this regard, new technologies like wikis, blogs, podcasts, and Google Docs are becoming popular in EFL/ESL context, especially in writing classes (Pan & Sullivan, 2005). Among these user-friendly technologies, Google Docs appears to have suitable features and characteristics that can facilitate the peer feedback process for writing classes (Brodahl, Hadjerrouit, & Hansen, 2011).

In both traditional and online learning classrooms, predicting the learners’ causal attributions for their success has been considered as an important factor. As an approach to predict academic behavior, contemporary psychological research has focused on attribution theory which is defined by Weiner (1986) as people’s perceptions about themselves and the way in which they attribute their success and failure. According to Williams and Burden (1997, cited in Hashemi & Zabihi, 2011), the attributions people make about their success and failure have an impact on their interest to accomplish future tasks. For instance, the extent to which people believe that their success is due to their own effort, they will expect to achieve the same outcomes the next time they approach the same tasks. On the contrary, if they perceive their lack of ability or lack of effort as causes of their failure, they will possibly avoid situations in which they are supposed to do similar tasks because of not failing again. Weiner (1986) suggested four sets of attributions including ability, effort, task difficulty, and luck, to which people tend to hang on their perceived success and failure in the academic setting. These attribution sets are in relation with three dimensions of causality, namely locus (internal or external), stability, and controllability (Weiner, 2006).

Learners’ causal attributions for success and failure can be affected by different types of feedback they receive (Amorose & Weiss, 1998). Regarding writing skill, many teachers and parents believe that writing failure has an impact on learners’ developing foreign language and their causes attributed for failure in their later writing performance; in these cases, some teachers considered corrective feedback (especially peer feedback) as a beneficial way to more positively influence learners’ attitudes towards their success and failure (Amorose & Weiss, 1998).

Since a new version of Google Docs (i.e. Google Drive) is becoming widespread in writing classes abroad, and few Iranian EFL teachers are familiar with this tool and use it as a file hosting service like Dropbox, this study aimed at illustrating whether Google Docs is effective in EFL writing classes or not. Although the use of Google Docs in second/foreign language writing instruction has been previously studied, few researchers have considered the effects of this online tool implemented with peer collaboration, on writing performance and attributional beliefs of EFL learners in blended instruction.

Therefore, the purpose of the present study was to investigate the effect of Google Docs-based writing instruction on Iranian EFL learners’ writing performance. In addition, this study aimed at considering Google Docs-based students’ perceptions toward the effects of Google Docs and their causes of success or failure in their writing performance. To fulfill the purpose of the present study, the following research questions were investigated:

- Does Google Docs-based writing instruction have any significant effect on Iranian EFL learners’ writing performance?
- What do Google Docs-integrated students perceive as causes for their success or failure in their writing performance?
- What are Google Docs-integrated students’ perceptions towards the effect of Google Docs on their success or failure in their writing performance?
THEORETICAL FRAMEWORK

The Application of Google Docs in EFL Writing Classes

Google Docs, as an online collaborative writing tool, allows applicants to edit their writings synchronously and collaborate with each other, and has the potential features to be applied in the writing classroom (Chu, Kennedy, & Mak, 2009). In his study, Hardison (2012) mentioned that Google Docs, as a beneficial tool, helps EFL teachers to inspire students to express their ideas freely and comment on their peers’ writing for improvement. Also, the finding of Spinuzzi’s (2007) study revealed that the features of Google Doc are suitable for cooperative activities because it provides students with opportunities to see their peers’ work and write collaboratively. Moreover, the findings of Blau and Caspi’s (2009) study indicated that their students had positive attitude towards writing collaboratively rather than writing individually in an online environment.

Perceived Attributions in Second and Foreign Language Contexts

Generally, people have a natural tendency to explore the reasons for their success and failure in life and academic context. Specifically, the factors to which individuals attribute these success and failure play an effective role in future tasks and actions in EFL learning context (Siegel & Shaughnessy, 1996). Williams, Burden, Poulet, and Maun (2004) explored the causes students attributed their success or failure to; the findings of their study indicated that the learners’ most frequent causes attributed for success or failure, were effort, strategy, ability, task, teacher, interest, and peers. Also, William, Burden, and Al-Baharna (2001) examined attributions of students from Bahrain for their success and failure in English language learning, and found that the students’ most common causes for success, were practice, family/teacher support, exposure to the foreign language and a positive opinion; on the other hand, inappropriate instructional methods, inadequacy of family/teachers’ support, and a negative point of view were the most frequent causes for failure. Moreover, in their study, Pishghadam and Zabihi (2011) explored the relationship between Iranian EFL learners’ causal attributions and their English language achievement. Their findings revealed that learners who attributed their success and failure to internal factors and found themselves responsible for their performance, demonstrated higher levels of achievement. In addition, Hsieh and Schallert (2008) investigated the relationship between EFL causal attributions and learners’ achievement. The results of their study revealed that ability attribution was an indicator of EFL learners’ achievement.

METHODOLOGY

Participants

The participants of this study were 48 Iranian male and female EFL sophomore students. Their age ranged from 19 to 27 and were all chosen from two branches of Islamic Azad University, including Gorgan and Aliabad Katool branches. The participants had enrolled in this blended writing program as a complimentary course. They were all sophomore students, because as a requirement, they should have passed the two introductory courses to Writing (Writing Courses 1 and 2), and also Advanced Writing in order to have enough background knowledge for writing an essay.

Instrumentation

IELTS Writing Proficiency Test

A sample IELTS writing test which was revolved around the topic “unhealthy diet”, was administered to the participants for both homogenizing the participants and as a pretest to evaluate their writing proficiency level one day before the first session. The result indicated that it had a reliability of .89. At the end of the term, another sample IELTS writing test revolved around the topic “competitiveness in society” was used as the posttest to evaluate the writing performance of the participants.
Weir’s Rating Scale
An analytic rating scale by Weir (1990, cited in Weigle, 2002) comprising seven aspects of writing including relevance and adequacy of content, cohesion, compositional organization, adequacy of vocabulary for purpose, grammar, and mechanical accuracy (regarding punctuation and spelling) was used for the purpose of rating the participants' performance on their drafts of essay-writing task. The band scores for each of these aspects of writing was 0-3. In this study, in order to assess the students' writing performance on the basis of Weir’s rating scale, two raters were chosen. For evaluating the inter-rater reliability, 20 percent of the writing essays of students (IELTS writing as a pretest) were randomly chosen and were given to them separately. The inter-rater reliability for the two raters who rated the students' writings administration is .81 (P < .05).

Attributional Interview Questions
In order to find the answer to the qualitative research questions of this study, a semi-structured interview was conducted. The interview included 5 questions, which elicited the students’ perceptions toward the impact of Google Docs on their success or failure in writing; also, these questions provided the reasons the Google Docs-based students attributed their success or failure in writing performance. To conduct this part of the study, 20 students were interviewed at the end of the term after having the post-test. The interview was conducted in Persian. All interviews were recorded and transcribed by the researcher.

Procedure
To carry out the quantitative part of the study, the following procedure was pursued. Firstly, a piloted sample IELTS writing test was administered to all sophomore students in order to select a homogeneous group of participants; as a consequence, 48 EFL students were chosen. During a 5 month treatment, the students were taught how to write a formal five-paragraph essay in a face-to-face class, but they submitted their essays, received feedback from their peers, and chatted with the teacher as a way of receiving her support via Google Docs.

The students were divided into 6 groups of 8 students in order to exchange comments on each other’s essays. Each group was asked to read and comment on their group members’ essays on the basis of the analytic rating developed by Weir (1990, cited in Weigle, 2002). After the students had provided their comments on their peers’ essays, the teacher gave feedback on their comments which might be incorrect or incomplete so that the students could receive correct feedbacks on their writings. At the end of the term, the students were given another sample IELTS writing test as a post-test. In order to assess the students’ writing performance, two raters who were both experienced teachers were chosen. For evaluating the inter-rater reliability, the result showed that it had a reliability of .81.

To carry out the qualitative phase of the study, at the end of the term, the learners were interviewed for their perceptions of success and failure about their English writing performance; besides, their ideas about the influence of Google Docs on their writing performance to see whether they find this environment as a reason for their success or failure in English writing test. To provide students’ insight on Google Docs environment from an attributional perspective, 20 students were selected for interview. These interviews were all conducted in the students’ mother tongue which was Persian, and all recorded and transcribed for further description, discussion, and analysis.
RESULTS

In order to have a homogeneous group of participants, a piloted version of IELTS writing test was administered to the sophomore students.

<table>
<thead>
<tr>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
<th>Error of Skewness</th>
<th>Kurtosis</th>
<th>Error of Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>IELTS</td>
<td>48</td>
<td>10.00</td>
<td>17.00</td>
<td>13.41</td>
<td>1.9660</td>
<td>3.8651</td>
<td>-.075</td>
<td>.143</td>
<td>-.238</td>
</tr>
</tbody>
</table>

As can be seen from the above table, the mean and standard deviation equaled 13.41 and 1.96 respectively. Accordingly, 48 participants who scored one standard deviation above and below the mean constituted the participants of the present study. As the table shows, the skewness value turned out to be -.075 and the standard error of skewness was .143. Since this figure fell within -1.96 and +1.96, it was concluded that the distribution was normal.

Before rating the writing performance of all students, 20 percent of the essays was rated, based on an analytic rating scale by Weir (cited in Weigle, 2002), by two raters and the inter-rater reliability was estimated (Table 2).

<table>
<thead>
<tr>
<th>Rater 2</th>
<th>Pearson correlation</th>
<th>Sig (2.tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

As Table 2 demonstrates, the inter-rater reliability for the two raters who rated the students’ writings is .80 (Sig. value smaller than .05) representing that there was a significant agreement between the two raters.

To investigate whether there is any statistically significant difference between pre-test and post-test writing scores of Iranian EFL learners who are exposed to blended writing instruction (Google Docs-based and face-to-face writing instruction), the participants’ scores were calculated and analyzed. The descriptive statistics of pre- and post-test writing scores of students has been illustrated in Table 3.

<table>
<thead>
<tr>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>pretest</td>
<td>13.41</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>posttest</td>
<td>16.34</td>
<td>48</td>
</tr>
</tbody>
</table>

In order to see whether the difference between the mean scores of EFL learners before instruction (M=13.41, SD=2.53) and after instruction (M= 16.34, SD= 2.93) reported above is statistically significant, a Paired Sample t-test was used (Table 4).
Table: 4
A Paired Samples T-Test of Pre- and Post-Test Writing Scores of Google Docs-based Learners

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
</tr>
<tr>
<td>Pretest</td>
<td>2.93</td>
</tr>
<tr>
<td>Posttest</td>
<td>1.18</td>
</tr>
<tr>
<td>t</td>
<td>47</td>
</tr>
</tbody>
</table>

As the above table indicates, the existing significant value (.000) is smaller than the significance level (.05). In other words, learners’ writing performance were significantly improved after receiving instruction in Google Docs environment.

Analysis of the Results of the Qualitative Research Questions
The second and third research questions of this study focused on investigating the students’ perceptions towards the causes which led to their success or failure in their writing performance; also, the effects of Google Docs on their success or failure in their writing performance. Therefore, in order to find the answer to these questions, a semi-structured interview was conducted by the researcher. For this purpose, 20 students were selected and interviewed at the end of the term.

Describing the Results of the Interview Questions
The interview included five questions and it was conducted in the students’ mother tongue. All the interviews were recorded, transcribed, and reanalyzed thoroughly and for each question the main themes were extracted and presented in a table with the degree of reference.

Question 1: Did you enjoy the writing process in Google Docs? Why/why not?

Table: 5
Themes of the First Interview

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. At the beginning of the term, writing process in Google Docs was not enjoyable but gradually they got used to it and they found it very interesting.</td>
<td>12/20</td>
<td>60%</td>
</tr>
<tr>
<td>2. They like this writing environment and from the beginning they found Google Docs enjoyable.</td>
<td>6/20</td>
<td>30%</td>
</tr>
<tr>
<td>3. They did not like this writing process and still they do not like it, but in a way, they thought it was interesting.</td>
<td>2/20</td>
<td>10%</td>
</tr>
</tbody>
</table>

In answering the first question, 60% of the students stated that, at the beginning of the term, they did not like writing essays in Google Docs for each session and they thought it was very difficult for them to do writing assignments in an online environment. They also added that in spite of the extra instructional sessions on Google Docs, they found this environment useless, because they had never had such an experience; but gradually they considered it as a part of the classroom schedule and at the end of the term, they found Google Docs very interesting and helpful for their writing improvement.
At the beginning, Google Docs was not interesting for me but at the end of the term, I was used to Google Docs, and involving in Google Docs made me motivated to write more and spend more time in this online environment.

Interview sample excerpt 1, Informant 1, May 2015

Another group of the students (30%) mentioned that they liked working with online technology (tools) very much and from the beginning of the term, they enjoyed writing in Google Docs. They also wished they had the same thing for all their classes because it helped them learn a lot and they did not waste any time in learning this skill.

I like this writing environment (Google Docs) and we use it to submit our essays and receive our peers’ comments. Other writing courses were not the same. They were based on just writing, rote learning, memorizing and other ways.

Interview sample excerpt 2, Informant 2, May 2015

The final group of these students (10%) stated that they did not like writing at all and they still do not like practicing writing; but they believed they learned a lot from the online writing environment and it was somehow interesting for them.

I don’t say that this online writing environment was bad and I also enjoyed some features of Google Docs. But generally I think in learning English as a TEFL student, it is enough to learn how to speak in English, and only elementary level of writing would be enough.

Interview sample excerpt 3, Informant 3, May 2015

Question 2: How did you find the writing instruction via Google Docs? (helpful or waste of time) Did it lead to success/ failure (improvement) in writing performance?

Table: 6 Themes of the Second Interview

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. At the beginning, they thought writings through Google Docs were waste of time, but at the end, they found them helpful.</td>
<td>11/20</td>
<td>55%</td>
</tr>
<tr>
<td>2. They found Google Docs very helpful for learning from the beginning.</td>
<td>7/20</td>
<td>35%</td>
</tr>
<tr>
<td>3. They found Google Docs helpful but they think they could use the time in better ways for learning</td>
<td>2/20</td>
<td>10%</td>
</tr>
</tbody>
</table>

Considering the answers to this question, students’ ideas were classified as three different themes. A group of 55% of the students believed that, at the beginning they thought this online environment (Google Docs) was useless. But at the end of the term, they thought this writing environment was very helpful for learning the writing skill by having access to additional links including new phrases and vocabularies related to topics of the essays.

Well at the beginning, I didn’t write essays very well and carefully because I thought that we will just write them and you and my peers won’t spend time in the online environment (Google Docs) on reading my essays, but after some sessions that you and my peers read them carefully and wrote many things on my documents, I understood that I should work on them. Now I think Google Docs was very helpful and inspired me to work more on writing and write better essays.

Interview sample excerpt 4, Informant 4, May 2015
Another group of 35% of them mentioned that from the beginning of the term, they found Google Docs very helpful and enjoyable and they wished they could use it for all their classes.

*I like working with technology very much; and consequently, I enjoyed writing process in the online environment, such as Google Docs. Google Docs improved our writing a lot and I think we should not at all say that learning writing skill in Google Docs wasted our time.*

Interview sample excerpt 5, Informant 5, May 2015

Finally, 10% of the students stated that they did not consider writing process through Google Docs useless and a waste of time and they knew that they learned many new things, but they believed they could learn those new points in other ways, apart from online environment.

*I don’t believe spending time on writing in Google Docs wasted my time and energy. And I reckoned that I learned some new things in Google Docs. However, since I don't like working with technology generally, I prefer to learn and practice writing in other instructional environments.*

Interview sample excerpt 6, Informant 6, May 2015

Question 2.1: If it led to success (improvement), how did Google Docs assist you in your writing performance?

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>They expressed they benefit from Google Docs which provided them with opportunity to share ideas and work collaboratively with their peers. (Collaborative learning).</td>
<td>10/20</td>
<td>50%</td>
</tr>
<tr>
<td>They found that Google Docs was an effective way to improve their writing by increasing interaction between teacher and them, through its changing feature. (Engaged learning)</td>
<td>7/20</td>
<td>35%</td>
</tr>
<tr>
<td>They thought that Google Docs grows their sense of responsibility of improving their writing essays and discovering their own mistakes by paying attention to their group members’ comments, and looking at the drafts of other students and read other peers’ suggestions on the peers’ drafts. (Sense of responsibility)</td>
<td>3/20</td>
<td>15%</td>
</tr>
</tbody>
</table>

Regarding students’ answers to this question, 50% of students emphasized the importance of interaction with other students and the social and collaborative nature of Google Docs.

*Well, I think that with the help of Google Docs, my peers and I could interact and communicate with one another, also give hands to one another by suggesting some comments on each other’s essays.*

Interview sample excerpt 7, Informant 7, May 2015

Another group of students (35%) mentioned that they found value in interaction with teacher and her valuable support which was available at any time through the chatting feature of Google Docs.
I find Google Docs helped us to easily communicate with the teacher, because there was a chatting option through which she responded to our questions and problems while writing essays and commenting on our peers’ essays. Actually, her responses were very useful and guide us a lot.

Interview sample excerpt 8, Informant 8, May 2015

Finally, 15% of the students stated that Google Docs as a collaborative learning environment increases self-directed learning skill and students’ responsibility to improve their writing by engaging the students in an environment to focus deeply on their peers’ comments, and other students’ essays.

I myself take advantage of this challenging environment (Google Docs) in which I have the opportunity to look at other students’ essays and find the pros and cons of their essays.

Interview sample excerpt 9, Informant 9, May 2015

Question 3: What features of Google Docs you find helpful in your success in writing performance?

Table: 8
Themes of the Third Interview

<table>
<thead>
<tr>
<th>Features of Google Docs</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chatting (teacher support)</td>
<td>18</td>
<td>33.33%</td>
</tr>
<tr>
<td>Keep students anonymous</td>
<td>15</td>
<td>27.77%</td>
</tr>
<tr>
<td>Research panel</td>
<td>10</td>
<td>18.51%</td>
</tr>
<tr>
<td>Notification via mobile phone</td>
<td>8</td>
<td>14.81%</td>
</tr>
<tr>
<td>Augmented learning</td>
<td>5</td>
<td>9.25%</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>

The first helpful feature of Google Docs which was emphasized by students was termed “chatting” (33.33%). The students found value in teacher support through the chatting option, for giving feedback on their peers’ essay, and also they mentioned that by chatting with the teacher, the students could ask some clarification questions in order to revise their essays on the basis of peers’ comments. They mentioned that they took advantage of this feature because teacher support was available at any time, and they did not have to wait for the class to discuss their problems with the teacher.

I believe that Google Docs provides the teacher with the opportunity to give me detailed response through chatting option. This supportive feature was very helpful through which the teacher clarified any parts of my peers’ comments.

Interview sample excerpt 10, Informant 10, May 2015

The second feature of Google Docs mentioned by students (27.77%) was its nature which can keep students anonymous for their peers. The students expressed that they had no fears about commenting on their peers’ essays because of their insured anonymity and they could express their ideas in their essays freely without feeling shy.

In Google Docs environment, I had a good experience and feeling. I didn’t afraid of sharing my essays with my peers since no one knows who wrote those essays. Actually, this online environment is very friendly and well-organized.

Interview sample excerpt 11, Informant 11, May 2015

Another feature of Google Docs highlighted by students as a helpful option was the “research panel” (18.51%), additional links provided in the Google Docs. The students expressed that while writing an essay, they could open a research panel where they could
quickly search the web to find more information on those topics about which they were supposed to write.

_I think that the availability of additional links in Google Docs help me a lot in writing better essays. In other words, those links were a starting point for me to study additional information on the topic of the essay._

Interview sample excerpt 12, Informant 12, May 2015

Another feature of Google Docs which students highlighted was its notification on their mobile phones (14.81%). In fact, they explained that when their peers commented on their essays, they received a Gmail notification on their mobile phones; as a consequence, their peers’ comments were available at any time, and they were not forced to wait for class to receive the peers’ comments. And they considered this feature as a time-saving option.

_Well, I find many helpful options in Google Docs which weren’t possible in face-to-face classes. For me, one of the attracting features was that we could be notified via our mobile phones whenever our peers commented on our essays._

Interview sample excerpt 13, Informant 13, May 2015

The fifth feature of Google Docs emerged from students’ interviews was “augmented learning” (9.25%). The students expressed that one of the good and helpful features of this online environment was that all the instructional materials were available in Google Docs and whenever they missed a class, they had access to material without any problems.

_In my opinion, one the most enjoyable features of Google Docs, was that we have always a backup of instructional materials in Google Docs. Whenever I lost the notes of class, I didn’t worry since I could get the lecture notes precisely._

Interview sample excerpt 14, Informant 14, May 2015

**Question 4: Have you faced any problems with Google Docs in the process of writing instruction while working? What kinds of problems?**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Number of Students</th>
<th>Percentage of the Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>They had no complaints about working with Google Docs for writing process</td>
<td>12/20</td>
<td>60%</td>
</tr>
<tr>
<td>They expressed that the only problem they have sometimes faced was the speed of internet connection which made working with Google Docs difficult.</td>
<td>5/20</td>
<td>25%</td>
</tr>
<tr>
<td>They expressed although they enjoyed working with Google Docs and took advantage of helpful features of Google Docs a lot, sometimes they had faced some technical problems; such as software compatibility, the shortness of chatting screen, difficulty with printing off their peers’ comments on their essays</td>
<td>3/20</td>
<td>15%</td>
</tr>
</tbody>
</table>

In answering the fourth question of the interview, 60% of the students were completely satisfied with working with Google Docs for practicing writing, and they had no complaints and problems.
Actually, Google Docs was very useful for sharing my essays with peers and receiving feedback from my peers. I didn’t face any problems while working with Google Docs during writing process.

Interview sample excerpt 15, Informant 15, May 2015

Among all the students, 25% of them pointed out the only problem that sometimes prevented them from working well with Google Docs for writing process was the speed of their Internet connection (slow Internet connection). Also, they appreciated the application of Google Docs in the writing process, and added they had no problem with Google Docs itself.

Everything was ok with Google Docs. To be honest, our home Internet connection was too slow; consequently, I faced difficulties while attempting to attach my documents. I had to repeat attaching my document as it didn’t get attached.

Interview sample excerpt 16, Informant 16, May 2015

The final group (15%) of the students expressed some of the technical problems of Google Docs and had high expectations of technology (Google Docs). However, they expressed their satisfaction with Google Docs and also mentioned many benefits of this online environment.

Firstly, I appreciate this online tool because of having a lot of helpful features. However, I found few problems while working with Google Docs. For instance, the chat screen was too short for typing. I wished there was a voice chatting feature in Google Docs instead of a chatting screen in which we should type because it took me a while to type whatever I want to ask.

Interview sample excerpt 17, Informant 17, May 2015

Question 5: What are the main factors causing your success or failure in this course? How? (Teacher, effort, ability, luck, task difficulty, etc.).

<table>
<thead>
<tr>
<th>Attribution</th>
<th>F</th>
<th>%</th>
<th>Internal/External</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort</td>
<td>18</td>
<td>24.32 %</td>
<td>I</td>
</tr>
<tr>
<td>Positive &amp; inspiring environment</td>
<td>15</td>
<td>20.27%</td>
<td>E</td>
</tr>
<tr>
<td>Peer feedback</td>
<td>13</td>
<td>17.56%</td>
<td>E</td>
</tr>
<tr>
<td>Interest in writing</td>
<td>10</td>
<td>13.51%</td>
<td>I</td>
</tr>
<tr>
<td>Teacher (support &amp; method)</td>
<td>8</td>
<td>10.81%</td>
<td>E</td>
</tr>
<tr>
<td>Praise (teacher inspiration)</td>
<td>5</td>
<td>6.75 %</td>
<td>E</td>
</tr>
<tr>
<td>Ability (intellectual ability)</td>
<td>3</td>
<td>4.05 %</td>
<td>I</td>
</tr>
<tr>
<td>Background knowledge</td>
<td>2</td>
<td>2.70 %</td>
<td>I</td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>100 %</td>
<td></td>
</tr>
</tbody>
</table>

As indicated in Table 10, the attribution “effort” (internal, unstable, controllable factor) was cited 18 times (24.32%). This category included practicing writing skill regularly, and attempting to improve writing skill.

In fact, I always practice writing skill without stop. Also, I repeatedly check my previous mistakes which were highlighted by my peers’ comments to improve my writing performance. I believed that my good grades of writing performance were due to my effort.

Interview sample excerpt 18, Informant 18, May 2015

100
The other attribution to emerge frequently (20.27%) was “positive and inspiring environment”. This category included statements such as positive environment of Google Docs, and involving in friendly environment, etc.

In my opinion, one of the important factors leading to my success in this writing course was “Google Docs”. Thanks to Google Docs, I have experienced a friendly environment which motivated me to work more on my essays; consequently, it led to my success.

Interview sample excerpt 19, Informant 19, May 2015

Another attribution stated by students (17.56%) was “peer feedback”. The analysis of students’ interviews revealed that they benefited from peer feedback in Google Docs. And they mentioned this kind of collaborative learning, receiving feedback from their peers, was very useful in their success in this writing course.

Well, I think my peers’ comments were one of the prominent causes leading to improvement in my writing performance. I enjoyed my peers’ feedback because receiving feedback from my friends and giving feedback to their essays were useful. Due to my peers’ comments, I made fewer mistakes in my essays.

Interview sample excerpt 20, Informant 20, May 2015

Additionally, the attribution “interest in writing” was mentioned 10 times (13.51%). Liking to learn EFL writing skill, enjoying writing courses a lot, wanting to improve /learn writing skill, and interest were classified under this category.

I’m interested in writing in English. In my opinion, writing is an important skill in the acquisition of a foreign language. I want to improve my writing performance for my future career as an EFL teacher.

Interview sample excerpt 21, Informant 21, May 2015

The next attribution (10.81%) which students stated was “the teacher”. This category refers to teacher’s support, teacher’s instructional method, and the interaction between teacher and students. The statements loving teacher, teacher’s ability in teaching in the best way, and teacher’s help were included in this category.

Whenever I faced a difficulty in understanding my peers’ comments on my essays, I asked the teacher those questions through chatting in Google Docs and the teacher clarified. Actually, her support was really helpful.

Interview sample excerpt 22, Informant 22, May 2015

Another referred attribution was termed “teacher’s praise” in their interviews. 6.75% of students emphasized the effective role of teacher’s inspiration in increasing their motivation to practice writing skill more, and consequently it led to their success in this writing course.

I remember the first time the instructor chose my essay as one of the best essays and shared it with other students via Google Docs entitled by my name. In fact, her praise made me more motivated and confident to work harder on my subsequent essays.

Interview sample excerpt 23, Informant 23, May 2015

One of the least frequently mentioned attributions (4.05%) was “ability” which is an internal factor. Statements feeling confident in my intellectual ability, thinking usually I’m intelligent in acquiring writing skill were classified in this category.
Without any exaggeration, I can say that I’m a good writer in English. The reason for this fact is that I have innate ability to acquire writing skill in any language and to write well.

Interview sample excerpt 24, Informant 24, May 2015

Surprisingly, the attribution “background knowledge” was the least frequently mentioned attributions (2.70%). Statements such as my previous knowledge, having practiced writing skill from elementary level at English institute were mentioned under this category.

Well, since I have practiced writing skill for three years in an EFL institute, I didn’t face any difficulties in writing generally. Also, fortunately, I had background knowledge about the topic of final writing test. So, I received a good grade on final writing test.

Interview sample excerpt 25, Informant 25, May 2015

<table>
<thead>
<tr>
<th>Attribution</th>
<th>F</th>
<th>%</th>
<th>Internal/External</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Effort</td>
<td>14</td>
<td>45.16%</td>
<td>I</td>
</tr>
<tr>
<td>Subject difficulty</td>
<td>7</td>
<td>22.58%</td>
<td>E</td>
</tr>
<tr>
<td>Lack of interest</td>
<td>5</td>
<td>16.12%</td>
<td>I</td>
</tr>
<tr>
<td>Anxiety</td>
<td>3</td>
<td>9.67%</td>
<td>I</td>
</tr>
<tr>
<td>Lack of ability</td>
<td>2</td>
<td>6.45%</td>
<td>I</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

“Lack of effort” (45.16%) was mentioned as one of the most significant causes leading to poor writing performance. Not practicing hard, not attempting enough to write essays, and not reading the assigned instructional textbook were the comments included in this category.

I confess that the only matter prevented me from writing my essays as good as I can do, was lack of my effort. I could receive a better grade but I didn’t study well.

Interview sample excerpt 26, Informant 26, May 2015

Moreover, the attribution “subject difficulty” was cited 7 times (22.58%) as a factor leading to failure. This category (as an external and uncontrollable factor) consisted of statements finding the topic of writing test difficult and weird and the difficulty of some instructional materials.

In my opinion, my writing performance is good. But, the major factor made me unsuccessful in this course was the complexity of writing tasks and their topics. For me, the final topic was very difficult, because I have no background knowledge about it.

Interview sample excerpt 27, Informant 27, May 2015

Another attribution which emerged from students’ interviews (16.12%) was “lack of interest”. Comments namely “disliking writing skill and practicing it”, “not being interested in the nature of writing”, and “not wanting to practice writing essays” were classified in this category.

I should say one of the main causes leading to my failure in this course was my lack of interest in writing skill. I really think that an elementary level of writing is enough for me to be a successful student in the university.

Interview sample excerpt 28, Informant 28, May 2015
Interestingly, a new attribution which was mentioned in students’ interviews (9.67%) was “anxiety”. This category was determined by comments such as "feeling of being fearful while working with technology" and "not having sufficient background knowledge about technology and computers".

Generally, I’m afraid of using technology because I think I would delete all necessary information of the computer by clicking on the wrong key of the computer. As a consequence, my fear of computer led me to do unsuccessfully in this course in spite of receiving good instruction on working with Google Docs and good instruction on writing.

Interview sample excerpt 29, Informant 29, May 2015

Another attribution which was referred less frequently (6.45%) was “lack of ability”. This category included statements such as "lacking the innate ability to learn how to write" and "being beyond my control and ability".

To be honest, my failure in this course is due to my innate inability to learn how to write. My writing performance is not good. Although I understand the teacher’s instructional materials providing the steps to write well, I cannot apply what I have learned in my writing performance. In my opinion, I can learn new things, but I cannot change my intelligence.

Interview sample excerpt 30, Informant 30, May 2015

DISCUSSIONS

The present study shed lights on investigating the possible effect of Google Docs-based writing instruction on Iranian EFL learners’ writing performance. It also examined students’ perceptions towards the effects of Google Docs and their perceived causes of success or failure in writing performance. With respect to the first research question, the result of a Paired Sample t-test indicated Google Docs environment enhanced students’ writing performance.

The result of the online class instruction improving Iranian EFL students’ writing performance is the same as the finding of Bagheri, Yamini, and Behjat’s (2013) study. They concluded that blended environment considerably enhanced EFL students’ writing performance. Also, this finding is especially in line with Garrison and Vaughan’s (2008) study showing the effectiveness of blended writing instruction in improving students’ learning outcomes.

The second and third research questions of the study focused on the learners’ perceptions towards the influence of Google Docs and causes leading to their success or failure in their writing performance. Students’ perceptions of their success or failure are important factors in language growth or even destruction and they play a key role in language learning and teaching (Brown, 2004).

The results of the semi-structured interview revealed the perception learners carry towards the focus of the study. The first four questions of the interview considered the learners’ attitudes towards Google Docs generally and specifically. The results of the interview indicated that students had positive attitudes towards practicing writing in Google Docs. In fact, the positive effectiveness of Google Docs in learning the writing skill was apparent in the students’ response. They found the writing process in this online environment enjoyable and helpful, and appreciated the application of Google Docs in their writing process.

According to Adas and Bakir (2013), implication of online environment is effective in improving students’ writing abilities in general, and increasing students’ motivation and
interest by providing the same material in different ways. Also, the result of students’ interviews is consistent with Airishi (2012) and Rahimi and Hosseini’s (2011) studies which showed that EFL students had positive attitude towards the implication of online tools in their EFL classes.

The search of 20 students’ causes for their success or failure in this course led to the identification of 13 causal attributions: “effort”, “positive environment”, “peer feedback”, “interest in writing”, “teacher’s support”, “praise”, “ability”, “background knowledge”, “lack of effort”, “subject difficulty”, “lack of interest”, “anxiety”, and “lack of ability”. Of the 13 causal attributions, only “subject difficulty”, “effort/lack of effort”, and “ability/lack of ability” were amongst the four causes—“ability”, “effort”, “task difficulty”, and “luck” presented by Weiner’s (1986) model. Luck was not mentioned by any participants in this study. The reason for not citing ‘luck’ was probably because writing exams in this course were not conducted in multiple choice or a true/false question formats. Regarding these 13 cited attributions; it was revealed that students tended to have stronger attribution ratings for success than for failure.

In case of success, the results of students’ interviews revealed that effort (24.32%) and positive environment (20.27%) were the most commonly causes for this writing course outcome. This finding is in line with the results of Parsons, Meece, Adler, and Kaczala (1982) and William, Burden, and Al-Baharna’s (2001) studies showing that effort, as an internal attribution, was one of the most commonly causal attributions for the students’ success. The effectiveness of other causal attribution (positive environment as an external attribution) for students’ success in this study is also cited in Yilmaz’s (2012) study.

In this study, peer feedback as another external attribution, was also almost highly rated (17.56%) as the cause for success. This finding followed the results of Patri’s (2002) study which revealed the students’ positive attitudes towards the influence of peer feedback on their writing performance. The finding of this study is in contrast with Sengopta’s (1998) idea that students perceived teachers as the only transmitter of information and put little value on peer evaluation and they did not find it effective in leading to autonomous and successful learning.

By analyzing the students’ interviews, it was revealed that the attributions, namely “interest in writing” and “teacher support” were rated as moderately significant causes for success in writing. The finding of this study is in line with the result of the study conducted by Yaghoubi and Rasouli (2015) which investigated Iranian high school students’ attribution for success in language learning, and revealed that “interest” was rated as an important reason for their success, but having less importance or (to a less extent) than the attribution “effort”. The analysis of the results of interviews clearly indicated that some of students perceived the teacher as a supporter helping them in achieving success in writing performance. This finding can be explained by Asian culture, in which teachers are respected as an important person influencing students’ achievement. Also, the finding of the study conducted by Thang and Azarina (2007) indicating students’ great trust in the teachers’ capabilities of helping them to succeed in language learning, supports the finding of the present study.

A comparison across the frequency of attributions revealed that “teacher praise” (6.75%), “ability” (4.05%), and “background knowledge” (2.70%) were not frequently endorsed causal attributions. The finding of this study revealed teacher praise is an effective factor for motivating students to try harder to achieve better writing performance. This finding is among the results of Hawkins and Heflin’s (2011) study indicating that students perceived teacher praise as a causal attribution for success.

Of the found attribution category for success, the attribution “ability” was cited 4.05% in students’ statements. The results of this study indicated those students who perceived their intellectual ability as a predictor of success, their self-efficacy beliefs and self-confidence
would be increased. It supports Hsieh and Schallert’s (2008) idea regarding the attribution of “ability”. Also, this finding is in line with Graham’s (2004) study which identified intellectual ability as a cause for EFL students’ success.

The least rated attribution implied from students’ interview was “background knowledge” (2.70%). A few students expressed that their familiarity with topics of writing essays or their background knowledge had a significant impact on their writing performance. Regarding the positive and influential topic familiarity on achieving success in language learning, the results are in line with Pulido’s (2007) finding. In contrast, the finding contradicts Combs’s (2008) study revealing that topic familiarity did not significantly influence success in language learning. Moreover, it is in contrast with the finding of Salimi and Fatollahnejad’s (2012) study in which the students expressed that their background knowledge or topic familiarity did not have any effects on their writing performance.

The analysis of students’ statements revealed that “lack of effort” was perceived more important than other causes for students’ failure; as a consequence, the students took the responsibility of these writing course outcomes. It supports Weiner’s (1985) idea that the students who attributed their failure to lack of effort, experienced the feeling of guilt; but it is a stepping stone for them to try harder to achieve better outcomes in future tasks. Also, this finding is in line with the results of Hsieh and Schallert (2008), who investigated Spanish, German, and French students finding themselves as unsuccessful learners and attributing their failure to “lack of effort”. One justification behind this finding is that students who perceived their failure as a consequence of lack of effort, do not see failure as a reflection of their intelligence, but they consider it as an opportunity for improvement. This supports Covington and Omelich’s (1979, cited in Perrin, O’Neil, Grimes, & Bryson, 2014) idea stating that in order to preserve their self-worth, students prefer to consider lack of effort as the cause for failure rather than their lack of ability.

Another referred attribution in students’ statements regarding their failure was “subject/task difficulty”. In this study, some students mentioned that the difficulty of writing tasks and the topics of essays significantly affected their writing performance. This finding is in line with Graham’s (2004) study investigating French students’ perceptions about the reasons for their failure. The result of his study revealed that French students attributed their failure to low ability and task difficulty. In the same vein, in his study, Takashi (2003) revealed that university students perceived the learning environment and task difficulty as the reasons hindering their success.

The attribution “lack of interest” was referred moderately by students as the reason for their failure. According to Boruchovich’s (2004) idea stating that attributing failure to lack of interest and laziness leads learners to think they can succeed whenever they become interested in subject for subsequent tasks.

In this study, anxiety towards using technology was also cited (9.67%) as a cause for failure. There were a few students feeling fear while working with technological tools and computers; as a consequence, these students mentioned this anxiety made it impossible for them to succeed in writing performance. This finding is in line with the results of Hwang and Huang’s (2010) study revealing that computer anxiety (as an external factor) was one of causal attributions confessed by the students. Also, there are some other studies (Brosnan, 1998; Kernan & Howard, 1990) showing that computer anxiety was mentioned as one of causes for failure in blended classrooms.

The least cited reason for failure was “lack of ability”. In this study, a few students attributed their failure to an internal attribution, namely their lack of ability. This supports students’ theories of intelligence, including fixed entity theory and incremental theory. In this way, students who considered their intelligence as a fixed trait, believed they had a fixed amount of intelligence. It was very dangerous that these students attributed their failure to lack of ability, because this belief led to their inability to have any control over
the situations (Dweck, 2000). On the other hand, in case of attributing failure to lack of ability, the students who hold an incremental theory of intelligence, tended to work harder to develop their ability to overcome this failure (Dweck & Leggett, 1988). The finding of this study regarding attributing failure to lack of ability supports the results of Gobel and Mori (2007). However, it is in contrast with Weiner’s (2001) idea of self-productive bias, in which individuals attribute their failure to external causes.

CONCLUSION AND PEDAGOGICAL IMPLICATIONS

The findings obtained in this study have led to the conclusion that Google Docs environment had statistically significant effect on improving learners' writing performance. Considering the second research question which was an attempt to identify the perceptions of the Google Docs-based students towards the causes of their success or failure, it was indicated that students perceived both internal and external causes as influential factors in their success and failure; but for failure, internal factors were almost more than external ones. Regarding the third research question which revolved around identifying the students’ perception towards the impact of Google Docs on their success or failure in writing performance, the analysis of students’ interviews revealed that the students showed interest in using Google Docs in their writing classes, and generally they expressed positive attitude towards the implication of this online tool as a factor leading to success in writing performance.

Generally, the findings of this study have important implications for EFL teachers and syllabus designers, because it familiarizes them with the positive psychological effects of Google Docs which promote teacher-student interaction through its chatting feature. In addition, this study contributed to knowledge in the field of foreign language writing because it illuminated how EFL writing students responded to the use of Google Docs for writing process tasks and receiving feedback. With the knowledge gained from this study, it is possible for foreign language educators, researchers, and curriculum and instructional technology planners to gain insight into how students use Google Docs for cross-cultural interaction and writing skills development. Besides, the findings of this study revealed the importance of familiarizing students with different online educational tools (such as Google Docs) in reducing their negative attitude and feelings towards computers and increasing their confidence in using these tools for EFL learning.

Finally, the finding emerged from this study has implication for pre-service teacher-training programs, because it familiarizes teachers with attributional causes for success and failure and their important roles in EFL writing classes; as a consequence, the teachers can promote those useful attributions which have positive and long-term effects on students’ success.

BIODATA AND CONTACT ADDRESSES OF THE AUTHORS

Dr. Zari Sadat SEYYEDREZAIE got her Ph.D in TEFL from Ferdowsi University of Mashhad. She received MA degree in TEFL from Islamic Azad University, Science and Research branch, Tehran. She is currently teaching undergraduate and MA-level courses in different universities of Golestan province. She has presented several papers in International and national conferences in different countries and also published some papers in international journals. Her major areas of interest are CALL, language teaching methodology, and sociolinguistics.

Zari Sadat SEYYEDREZAIE
Ph.D. in TEFL, Ferdowsi University of Mashhad,
International Campus, Iran
Phone: +989112692637
Email: zariseyyedrezaie@stu.um.ac.ir
Prof. Dr. Behzad GHONSOOLY is a professor at Ferdowsi University of Mashhad. He got his Ph.D in applied linguistics from Stirling University. He has published several books and articles in different local and international journals. He is the editor in chief of Journal of Language and Translation Studies and a member of editorial board of different international and national journals including Iranian Journal of Language Teaching Research. His main research interests are language testing, ESP, and translation studies.

Behzad GHONSOOLY
Professor, English Department,
Ferdowsi University of Mashhad, Iran
Phone: +989153107695
Email: Ghonsooly@um.ac.ir

Dr. Hesamoddin SHAHRIARI is an assistant professor of Applied Linguistics at the department of English, faculty of letters and humanities, Ferdowsi University of Mashhad, where he teaches undergraduate and MA-level courses. Also, he is an educational supervisor at Language Academy, one of the leading language institutes in Iran, offering preparation courses for international examinations such as the TOEFL, IELTS and GRE. His research interests include formulaic language and corpus linguistics.

Hesamoddin SHAHRIARI
Assistant Professor, English Department,
Ferdowsi University of Mashhad, Iran
Phone: +989155101544
Email: h.shahriari@um.ac.ir

Dr. Azar Hosseini FATEMI is an associate professor, Ferdowsi University of Mashhad, Iran. She got her BA degree in English Language and Literature from Ferdowsi University of Mashhad, Iran. She has received MA degree in TEFL from New Mexico, State University, USA in 1980, and Ph.D degree from Panjab University. She has published several articles in different journals. She is a member of editorial board of “Ferdowsi Review, An Iranian Journal of TESOL, Literature and Translation Studies”. Her areas of interest include issues in second language teaching and learning, and sociolinguistics.

Azar Hosseini FATEMI
Associate Professor, English Department,
Ferdowsi University of Mashhad, Iran
Phone: +989155241822
Email: hfatemi@um.ac.ir

REFERENCES


