Exploring the Impact of Common vs. Restricted Social Networks on English Foreign Language Learners' Writing Skill

Research Article

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Abstract

The appearance of different types of educational technology (Ed Tech) tools has paved the way for teachers and learners in all fields of study including second/foreign language learning in order to use them for making the education and learning process more fruitful and exciting. This study aimed to investigate and compare the impact of the common WhatsApp group in which participants could have interactions versus the restricted WhatsApp group in which participants did not have any interactions, as two quittances of social network groups on enhancing English Foreign Language (EFL) learners' writing ability with a focus on process analysis type of paragraph writing. In this regard, 64 intermediate EFL

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learners were homogenized through the administration of the Oxford Placement Test (OPT) and divided into two virtual groups randomly. Next, a paragraph writing pretest was administered, and then both virtual groups received the same treatment and material based on the Model-Practice-Effect instruction cycle. After the treatment sessions, the paragraph writing posttest was administered. Considering the purpose of the study, data analysis indicated that the participants in the common WhatsApp group who had experienced online interaction could significantly outperform the participants in the restricted WhatsApp group. The results and findings of this study can be useful for second/foreign language learners, teachers, researchers and experts in order to consider and become aware of the critical role of Ed Tech, as well as the central and important role of interaction in improving the quality of language teaching and learning process.

Keywords: common WhatsApp group, educational technology, restricted WhatsApp group, social networks, writing skills

Introduction

The development of educational technology (Ed Tech) tools has altered instructional-learning contexts and provided rich opportunities for learners of all majors of study in general and English as foreign language (EFL) learners in particular. Ed Tech-enhanced teaching and learning has facilitated the connections and helped student active engagement in the learning process. Seeing as the lives of today's generation of students or *Digital Natives*, as Prensky (2001) calls it, is dependent on Ed Tech, new types of instructional-learning contexts need to be integrated into the syllabus (Sah, 2015). In effect, the technological developments, the Internet, and new tendencies in the use of Ed Tech have resulted in changes in learning forms from conventional and traditional contexts to new forms of instructional-learning contexts and Ed Tech-enhanced teaching methods (e.g., Game-based Learning, Mobile Assisted Language Learning (MALL), Computer Assisted Language Learning (CALL), Mobile learning (M-learning), etc.).

Ed Tech-enhanced instructional-learning contexts have been identified as a set of teaching and learning modules that are trying to facilitate students' learning progress and performance in both academia and workplaces (Rouse, 2011). Ed Tech-enhanced instructional-learning context is defined as technology-enhanced context which allows communications and information sharing with other stakeholders, though it can be used to hold a complete online course, a blended course or as a supporting feature for face-to-face courses (Fahretin & Feyzi, 2013; Sneha & Nagaraja, 2013). On the words of Barker and Gossman (2013), the major goal of Ed Tech-enhanced instructional-learning contexts is to ease, motivate and provide learning experiences that go beyond the conventional teacher-centered classrooms. Research has showed that Ed Tech-enhanced instructional-learning context by allowing stakeholders to select and employ variegated resources and applications (apps) to review the course content, plays the role of supporting instruction (e.g., Ottesen, 2018; Stiller &

Schworm, 2019). Nowadays, the functionality of some Ed Tech-enhanced instructional and learning contexts is being developed on mobile devices, which, in turn, can consolidate the role of mobile devices in language education, that is to say, M-learning context.

Over the last few decades among all different functions, M-learning has been mainly employed for amateur purposes. However, the availability of Ed Tech-enhanced platforms on these devices can render even greater benefits for both stakeholders in language education (Sneha & Nagaraja, 2013). This way, the mobile apps have set the scene for more effective and attractive learning of second/foreign language. According to Barbaux (2006), in order to meet the expectations and needs of *Digital Natives*, educational authorities in all fields of study including second/foreign language learning should transfer the teaching methods and techniques of Traditional learning (T-learning) contexts to the new instructional-learning contexts. Among the new forms of learning contexts, teaching through social networks is known to be more flexible and operational mainly owing to overcoming restrictions of time and space. Social networks which are one of the categories of social media are defined as the online communities in which their users can establish a profile for themselves, comment on each other's posts, interact and share information with others (Davis et al., 2012). It is worthy to mention that, social networks have not been first designed for educational and academic purposes. But, due to the close connection between education system and technology improvements, as well as alterations in forms of learning contexts, they have been utilized as learning devices in education (Gupta, 2014) which can assist stakeholders to access information and facilitate second/foreign language learning. As Naseri and Khodabandeh (2019) hold, social networks utilized with educational purposes help non English students overcome the limitations of customary method of teaching English, boost their motivation, and pave the way for autonomous language learning. They cost efficient form of learning which make learning process more available, attractive, flexible and encouraging for stakeholders (Douglas et al., 2008). Bouhnik and Deshen (2014) pointed out that M-learning through social networks can greatly promote the quality of education in general and second/foreign language learning in particular. In this regard, Cavus and Ibrahim (2009) illuminated that social networks have revolutionized education and altered "the conventional classroom-based learning and teaching into anytime and anywhere education" (p. 82). Ed Tech-enhanced teaching and learning through social networks can be considered as one of the products of integration of technology into educational dimension of life (Grgurovic, 2010). According to Richards (2008), Ed Tech-enhanced teaching and learning is a form of learning in which stakeholders are separated in space or time. They have the potential to provide educational environments that are more student-centered, participatory, and meaningful (AlQahtani, 2018).

Social networks are known as collaborative technologies which provide opportunities for second/foreign language learners to have interactive learning and access to online interactive contexts (Khoshnoud & Karbalaei, 2014). As Ferdig (2007) claimed, these sites are full of interactions which are of use in

language learning process. Based on the Interactionist framework, cooperative learning (CL), and learner-based meaningful interaction are emphasized in second/foreign language instructional-learning contexts (Vygotsky, 1978). Similarly, active engagement and dynamic interaction are crucial factors for language learning (Heidari et al., 2018; Lee, 2011). Social Networking-Based Education (SNBE) enables students to connect to other counterparts, make social relations and share their views with others under interdisciplinary circumstances (Gaudeul & Peroni, 2010). Researchers acknowledge that social networks have achieved a dominant role for education and entertainment as they facilitate discussion and interaction (Ghobadi & Taki, 2018). Given students' goals in Ed Tech-enhanced teaching and learning contexts are the same as students' goals in conventional ones, special attention need to be given to interactions among students with their teacher and other students in such contexts (Davies & Graff, 2005). In recent years, with regards to constant use of mobile devices among the individuals in societies in all aspect of their lives such as education, it is of great importance to not become inattentive to the critical role and importance of interaction in social networks (Beer & Burrows, 2007).

Hobbs (2005) believed that "in the last 20 years, writing [skill] has come to approach the primacy that reading has held in the language arts hierarchy" (p. 8). Therefore, regarding the difficulties and problems of second/foreign language learners in mastering writing skill and considering the necessity of meeting the *Digital Natives'* expectations with regard to emergence of new Ed Tech-enhanced teaching and learning contexts. In addition, with respect to the crucial role of having proper interaction with counterparts and teacher for a successful language learning process, in this study it was intended to evaluate and compare the impact of two different social networks namely common WhatsApp group having interaction and restricted WhatsApp group lacking interaction in M-learning context on enhancing EFL learners' writing ability with a focus on process analysis type of paragraph writing. Considering the aforementioned purpose of the study, the following research question was proposed:

RQ: What is the difference between the impact of common WhatsApp group and restricted WhatsApp group on enhancing EFL learners' writing skill?

Literature Review

The purpose of this section is to review the previous empirical studies which are related to the subject of the present study. Barker and Gossman (2013) mentioned that, mobile-mediated language education can at least allow students to have more contact with authentic context of language use. As Stockwell and Hubbard (2013) stated, "M-learning is a field that is quickly maturing, and this way, a growing body of research has appeared that highlights the various ways in which mobile devices may be used in teaching and learning of languages" (p. 2). According to Farooq et al. (2002), the concept of M-learning combines the advantages of mobility and wireless technologies in order to be

used in learning and education process by both learners and teachers. According to Wanger and Wilsonm (2005), mobile technology is growing fast and use of mobile phones, applications and social networks is going to have noticeable impacts on language learning and teaching all around the world. The utilization of social networks such as Telegram, Line, and WhatsApp has been potentially affective in area of foreign language learning as EFL learners use them to get engaged and motivated in real communicative situations (Khoshnoud & Karbalaei, 2014).

With regards to popularity and important role of M-learning and social networks in education, many research studies have been conducted and developed in order to investigate the effect and role of M-learning context and social networks in instruction as well as learning process. For instance, Belal (2014) investigated the impact of social media on students' writing skill and confirmed that social media helped the students to improve their writing and speaking as they are able to learn new words from their friends. Similarly, Robles (2016) investigated the effect of M-learning context on improving learner's writing ability and indicated that use of mobile device could increase learner's attention and motivation toward writing skill. In a recent study, Naseri and Khodabandeh (2019) compared the efficiency of input enhancement teaching techniques on enhancing EFL learners' collocation learning and their accurate use of collocation in narrative writing in two different learning contexts namely M-learning and T-learning contexts. Results were indicative of significant outperformance of learners in M-learning context in comparison to T-learning regarding collocation learning. Adloo and Aghajani (2018) conducted a research study with the purpose of seeking the effect of Telegram cooperative learning group as one of the social networks on EFL learners' writing performance and their attitudes toward using Telegram with educational purposes. The results manifested a significant difference between learners' performance in the Telegram group in comparison to learners' performance in the traditional and face to face cooperative writing group. The Telegram group also expressed positive attitudes toward using Telegram social network. In one of the other research studies with a focus on M-learning, Heidari et al., (2018) first compared two instructional methods including Face to Face Instruction (FFI) and Telegram Mobile Instruction (TMI), and second investigated the improvement of EFL learners in terms of narrative writing via TMI and traditional FFI. The researchers concluded that learners' narrative writing performance had significant improvement in the Telegram group because increased interaction was observed between the teacher and the learners and among learners themselves.

Some studies have focused on using social networks to improve EFL learners' vocabulary knowledge. For example, Jafari and Chalak (2016) examined the role of WhatsApp in improving the EFL students' vocabulary learning and agreed on the favorable impact of WhatsApp as a social network utilized in M-learning context. Ghaemi and Golshan (2017) also examined the effect of social network on learners' vocabulary learning and concluded that EFL learners could improve their vocabulary learning via social networks. In line with previous studies, Khan et al. (2016) confirmed that using social network is quite

helpful in vocabulary development of EFL learners at university level. More consistency, Mashhadi and Kaviani (2016) obtained the same results and claimed that using social networks is one of the effective ways to enhance vocabulary learning of EFL learners. Similarly, Khansarian-Dehkordi and Ameri-Golestan (2017) studied effects of one of the social networks named as the 'Line' application on EFL learners' vocabulary acquisition and concluded that the experimental group who applied mobile devices acquired target words and outperformed those of the control group who learned words through the traditional face-to-face classroom instruction. The impact of Telegram social network on learning second language vocabulary by EFL beginners was also examined by Heidari Tabrizi and Onvani (2018) who confirmed that using social networks such as Telegram can be an effective tool to motivate students to learn English. Telegram also has been proved to improve students' listening comprehension ability, as well as their collaborative skills (Salehpour, 2018). Exploring the impact of storytelling through the use of Telegram on oral language of EFL learners revealed that learners' speaking abilities can be improved through virtual environment (Khodabandeh, 2018) because social networks enable learners to talk and interact with their peers in their group (Abbasi & Behjat, 2018).

To check the improvement of students' English grammar through social networks, Singman (2012) compared the impact of Wiki with traditional language learning activities on the development of EFL learners' correct usage of grammar and revealed that social networks can enhance learners' collaborative activities and improve their language learning achievement and motivation. Nabati (2018) also investigated the effect of using Telegram on EFL learners' learning grammar and demonstrated that Telegram has a positive effect on enhancing EFL learners' grammar points. Additionally, he confirmed that social networks make foreign language acquisition more effective and fun.

Reading has also been one of the most commonly taught language skills through social networks in recent years. For instance, Shirinbakhsh and Saeidi (2018) compared reading performance of EFL learners through traditional in-class presentations as opposed to those learning via Telegram and confirmed that the participants of the Telegram group are superior over the traditional group learners. Similarly, Dukper et al. (2018) explored the effects of social media on the reading culture of students and stated social media helps students improve their social relationship with their peers and share and exchange some form of academic information with them. Likewise, Akande and Oyedapo (2018) investigated the effect of social media on reading habits of high school students and affirmed that there is a positive significant relationship between social media and reading habits of the students.

Considering the aforementioned studies, there have been many research studies focusing on investigating how social media, social networks and M-learning context can effect different aspects of second/foreign language learning including grammar, vocabulary, reading and writing skill (e.g., Adloo & Aghajani, 2018; Belal, 2014; Heidari et al., 2018; Robles, 2016). The previous

research studies have obtained valuable conclusions, while it is noticed that, these studies have only focused on comparing the effectiveness of social media, social networks and M-learning in comparison to T-learning context. It can be claimed that the shortcomings of previous studies are first, ignorance of comparison between two different types of social networks or M-learning contexts in terms of language learning in general and writing ability in particular. Second, ignorance of evaluating and comparing the role of interaction (online interaction) in different types of social networks and M-learning contexts. Therefore, in order to overcome the cited shortcomings and to fill the gaps, the present study is designed to evaluate and compare the impact of two different social networks namely common WhatsApp group having interaction and restricted WhatsApp group lacking interaction in M-learning context on enhancing EFL learners' writing ability with a focus on process analysis type of paragraph writing.

Method

The Design of the Study

Given there was no true randomization in the present study, it was a quasi-experimental study. Considering the research question of this study, the independent variables in this study were common WhatsApp group having interaction and restricted WhatsApp group lacking interaction, and the dependent variable was EFL learners' writing skill with a focus on process analysis type of paragraph writing.

Participants

A total of 134 Intermediate EFL learners varying in age from 17 to 26 were selected. The participants were EFL learners at Kish, Safir, and Goyesh language institutes in Isfahan, Iran, and were non-randomly selected from different classes of the language institutes. All of the learners were female with Farsi as their native language. In order to homogenize the participants, Oxford Placement Test (OPT) was administered. Out of the whole learners, 68 EFL learners who could successfully obtain the required score (from 35 to 46) were considered as the intermediate learners and were selected as final participants in this study. Then, the homogenized participants were randomly divided into two equal experimental groups each consisting of 34 participants. (i.e., group A: Experimental group, receiving instructional materials in common WhatsApp group; group B: Experimental group, receiving instructional materials in restricted WhatsApp group).

Instruments

A number of instruments were used in order to run the present study, which are explained below:

The OPT. The OPT was administered in order to establish the participants' homogeneity. It is the test of language proficiency presented by Oxford University Press which provides tutors with a reliable and time saving technique for determining the proficiency level of learners. This test consists of 60 items in two parts: Part one with the first 40 multiple-choice items that assess use of English and part two with 20 multiple-choice items that assess listening skills. It is worthy to mention that both parts of the OPT were given to the participants in this study

Writing Pretest and Posttest. In order to evaluate the participants' writing ability in terms of process analysis writing before and after the treatment sessions, two pieces of process analysis paragraphs were taken from the participants of both groups as writing pretest and posttest. Process analysis writing is defined as a type of writing in which the sequential steps of a procedure are explained. There are two kinds of process writing including directional and informational. As the names suggest in directional type of process analysis paragraph, the author tries to explain how to do something. And in informational process analysis paragraph, the author tries to explain how something works or happens (Hemmati & Khodabandeh (2017).

In order to guide the participants, first they were given a particular topic as the writing pretest. The topic of writing pretest was about "how to gain entry to university", and the topic of the post-test was "How to choose a major", therefore; the type of process analysis paragraph in this study was informational process paragraph. In both pretest and posttest, the participants were informed that their writing should include a topic sentence, supporting sentences and a concluding sentence. The topic of the writing pretest and posttest were chosen under the supervision of the experts in the field of writing, and the scoring procedure was done by two raters whose inter-rater reliability was also calculated, the results of which will be presented later.

Procedure

The procedure of the present study was initiated with the selection of 68 homogeneous Intermediate EFL learners out of 134 EFL learners. The homogeneity of learners was determined by administration of OPT. As stated earlier, the homogenized participants were randomly divided into two experimental groups, which were respectively common WhatsApp group and restricted WhatsApp group. The second procedure was evaluating the participants' writing ability with a focus on process analysis type of paragraph writing before the treatment administration as the writing pretest. The following procedure was administration of treatment sessions and presentation of predesigned instructional materials. The whole treatment sessions in this study were 8 sessions and lasted for four weeks. Every week, two sessions were held and each session lasted for 1 hour. The first session was used to take the writing pretest. In each of the following 6 sessions, one of the predesigned instructional posts and models were presented and taught to the participants. The last session was

used to take the writing posttest. In order to teach process analysis writing, the researcher used Model-Practice-Reflect instructional cycle. Both experimental groups in this study received the same instructional materials and models, the only difference was in the type of the M-learning context of the groups. The first experimental group received the instruction in common WhatsApp group in which the participants experienced having online interaction with their peers and teacher, and the second experimental group received the instruction in restricted WhatsApp group in which the participants had no online interaction with their peers and teacher.

The instructional material used in the present study was extracted from the third unit of the book titled as Advanced Writing, written by Hemmati and Khodabandeh (2017). In order to provide proper instructional materials and exercises for the participants in both experimental groups, the researcher took two steps. First, she made 6 separate written instructional posts. The instructional posts respectively contained the definition and short explanations of what process analysis paragraph is, detailed explanation of two kinds of process writing with related examples for each kind, explanations of different parts of process analysis paragraph which are a topic sentence, supporting sentences and a concluding sentence, examples of suitable transition words and phrases for a process paragraph, use of imperative and passive verbs in process paragraphs and finally a detailed and rich chart for a piece of process paragraph rubric. Second, she made some other written posts which were exercises related to the predesigned instructional posts. The exercises were also extracted from the ones cited in the same book.

The researcher made a common WhatsApp group as the first experimental group, and added 34 of the homogeneous participants. The participants were required to be online in common WhatsApp group at the predetermined time on Sundays and Tuesdays for receiving their instruction. Having all the participants online, the researcher who was also the teacher in both experimental groups shared the predesigned instructional posts and models with the participants. The participants were required to read the presented model carefully. In addition, participants were supposed to interact with each other and their teacher by sharing their ideas or information about the instructional material and discuss the presented model in the group. Therefore, in this group the participants experienced having online interactions with each other and their teacher, and did not experience a teacher centered context. Regarding the Model-Practice-Reflect instructional cycle, after presentation of the predesigned model the participants were supposed to practice and follow the model, write a piece of paragraph writing and share it in the common WhatsApp group. They had also the chance to pose their questions if there was any and the teacher provided complete answer to their questions in the group. As the last step the teacher asked participants in order to give feedback on each other's paragraph writings and share their ideas, the teacher also helped the participants by her feedback in the WhatsApp group. The participants also interacted with each other to share their feedback and idea bout each other's writings.

With respect to the other experimental group named as restricted WhatsApp group, the researcher made a restricted WhatsApp group and added the other 34 of the homogeneous participants. The participants in this group were also required to get online at predetermined time on Mondays and Wednesdays in order to receive their instruction. The teacher took the same steps for sharing and presenting the instructional posts and models as the common WhatsApp group. The participants were supposed to read the presented model carefully by themselves. While, in contrast to the common WhatsApp group, the participants in this group had no chance of interacting with each other and their teacher by sharing their ideas, information and questions. The restricted WhatsApp group was a completely teacher-centered virtual class lacking the participants' online interaction and participation. In order to follow the Model-Practice-Reflect instructional cycle, after presentation of predesigned model the participants in this group were also required to practice and follow the model, write a piece of paragraph writing and give it to their teacher. Since this experimental group was designed as a restricted group in which the only active member was the teacher, participants had no chance to send messages in the group, ask questions and present their writings. Therefore, the participants had to send the paper form of their writings to their teacher, while their chance of interacting and communicating with their teacher was completely restricted. They had no chance and allowance to communicate or interact with their teacher for asking questions or sharing ideas. After receiving the writing papers, the teacher wrote her feedback on the papers and gave them back to the participants, while she had no interaction with them and giving back their papers while no interaction and communication happened among neither the participants nor the teacher in a context beyond restricted WhatsApp group. As the last procedure of this study, the writing posttest was taken from all groups of the participants in order to evaluate their writing ability with a focus on process analysis type of paragraph writing after the completion of the treatment sessions.

Data Analysis

The data collected in this study were then submitted to data analysis by the use of Statistical Package for Social Sciences (SPSS) 24 software. As the nature of the present study was quantitative, the data were analyzed via the employment of a series of paired and independent samples *t*- tests and assumptions of normality. The descriptive data consisting of the mean, the standard deviations and the standard error of means were used to compare the EFL learners' writing ability before the treatment to the one after the treatment. Moreover, test normality of data using both graphical and numerical methods was run. At last, a series of paired and independent samples *t*-tests were used for inferential statistics. In order to realize how effective the treatment was, the mean scores of the posttest of the two experimental groups were compared with those of the pretest and also the mean scores on the posttest of the two groups were compared with each other.

Results

Testing Normality of Data

The normality of data was established via employment of the Shapiro-Wilk test, as it is more appropriate for small sample sizes (< 50 samples). In this test, if significance level (sig) is greater than the error value 0.05, the data normality is considered as normal. Since the significance level (sig) of the pretest and post-test scores of the groups was greater than the error value 0.05 (p> 0.05) it was claimed that the assumption of normality was retained.

Inter-rater Reliability; Pretest and Posttest of Writing

The participants' performance on the writing pretest and posttest were rated by two raters. Such being the case, Pearson correlations were run to probe their inter-rater reliability. Based on the results, it was concluded that there were significant agreements between the two raters on the pretest (r (118) = .871 representing a large effect size, p < .05) and posttest (r (118) = .837 representing a large effect size, p < .05). During rating the writings, the raters focused on the appropriateness of process writing with the specific attention given to transition words and phrases as well as the passive verbs as two main features of such writings. As a result, they only rated the proper use of these components.

Descriptive Statistics: The Writing Pretest

Table 1 displays the descriptive statistics for the two groups on the writing pretest.

Table 1.
Descriptive Statistics for the Writing Pretest

Groups	N	M	SD	SEM
WhatsApp Group	34	9.09	2.06	0.66
Restricted WhatsApp Group	34	9.50	1.98	0.43

The results indicated that the common WhatsApp group (M = 9.09, SD = 2.06) and Restricted WhatsApp group (M = 9.50, SD = 1.98) group had almost the same means on the writing pretest.

The table showed that the groups were homogenous at the pretest stage. Therefore, before administration of the treatment sessions, the groups were homogenous in terms of their writing ability with a focus on process analysis paragraph.

Table 2 displays the main results of Independent Sample t-test.

Table 2.
Results of Independent Samples t-test for the Writing Pretest

	Levene's Test for Equality of Variances		*t*-test for Equality of Means						
								95% Confidence Interval of the Difference	
Restricted Group vs. Group	F	Sig.	*t*	df	Sig. (2-tailed)	MD	SED	Lower	Upper
Equal variances assumed	4.908	0.029	1.008	66	0.42	0.623	0.626	-0.542	2.009
Equal variances not assumed			1.008	56.3	0.426	0.623	0.626	-0.548	2.015

Table 2 provides the means of the groups' pretest analyzed through the independent samples *t*-test before the treatment in terms of number of participants, means, standard deviations, standard error, lower and upper bounds. As shown in Table 2, since observed *t* (1.008) with DF = 66 is less than the critical *t* (1.96), the difference between the groups was not significant at writing pretest stage ($p < 0.05$). Thus, it can be claimed that the two groups were homogenous in terms of their writing ability with a focus on process analysis paragraph prior to the treatment sessions.

For further clarity, a sample of the writing pretest of one of the participants in each group is presented below. The correct transition words and phrases, passive verbs have been italicized, while the wrong ones have been underlined.

18- year old participant from common WhatsApp Group:

I think for going to university, we should study very well. *Also,* our self-confidence should be good. We register in Sazmane Sanjesh and choose favorite major. *Some months after this,* we go to Konkoor exam. Sanjesh will check our performance and decide which university for us. *Then* we go to that university and register our name. The first of Mehr the classes start and we go to participate in them.

Descriptive Statistics: The Writing Posttest

Table 3 displays the descriptive statistics for the two groups on the writing posttest.

Table 3.
Descriptive Statistics for the Writing Posttest

Groups	N	M	SD	SEM
WhatsApp Group	34	14.00	2.94	0.39
Restricted WhatsApp Group	34	10.88	2.64	0.38

The results indicated that the common WhatsApp group (M = 14.00, SD = 2.94) had higher mean than the Restricted WhatsApp group (M = 10.88, SD = 2.64) on the writing posttest.

Table 4 displays the main results of Independent Sample t-test.

Table 4.
Independent Samples t-test for the Posttest

	Levene's Test for Equality of Variances		*t*-test for Equality of Means						
								95% Confidence Interval of the Difference	
Restricted Group vs. Group	F	Sig.	*t*	df	Sig. (2-tailed)	MD	SED	Lower	Upper
Equal variances assumed	0.5	0.58	5.54	66	0.0	2.57	0.65	1.7	3.9
Equal variances not assumed			5.54	65.8	0.0	2.57	0.65	1.7	3.9

In order to find out whether the difference among the performances of the two experimental groups in posttest was statistically significant, another independent samples *t*-test was applied. Table 4 indicates that the observed *t* (5.544) with DF = 66 was greater than the Critical *t* (1.96). Thus, the common WhatsApp group (M = 14.00501) significantly outperformed the Restricted WhatsApp group (M = 10.88927). The mean difference between the common WhatsApp group and Restricted WhatsApp group was higher than the significance level ($p < .05$) on the writing posttest.

To sum up, based on the results shown in Table 1 and 3, the mean score of common WhatsApp group had substantial growth on the posttest in comparison with the pretest. Moreover, the mean score of Restricted WhatsApp group had an increase in the posttest in comparison with the pretest, but the growth was not statistically significant.

Although the mean score of Restricted WhatsApp group was greater than the mean score of common WhatsApp group in the pretest stage, the mean score of common WhatsApp group was significantly greater than the mean score of Restricted WhatsApp group in the posttest stage.

For further clarity, a sample of the writing posttest of one of the participants in each group is presented below. The correct transition words and phrases, passive verbs have been italicized, while the wrong ones have been underlined.

18- year old participant from common WhatsApp Group:

In order to go to choose the major, *first of all,* our knowledge *should be improved*. *In addition,* all the negative senses such as fear, anxiety, and worrying *should be removed* from us. *As the first step,* we must register our names in Sazmane Sanjesh Organization. *After that,* we must take part in Konoor exam. *What comes next* is choosing the majors based on our interest. The favorite majors *should be selected* in the Sanjesh website. *Finally*, Sanjesh will choose the best students for each university.

Discussion

Considering the research question, the results and findings of the present study indicated that the participants in the common WhatsApp group had better performance and higher mean on the writing posttest in comparison to the pretest. Therefore, common WhatsApp group by having online interaction between the participants and the teacher had significantly positive impact on enhancing the participants' writing ability in terms of process analysis paragraph. The results and findings of this study manifested that performance of the participants in the restricted WhatsApp group on the posttest was not significantly better than their performance on the pretest. Consequently, the restricted WhatsApp group by lacking online interaction between the participants and the teacher had no significant positive impact on enhancing the participants' writing ability in terms of process analysis paragraph.

The results and findings of this study were indicative of the significant difference between performance of the two experimental groups on the posttest. The results showed the significant outperformance of the common WhatsApp group on the posttest. Therefore, there was a significant difference between the impacts of the common WhatsApp group having online interaction and the restricted WhatsApp group lacking online interaction on enhancing the participants' writing ability in terms of process analysis paragraph.

It can be argued that the WhatsApp social network used in the teaching of process analysis paragraph in our context was significantly effective for the participants in the common WhatsApp group and non-significantly effective for the participants in the restricted WhatsApp group. In this regard, the significant performance of the participants in the common WhatsApp group can be explained by the online interactions and communications occurred and observed between the teacher and the participants and also among the participants themselves. The participants of the common WhatsApp group had online interaction with their teacher and other participants, shared their ideas, and presented lots of responses and feedback. In sum, the better performance of the participants in common WhatsApp group can be attributed to the close classroom atmosphere created through their online interactions which made them feel more relaxed, not considering their teacher as the sole authority and being active during the teaching-learning process. The participants' more opportunity to participate and interact with their teacher and their peers was the main reason for their improvement in their writing ability in terms of process analy-

sis paragraph. According to Lee (2011), this kind of teacher-learner interaction helps the process of learning and classroom discourse, because interaction between the teacher and learners facilitates learning for learners and makes the material easier for them to be understood. The participants' interactions in the common WhatsApp group and their willingness to communicate with each other and their teacher, reminds us of Warschauer's (2000) statement. He stated that interaction in online settings motivates students because they do not have concerns about their errors which occurs in the T-learning contexts. Regarding the present study, it can be claimed that due to the more participation, communication and interaction of the participants in the common WhatsApp group, they had the sufficient and proper opportunity in order to take part in their learning process and learn better in comparison to the participants in the restricted WhatsApp group. This is proper interaction that provides the opportunity for learners to share their ideas, thoughts, comments and feelings with their teacher and peers during the learning time (Yanfen & Yuqin, 2010). Thomas (2013) believes that since effective learning is the result of proper interaction between teachers and learners, it can be claimed to be the integral component of learning . The findings of the present study in terms of the positive impact of the participants' interaction in the common WhatsApp group as one of the types of social networks in M-learning context on learners' improvement writing ability in terms of process analysis paragraph, correlated with the findings of the studies such as Beer and Burrows, (2007); Ferdig (2007); Gaudeul and Peroni, (2010); Ghobadi and Taki, (2018); Heidari et al., (2018); Khoshnoud and Karbalaei (2014); Lee (2011).

On the contrary, the participants' performance on the writing posttest in the restricted WhatsApp group was not significantly improved in comparison to the writing pretest, as well as the performance of the common WhatsApp group on the posttest. The weak performance of the participants in the restricted WhatsApp group and their lack of improvement in writing ability in terms of process analysis paragraph can be explained due to some factors such as lack of online interaction, the teacher being the sole authority and active member in the group and the participants' passive role in their learning process.

Conclusion

The present study was conducted in order to investigate and compare the impact of two different social networks namely common WhatsApp Group having interaction and restricted WhatsApp group lacking interaction in M-learning contexts on enhancing EFL learners' writing ability in terms of process analysis. The findings of this study were quite consistent with the results of the reviewed studies. With regard to the findings and results of the present study it was concluded that the participants' writing ability in terms of process analysis paragraph was significantly enhanced in the common WhatsApp group. Regarding the comparison of the two experimental groups, the present study manifested that for enhancing the participants' writing ability in terms of process analysis,

the common WhatsApp group was significantly beneficial and efficient in comparison to the restricted WhatsApp group.

Considering the participants' participation in the learning process and their final performance, it was concluded that use of common WhatsApp as one of the types of social networks in M-learning context and Ed Tech has been so attractive and beneficial for the participants. The participants had online communication and interaction in a friendly atmosphere, experienced overcoming the restrictions of traditional learning contexts, were motivated, attracted and satisfied with their learning context. Therefore, it was concluded that having interaction in new learning contexts such as social media, social networks, M-learning context and etc. have significant positive impact on enhancing the second/foreign language learning process in general and writing skill in particular. The findings of the present study also confirmed Adloo and Aghajani's (2018) findings who confirmed that social networks such as WhatsApp are mobile applications that significantly help students in developing their writing and vocabulary word choice in their writing. Social networks allow learners to interact and discuss with other learners, give feedback and comment on the writing activities either synchronous or asynchronously. Using social networks as a medium for language learning actively encourages a cooperative environment, builds positive attitudes, increases motivation and student' participation, and sustains teacher-student relationships (Mazer et al., 2007).

The participants' participation and online interactions indicated that, the use of instructional podcasts could also contribute to making the participants become the main actors of their own learning as they are encouraged to become independent and motivated learners who are able to regulate their own learning pace and identify their weaknesses. Therefore, with regard to the particular features of M-learning context and the level of participants' participation in learning process it was concluded that M-learning contexts created by social networks such as WhatsApp can lead participants toward becoming more independent in their language learning process, and managing their own learning time, place and strategy.

As the result of comparison between the two groups of the participants after the completion of treatment and the posttest indicated, it was concluded that, since more online interaction took place in the common WhatsApp group, the participants were more engaged and active in their own learning process. The findings of the groups' comparison provided evidences in order to confirm the statements regarding the criticality of interaction in successful language learning. According to Curtis and Lawson (2001), interaction has a significant role in increasing the quality of learning, since better learning entails a collaborative activity between the teacher and students. "The most efficient way of learning is for a student to be really involved in a lesson" (Scrivener, 2014, p.59).

However, like other empirical research studies, the findings of the present study are not definitive. In other words, the findings do not suggest that virtual learning described in this study is the only best way to improve EFL learners' writing ability, but rather it represents a useful construct to be employed by

teachers as a basis for enhancing EFL learners' writing ability, as well as using the benefits of the online interaction in social networks and new learning contexts such as M-learning. One of the criterion based on which the results of a research study will be considered as valuable results, is its practicality. The results and conclusions of the present study are worthy and practical, since the findings can be useful for EFL teachers in terms of creating a learning context in which learners have interactions and communication with each other and their teacher. And, using different forms of social networks and M-learning learning contexts in developing EFL learners' writing ability in general and process analysis paragraph in particular. Considering the significant role of interaction in successful language learning process, the findings of this study can be useful for instructional material designers. The further instructional materials and exercises can be designed to require for more interactions between learners and teacher as well as learners themselves and also to weaken the dominate active role of the teacher in the class.

Regarding the limitations of the study, it is worthy to note that this study also had some limitations one of which was the participants' gender. In addition, due to some problems about filtering out some of the mobile applications, the type of mobile application used in this study was one of the other limitations. Also the present study had some delimitations namely the participants' language level, the type of paragraph writing, the instructional materials.

Due to the fact that no research study is exhaustive in itself, more research studies are necessary in order to verify, confirm, validate and expand the results of a research study. Consequently, as the first suggestion for further research, replication of the present study is mentioned. The same basic design could also be employed for EFL learners of other languages. In further research studies the impact and role of other types of Ed Techs and social networks can be investigated on improving EFL learners' writing ability. In addition, further studies can be focused on other types of paragraph writing such as narrative, cause and effect and descriptive paragraph or even other levels of language learning such as grammar or vocabulary learning. Comparing the impact of two different social networks namely common WhatsApp group and restricted WhatsApp group on improving EFL learners' writing ability in terms of process analysis paragraph was the novel aspect of this study. Therefore, the significant positive performance of common WhatsApp group in comparison to restricted WhatsApp group requires more investigation in order to find out all of the possible and logical reasons and factors behind this finding. It is hoped that this research can promote and inspire more researches on Ed Techs, M-learning contexts and EFL learners' writing skill.

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