Fostering EFL Learners' Classroom Engagement: Does Collaborative Writing through Google Docs Make a Difference?

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Abstract

The present study investigated the impact of Iranian learners' collaborative writing through Google Docs on their classroom engagement. To attain the purpose of the study, 50 Iranian EFL learners were selected. Two instruments were used to gather the required data: a classroom engagement questionnaire and a semi-structured interview. In the first session, the first researcher/teacher asked the participants of both groups to fill out the engagement scale as the pre-test. The experimental group received a 60-minute training session to acquaint them with collaborative writing and engage in pre-task modeling of collaboration. The experimental group received online collaborative writing using Google Docs during the study intervention, while the control group underwent conventional teaching methods. At the end of the treatment, both groups took a post-test. Descriptive statistics and independent samples t-tests were used to analyze the obtained data. The results revealed that collaborative writing through Google Docs significantly affects the participants' classroom engagement since the experimental group participants outperformed the control group participants in the post-test. The obtained data from the interview were reported qualitatively. The results revealed participants' positive views regarding using Google Docs, and they provided their ideas regarding its use in future courses. The findings have implications for EFL teachers and learners.

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Introduction

For decades, English language instructors have tried to find valuable ways to enhance learners' classroom engagement. Engagement of learners is defined as the extent to which students actively participate in their learning and their sense of connection to their classes, peers, and educational institutions (Axelson & Flick, 2010). The literature has shown that there is a positive relationship between learner engagement and course satisfaction (Swan, 2001; Wefald & Downey, 2009), persistence (Berger & Milem, 1999; Kuh et al., 2008), and academic success (Carini et al., 2006). Accordingly, teachers are eager to develop students' engagement in the classroom to help them become more proficient learners.

Since the 1950s, there has been a change in language classes from teacher-centeredness to learner-centeredness (Brown, 1987), and accordingly, teaching writing skills has become more common among language teachers and students (Ozdemir & Aydin, 2015). According to Williams (2012), writing should not be viewed solely as an outcome of language learning but as a dynamic process or instrument that enhances learning in a second language. Writing provides learners with more chances to learn to use language than those presented by oral interaction since the slower pace at which written discourse is developed lets students think about the language they use and allows them to evaluate it (Hirvela et al., 2016). Moreover, writing continuity lets students return to writing and assess and re-evaluate their language use (Adams, 2003).

A challenge in EFL courses with independent writing is the absence of continuous feedback that an interlocutor can offer during oral interaction, including cues indicating a lack of complete understanding of the linguistic product (Storch, 2013). In contrast, as emphasized by Storch (2013), collaborative writing addresses this limitation by offering learners abundant chances to give and receive substantial and timely feedback, potentially enhancing their learning opportunities (p. 156).

Theoretically and empirically, collaborative writing has gained considerable attention from researchers and educators (Fernández-Dobao, 2020; Storch, 2005). It is "an activity with a shared and negotiated decision-making process and a shared responsibility for producing a single text" (Storch, 2013, p. 3). Typically, this writing approach involves interaction among students in creating a written text. The significance of interaction in the learning process has been widely recognized (Kieser & Golden, 2009). Peer interaction enhances learner engagement, problem-solving skills, and information-seeking competencies (Kieser & Golden, 2009). Effective interaction among learners requires a comfortable, non-threatening environment and rich social settings (Aghaee & Keller, 2016). However, the emergence of educational technology and online engagement tools has addressed some of these challenges, providing students ample time and none-threatening conditions to foster positive and active learning interactions with their peers

(Sotillo, 2002). Online interactive platforms encourage collaboration and mitigate uneven student involvement issues (Parsazadeh et al., 2018). Therefore, collaborative writing, especially using technology like Google Docs, may offer increased advantages in the current era (Woo et al., 2013).

Since L2 engagement may contribute to raising students' learning outcomes (Jarvela & Renninger, 2014; Philp & Nakamura, 2017), the present study aims to investigate the impact of Iranian EFL learners' collaborative writing through Google Docs on their classroom engagement. Moreover, this study explores Iranian intermediate EFL learners' attitudes towards the role of Google Docs in classroom engagement.

Literature review

Engagement

Reschly and Christenson (2012) argue that there is still conceptual vagueness around the engagement construct and no unifying definition (Lester, 2013). As stated by Coates (2006), the conceptualization of engagement is influenced by various learning theories, from early behaviorist perspectives to cognitive and social constructivist theories, leading to changes over time. Trowler (2010) attributes the origin of the term "engagement" to Astin's (1984) work on learner participation. Behaviorist ideas shaped initial perspectives, emphasizing the significance of observable individual behaviors. Additionally, engagement is viewed as a form of distributed agency, with the impact of a learning environment on this agency being mediated through reflexivity (Kahn, 2014).

Classroom engagement is characterized by a student's enthusiastic involvement in learning activities within the classroom setting (Reeve et al., 2004). This encompasses the attention, interest, active participation, and effort students exert in the learning tasks within the classroom environment (Marks, 2000). According to Fredricks et al. (2004), the three dimensions of engagement are affective (emotional), cognitive, and behavioral. Positive feelings like curiosity, enjoyment, and excitement are examples of affective engagement in the classroom (Skinner et al., 2009). Behavioral engagement may be characterized as time on task, overt attention, classroom involvement, questioning, and the selection of challenging activities (Wang et al., 2014). Meaningful processing, strategy utilization, attention, and metacognition are all examples of cognitive engagement. (Wang et al., 2014).

Student engagement, based on Tross et al. (2000), indirectly enhances their grades and academic advancement. In this regard, Gunuc (2014) states that a lack of student involvement leads to dissatisfaction, which affects academic progress. In the same vein, Krause (2005) stressed the importance of student involvement, arguing that it leads to several positive results like perseverance and satisfaction, both of which are important for

academic achievement. Finn and Zimmer (2012) stressed the relevance of student participation in increasing learning quality, and Guthrie et al. (2012) suggested that learners' behavioral engagement impacts the quality of their learning experience.

Previous research has linked student engagement to improved general and intellectual abilities (Pike et al., 2003), practical competence, and other skills like critical thinking and cognitive development. According to Kuh et al. (2008), disengaged kids miss opportunities to improve emotionally and academically. Higher levels of engagement in the shape of a more profound feeling of belonging and connection to peers and the learning setting, deemed by scholars such as McMahon and Portelli (2004)as the pinnacle of psychological engagement, do not necessarily imply enhanced performance.

Researchers describe engagement as when a learner actively participates in learning—like experimenting, attending, conversing, enquiring, answering, and taking notes (Hattie, 2009). Engaging learners is achievable when learning goals are apparent and emphasized, clear success criteria are provided, and the learning process is visible to pupils (Hattie, 2009).

Collaborative writing

Collaborative writing is precisely characterized as an activity involving a joint and negotiated decision-making process and shared responsibility for creating a singletext (Gündüz, 2023). Collaborative or team writing is the process of generating writtenwork as a group, with all team members contributing to the material and making choiceson the group's operation. Collaborative learning of writing skills is stronglyrecommended in our learning environment, where students must be at the center of the classroom and engage as much as possible with their peers. Collaborative writing is a very inspiring learning experience for EFL/ESL students and a creative tool for teachers (Montero, 2005, p. 38).

In establishing functional and dynamic learning environments, student collaboration through Google Docs is an intriguing alternative (Suwantarathip & Wichadee, 2014). Google Docs is a popular collaborative writing tool that is part of Google's Google Drive service, including a free web-based software office suite. People may create and modify papers online while collaborating in real time with other users. It provides for a smooth and speedy exchange of information among group members. Collaboration is greatly facilitated by the ability to exchange and modify documents among group members (Chiu et al., 2014). Students may share a draft throughemail or Google Docs, where they can rapidly modify and offer feedback, saving them from having to rewrite their drafts (Curtis, 2013). Google Docs also removes geographical barriers, making it easy to work from anywhere on the planet. Students are also encouraged to respond to their professors' and peers' remarks on Google Docs, which

increases their motivation (Al-Chibani, 2014). This uneven sharing of experiences until the final product is created helps to keep students' motivation levels high (Suwantarathip & Wichadee, 2014).

Collaborative writing also involves students in distinct roles that they would not ordinarily play while doing solo writing. As a result, this writing technique requires them to do activities they would not typically perform (Storch, 2013). While writing cooperatively, as Storch puts it, students can function as co-authors, sounding boards, critical peers, and tutors. Because learners perform diverse duties while performing these roles, learners may have different chances to learn about language utilizationin writing and written conversation. This might involve explaining, offering feedback, soliciting perspectives, or mentioning disagreement with learners, all of which, accordingto Storch (2013), are activities that are seldom performed in a teacher-led class and are not a necessary aspect of independent writing. Students might learn while writing because of the debate between pupils when they are engaged in these actions.

Technology in the EFL context

The imperatives of the era characterized by knowledge and information and the necessity to keep pace with advancements in information technology within Iran have prompted the government to invest heavily in the swift growth of information and communication technology (ICT). It was recognized that ICT has the potential to significantly influence the attainment of distinct social and economic development objectives and serves a pivotal function in broader national development strategies. As such, the Education Ministry of Iran has developed a charter to steer changes in the country's education system, with the integration of ICT being a fundamental aspect. The significance of an education aligned with the requirements of individuals and society is more pronounced today than ever. In a world interconnected byinformation networks, there is a heightened need for a workforce equipped with the skillsto utilize technology to improve productivity and foster innovation effectively.

Meanwhile, the outbreak of COVID-19 had an unprecedented effect on education worldwide. The global impact of the coronavirus pandemic extended beyond public health challenges to disrupt education worldwide. Despite significant human and financial losses globally, the pandemic presented an unparalleled opportunity for the educational system to adopt and integrate online learning systems into its primary instructional plans. In response to the virus's spread, Iranian universities, like many others globally, transitioned to distance education. Having already completed two semesters of online education, a necessity arose to address the quality of online assessments to evaluate the effectiveness of online pedagogical practices and ensureaccountability (Farahian et al., 2023).

Various tools such as forums, blogs, wikis, and Google Docs have also been utilized in second-language writing courses. These tools offer opportunities for teachers to create online interactive environments for collaborative writing, enabling EFL learners to receive feedback from their teachers and peers. Engaging in peer feedback and peer editing of writing is facilitated through these platforms (Dizon, 2016; Strobl, 2013). Considering the beneficial features that Google Docs offers for writing courses, including peer feedback, peer editing, redrafting, and tracking changes to texts (Semeraro & Moore, 2016), garnering additional empirical support for the effectiveness of Google Docs could present a promising technology application for EFL writing instruction. (Fathi et al., 2021). Moreover, although many studies have been done to explore the utilization of Google Docs in collaborative EFL writing courses, its effect on some factors, such as student engagement, has not received enough attention (e.g., Fathi et al., 2021; Kitjaroonchai & Suppasetseree, 2021).

In addition, the main aim of most of the previous research on the use of collaborative writing in EFL classrooms was to investigate the difference between writing produced collaboratively and writing that is developed individually (e.g., Dobao, 2012; McDonough et al., 2018; Storch, 2005; Storch & Wigglesworth, 2007; Villarreal & Gil-Sarratea, 2020; Wigglesworth & Storch, 2009). Kang and Lee (2019) explained that students engaging in collaborative work can achieve the same level of performance, and their writing skills will also improve. Accordingly, as an attempt to shed more light on the potential effects of using Google Docs on Iranian learners' classroom engagement, the present study has been carried out. Accordingly, the following research questions were proposed.

- Does collaborative digital writing through Google Docs significantly improve EFL students' classroom engagement?
- What is the perception of the experimental group towards collaborative digital writing through Google Docs?

Method

Design

This study adopted a quasi-experimental design with the inclusion of experimental and control groups. This experimental study followed a pre-post-test research design to investigate the effect of providing comprehensive feedback. Since the researcher chose the participants from two intact classes and randomly assigned them to experimental and control groups, the present study was quasi-experimental.

Participants

Fifty intermediate EFL learners from a language school in Kermanshah, Iran,

participatedin the study. Using available sampling, the researcher used two intact classes. The participants were randomly assigned to control and experimental groups. They were both male and female. They were native speakers of Persian and studied English as a foreign language. The control group participants used the conventional teaching method, and the experimental group participants were instructed to use digital writing in Google Docs during the study.

Instruments

Two instruments were used in the current study to gather the required data.

The Classroom Engagement Scale

Reeve and Tseng (2011) developed the students' engagement scale. The scale includes four subscales: behavioral engagement items, Agentic engagement items, Cognitive engagement items, and emotional engagement items. The questionnairecomprises a total of 22 items, categorized into cognitive (items 1-7), emotional (items 8-14), and behavioral (items 15-22) dimensions. Reeve and Tseng (2011) have substantiatedthe questionnaire's validity, and its reliability in Iran was reported by Hajalizadeh (2016)as 0.87, indicating an acceptable level of reliability.

Google Docs

Google Docs originated by Godwin-Jones (2008) and has become widely acclaimed for peer editing due to its collaborative nature, where both authors and reviewers can enhance or modify the published text (Niess & Gillow-Wiles, 2015). For students utilizing Google Docs, changes are automatically saved, and revisions are tracked, facilitating seamless editing processes. Prior research indicates that students engage in various editing activities on Google Docs, such as adding, deleting, rearranging, and substituting text at different levels, from words to aspects beyond sentences (Woodard & Babcock, 2014).

In collaborative writing scenarios, Google Docs effectively solves students' challenges. While it encompasses tools like Word documents, spreadsheets, and presentation packages, its word processing practicality stands out in educational settings. Google Docs enables collaborative paper composing and editing across differentdevices, fostering student collaboration in writing tasks and streamlining the completion of assignments. Additionally, it offers features allowing teachers and students to provide comments and suggestions on papers during writing classes (Angelo et al., 2018). This facilitates easy monitoring and assessment of student activity within groups for educators.

Interview

A semi-structured interview was used to assess the perceptions of the participants of the experimental group regarding using Google Docs. The other aim of this interview was to find the level of their familiarity with digital writing in Google Docs and their motivation to use it. Before the interviews, the interviewees were briefed on the interview's objectives. They were assured that their responses would remain confidentialand that their identities would not be disclosed. Each interview comprised four open-ended questions, as detailed in the Appendix, and typically lasted 10 to 15 minutes. These interviews were conducted in English via Skype with the chosen participants. Subsequently, all interview recordings were transcribed for thematic analysis.

Procedure

The following stages were followed to conduct the current study. At the first stage of this study, the researchers chose two intact classes (n=50)in a language school in Kermanshah to participate in this study. Then, they were classified into two groups: control and experimental. In the first session of the class, the first researcher asked the participants of both groups to fill in the engagement questionnaire as the pre-test. The experimental group then received a 60-minute training session to acquaint them with collaborative writing and engaged in pre-task modeling of collaboration. The experimental group received online collaborative writing using Google Docs during the study intervention, while the control group underwent traditional teaching methods. The treatment included different kinds of writing tasks. For each session, the teacher showed the students of both groups the same pictures and asked themto write a short essay with at least 50 words. The control group participants wrotetheir writings in the classroom, and the experimental group members did their tasks using digital writing in Google Docs. In the experimental group, students collaboratedin small groups of three to four members. In contrast, the control group completed the same tasks individually and only received feedback after the study. At the end of the treatment, both groups took the post-test, which was the sameas the pretest. The first researcher observed and gathered written drafts from both groupsafter each class, closely monitoring all writing assignments. Throughout the sessions, participants in the experimental group were consistently encouraged to collaborate on the entire writing process, including prewriting, drafting, revising, editing, and generating the final written product.

At the next study stage, the participants were asked to answer the questionnaire items as the post-test. The results were used to investigate the effect of the treatment on the level of engagement of the experimental group participants. In the last stage, interviews were conducted with 10 randomly selected participants from the experimental group. These interviews took place via Skype and took 10 to 15 minutes for each learner.

Data Analysis

Descriptive and inferential statistics were used to analyze the data obtained from the engagement questionnaire and answer the current study's research questions. Descriptive statistics and an independent samples t-test were used to answer the first research question. This test compared the experimental and control groups' answers to the questionnaire's items in the pre-test and post-test. The interview results regarding the second research question were thematically analyzed and reported qualitatively.

Results

The One-Sample Kolmogorov-Smirnov Test was utilized to determine the acquired data's normality before data analysis. The results of this test are reported in Table 1.

One-Sample Kolmogorov- Smirnov Test of All Data

		pretest	posttest
N		50	49
Normal Parameters[a]	Mean	42.9600	63.0408
	Std. Deviation	1.04314E1	2.45993E1
Most Extreme Differences	Absolute	.131	.148
	Positive	.093	.148
	Negative	-.131	-.088
Kolmogorov-Smirnov Z		.924	1.038
Asymp. Sig. (2-tailed)		.360	.232

a. Test distribution is Normal.

Table 1 shows the results of the One-Sample Kolmogorov-Smirnov Test of pretests and posttests of classroom engagement. The results showed that the data of all the tests were expected because the significance of all the variables was more than 0.05. Accordingly, parametric tests were possible to analyze the data.

The first research question sought to determine whether collaborative digital writing through Google Docs significantly improves EFL students' classroom engagement. As mentioned in the previous chapter, a questionnaire was used to gather the required data to answer this research question. At the first stage of data collection, a pre-test of classroom engagement was performed to clarify the participants' initial level of engagement. Descriptive statistics was performed to analyze the obtained data, and the results are reported in the following table.

Table 2

Descriptive Statistics of Pretests of Classroom Engagement of Experimental and Control Groups

	Groups	N	Mean	Std. Deviation	Std. Error Mean
pretest	Control	25	43.12	10.67	2.13
	Experimental	25	42.80	10.39	2.07

As is seen from the above Table, the mean scores of the control and experimental groups on pre-tests of classroom engagement are 43.12 and 42.80, respectively. The standard deviations of classroom engagement pre-tests for the control and experimental groups are 10.67 and 10.39, respectively. This Table indicates no significant difference between the pre-test mean scores. Then, during the subsequent data analysis step, an Independent Sample t-test was conducted to compare the mean pre-test scores of the experimental and control groups. The following Table depicts the outcomes of the Independent Sample t-test for the classroom engagement pre-tests of thecontrol and experimental groups.

Table 3

Independent Sample T-test of Classroom Engagement Pretests of Experimental and Control Groups

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pretest	Equal variances assumed	.065	.800	.107	48	.915	.320	2.98	-5.67	6.31
	Equal variances not assumed			.107	4.79	.915	.320	2.98	-5.67	6.31

As the Table illustrates, under the premise of variance equality, the result of Levene's test indicates that in the independent sample t-test, the sig =0.915, and since sig>0.05, there is no significant difference in the mean scores of the two groups pre-tests of classroom engagement. Accordingly, there is no significant difference between the two groups' pre-tests of classroom engagement.

Descriptive statistics were used to compare the mean post-test classroom engagement scores in the control and experimental groups. The results are reported in Table 4.

Table 4
Descriptive Statistics of Post-tests of Classroom Engagement of Control and Experimental Groups

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-test	Control	25	44.56	10.31	2.06
	Experimental	25	84.64	15.90	3.18

According to the above Table, the mean scores of the control and experimental groups are 44.56 and 84.64, respectively. The Std. deviation of control and experimental groups are 10.31 and 15.90, respectively.

An Independent Samples t-test was conducted to determine the effect of treatment on experimental group classroom engagement. This test was used to compare the post-test results of the experimental and control groups on classroom engagement. The test results are presented in the following Table.

Table 5
Independent Samples t-test of Mean Scores of Posttests of Classroom Engagement of Experimental and Control Groups

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Differ	Std. Error Differ	Lower	Upper
Post-test	Equal variances assumed	6.49	.014	-1.10	48	.000	-4.17	3.79	-49.3	-3.40
	Equal variances are not assumed.			-1.10	4.11	.000	-4.17	3.79	-49.3	-3.40

Under the premise of variance equality, the outcome of Levene's test indicates that the sig is 0.00 and sig<0.05. The findings of this test indicate that there is a significant difference between the mean post-test scores of classroom engagement for the control group and the experimental group. This test reveals that the mean score of the experimental group is greater than that of the control group. The results indicated that collaborative digital writing using Google Docs significantly increases EFL students' classroom engagement.

The second research question of the current study aimed to find the perception of the participants of the experimental group regarding collaborative digital writing through Google Docs. The required data to answer this research question was gathered using an interview with four questions. The participants' answers to these questions are reported qualitatively. To answer thefirst question, some students stated that using Google Docs is an effective and reliable tool to improve their language skills. They added that collaborative writing using Google Docs resulted in gaining more knowledge and consequently made them more proficient. They added that it made them more eager to try to learn new things in language learning and work more collaboratively with their classmates. For example, one of the learners stated that:

> *Since I had to collaborate with my classmates on collaborative writing through Google Docs, I tried to prepare myself for collaboration in different stages of writing. Therefore, this preparation made me more proficient, especially in writing skills. Moreover, when my classmates mentioned my errors, I tried to check and find ways to solve them.*

The second interview question asked the learners if they wanted to improve their engagement in the classroom by using digital writing in Google Docs. Students concurred that online learning tools, particularly Google Docs, favorably affect group interaction and classroom engagement. They highlighted students' adaptability to new technologies, noting that these tools foster an environment conducive to increased class participation. They claimed that with Google Docs, teachers and students connect and chat, increasing classroom engagement. One of the students stated that adopting online learning tools such as Google Docs is an excellent approach to increase classroom engagement, especially among introverted students. She noted that because she is a shy student, she could not communicate with her peers face-to-face, and online options helped her become more interested in classroom activities. She added thatusing Google Docs helped her become more confident in face-to-face communication since online tools helped her feel more comfortable communicating with others. One of the students strongly disagrees that GoogleDocs can be used to establish a collaborative learning environment since this is their firsttime using the program, and they are inexperienced.

With online engagement processes, she noted that since it was not easy for her to use Google Docs as a new educational platform and created some challenges for her, it

cannot be used to establish a collaborative learning environment. She added that she prefers face-to-face interaction and collaboration with her classmates.

Students expressed enthusiasm for learning new materials when asked about their willingness to use Google Docs for future studies. Many stated they would use Google Docs because it automatically saves all the documents they create, making it a convenient tool for their studies. This eagerness to learn new materials is a testament to the potential of these tools to foster a love for learning.

I am unsure if I would be eager to use Google Docs again because it can only be accessed with an internet connection, which I do not always have.

Moreover, some other students mentioned that they would consider using GoogleDocs again because they are helpful and easy to use. They added that they would like tocomplete similar writing tasks again because they practiced more and learned much fromthe experience. Moreover, some students mentioned using GoogleDocs as a new educational experience. On the contrary, one of the students disagrees withusing Google Docs for future studies because she is not accustomed to using technologyin her language courses. She added that since she does not tend to usetechnology in her language courses, she prefers traditional language learning methods.The last interview question asked the learners how technology can help EFL learners improve their engagement. According to the students, technology gives simpleaccess to knowledge, rapid learning, and enjoyable possibilities to apply what is learned.It allows students to study new topics and get a more profound knowledge of challenging themes.Students can teach one another through mentorship and cooperative creativity by workingon group projects or exchanging papers through technology. Since it is the age of technology, most people are keen to use it in all aspects of their lives, including schooling. Since most of them love utilizing technology for various tasks, they are more motivated to learn instructional content through technology.

Discussion and Conclusion

The current study attempted to investigate the impact of collaborative digital writing through Google Docs on EFL students' classroom engagement and to find their opinions regarding collaborative digital writing through Google Docs. The resultsof the current study regarding the first research question indicated that collaborative digital writing through Google Docs significantly affects the participants' classroom engagement. In other words, collaborative digital writing through Google Docs improved the participants' classroom engagement since the experimental group participants outperformed the control group in the pretest of classroom engagement. The results

revealed that the experimental group's progress in classroom engagement was

significantly higher than that of the control group. Insum, the results of this research indicated that the use of Google Docs for collaborative writing significantly enhanced the classroom engagement of Iranian EFL learners. Specifically, the study found that engaging in online collaborative writing, where learners shared and peer-edited their written assignments, significantly elevates engagement among EFL learners. Based on the results, the research hypothesis was rejected.

Numerous studies have evaluated the influence of online collaborative writing using Google Docs on various aspects and abilities of language acquisition, and their findings are consistent with the current findings. Together with the results of the current study, these studies demonstrate the benefits of online collaborative writing using Google Docs. For instance, Seyyedrezaie et al. (2016), Abrams (2019), Ebadi and Rahimi (2017), Fathi and Rahimi (2020), and Rahimi and Fathi (2021) discovered thepositive effect of online collaborative writing using Google Docs on a variety of language skills. Their findings are consistent with those of the present study. In addition, the present study's findings are consistent with those of Slavkov (2015), Yang (2010), and Alharbi (2019), who discovered that online collaborative writing using Google Docs had a considerable favorable influence on the language acquisition of EFL learners.

The second research question of the present study was an attempt to find the Iranian EFL learners' perceptions regarding collaborative digital writing through Google Docs. Generally, the students stated that using Google Docs is an effective and reliable tool to improve their language skills. Most of them had positive attitudes toward its use and were satisfied. They added that collaborative writing using Google Docs resulted in gaining more knowledge and consequently made them more proficient. They believed they had to prepare themselves to work with their classmates, which led to developing their language skills. Moreover, some of the learners stated that online learning tools had a favorable effect on group interaction and classroom engagement in terms of fostering an environment conducive to increased class participation. Meanwhile, some learners stated they are eager to use Google Docs for future studies because it automatically saves all the documents they create. They will consider using Google Docs again because they are helpful and easy to use. They added that they would like to complete similar writing tasks again because they practiced more and learned much from the experience. On the contrary, one of the students disagrees with using Google Docs for future studies because she is not accustomed to using technology in her language courses. Moreover, the participants added that technology gives simple access to knowledge, rapid learning, and enjoyable possibilities to apply what is learned. The results of the second research question of the study are in line with the results of Riley-Huff (2010), Marandi and Seyyedrezaie (2017), and Blau and Caspi (2009), who reported the learners' positive attitudes regarding collaborative writing using Google Docs.

The findings of this study suggest that Google Docs may be included in EFL courses to boost the efficacy of writing development by providing learners with online peer-editing capabilities, hence fostering the growth of learners' engagement. However, the successful integration of any technology into the regular curriculum requires that instructors and students be prepared with specific technological abilities crucial for the efficient use of technology for educational purposes (Fathi & Ebadi, 2020). Teachers of L2 writing should recognize and value Google Docs as a powerful tool that may facilitate interactive and collaborative learning in the L2 writing process. Therefore, teacher development programs may need to prepare pre-service EFL instructors with technical abilities and urge them to include digital devices in their L2 instruction and EFL writing courses in particular. In the interim, EFL students must be instructed on creating online Google Docs and sharing their written assignments with their classmates to edit and debate the difficulties, enhancing their language skills and level of classroom engagement.

It is important to note that this study has significant limitations. The participants in the experimental group had no prior experience utilizing Google Docs to enhance their level of engagement; therefore, a Hawthorne effect may have influenced their rise in classroom engagement. In addition, this study was conducted with a small number of students. Consequently, the researcher did not intend to generalize the study's findings.

Given that the participants in this study were few and had about the same level of general English competence, it is advised that future researchers do comparable studies with bigger sample sizes from diverse contexts and at varying proficiency levels. Other researchers can duplicate the current work and evaluate the impact of using Google Docs on the growth of other components of language acquisition.

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Appendix

1. Do you find Google Docs a reliable tool for enhancing your English skills?

2. Do you desire to improve your engagement in your classroom by using digitalwriting in Google Docs?

3. If you had the opportunity to use Google Docs for future studies, would you do so or not?

4. How can technology help EFL learners to improve their engagement?