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The effect of Virtual and Real Classroom Instruction on Inter-language Pragmatic Development: Microblogging versus Traditional Instruction of Speech Acts to Iranian EFL Learners

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Abstract

Despite the fact that virtual learning seems to have considerable potential for enhancing language learners' communicative abilities, it has received less attention for improving pragmatic competence of learners in EFL educational settings. The present study was an attempt to investigate the impact of virtual and real classroom instruction of speech acts on the pragmatic awareness and development of Iranian EFL learners. To do so, a quasi-experimental study was designed and, through a homogeneity test, 57 EFL female language learners at the intermediate level were chosen. The participants were randomly divided into the experimental groups of virtual and real classroom learning and went through the procedure of pretest, intervention, and posttest; the pertinent data were collected by means of a PET test, a speech-act pre-test and comparable post-tests of speech acts. Both measures of independent and paired-samples t-test were used to analyze the data. The findings revealed that instruction of speech acts through both virtual and real classroom techniques can be conducive to the promotion of pragmatic awareness among the EFL learners in the Iranian context; meanwhile, real classroom instruction of speech acts proved to be more fruitful and more significantly elevated the pragmatic awareness of Iranian EFL learners. We conclude the study drawing on the implications of our findings for ELT and EFL policy makers, language educators and teachers, material developers, and learners.

Keywords: Iranian EFL learners, pragmatic awareness, real classroom instruction, speech acts, virtual classroom

Introduction

Teaching and learning practices in general and L2 educational activities in particular are changing continuously due to technological advancements (Kerawalla, Luckin, Seljeflot, & Woolard, 2006). Today's younger generation can be truly considered as digital natives; consequently, the application of technology in education is easier and learning has become more motivating, meaningful, and remarkable (Singhal, Bagga, Goyal, & Saxena, 2012). Given the importance of pragmatic knowledge in second language development, employing effective methodology and techniques to improve second language learners' pragmatic competence in the target language has become of paramount significance especially in foreign language contexts (Bardovi-Harling, 1999; Jianda, 2010; Tajeddin, Alemi, & Pashmforoosh, 2018; Xu, Case, & Williams, 2017).

Although pragmatic competence is a critical ability for appropriate and successful communication, it has rarely received ample attention in the teaching of a second language (Tajeddin et al., 2018) and in the EFL classrooms (Amiri, Birjandi, & Maftoon, 2015; Xu et al., 2017). Nor has it been manifested well in the (Iranian) EFL teachers' cognition (Masrour, Babaii, & Atai, 2019). During the recent decade, though, there have been vast efforts to establish instructional practices that improve learners' pragmatic competence (Bardovi Harlig, 2018; McConachy, 2019; Molderez & Fonseca, 2018; Pishghadam & Sharafadini, 2011; Taguchi, 2015, Tajeddin, Alemi, & Razzaghi, Tajeddin & Hosseinpur, 2014; Saniei, Birjandi, Abdollahzadeh, & Nemati, 2015), and researchers have been trying to identify the most effective instructional practice for improving students' pragmatic awareness.

To fill the gap, both virtual and real classroom trainings of this notion have been suggested (Baker, 2018; Bardovi Harlig, 2018; House & Kasper, 1987; Molderez & Fonseca, 2018; Taguchi, 2015;Tajeddin et al., 2014). Although there are some international studies that have a technology-related orientation (Dillenbourg, Schneider, & Synteta, 2002; Lin & Lan, 2015; Chen, 2016; Seth, Okpatah, Richard, Coffie, & Justice, 2019; Yeh & Wan, 2019; Khosrow-Pour, 2019), the jury is still out on the supremacy of either of the methods as the previous studies' main focus has not been the

development of inter-language pragmatics per se. The situation is not much better with domestic studies dedicated to the development of inter-language pragmatic competence since they rarely have dealt with the technology versus real class divide (see the Literature Review Section below).

Pragmatic competence and Inter-language Pragmatics (ILP)

Undoubtedly communication would be ineffective in the absence of pragmatic competence (Bachman, 1990; Bachman & Palmer, 1996). Bardovi-Harlig and Dornyei (1998) also contend that mastery of pragmatic competence is essential for successful language learning. For Cohen (2009), pragmatic competence holds the key to building or interpreting discourse through connecting the meaning of utterances or sentences and texts, while for Savignon (1997) it is an integral component of a the communicative competence (of a non-native speaker).

To delineate the major components of pragmatic competence, Boudaghi (2015) draws on Elder and Harding's (2011) definition of this competence in terms of "illocutionary competence and sociolinguistics competence" as well as Bachman and Palmer's (2010) two proposed areas of pragmatic knowledge: "one functional and the other sociolinguistic". Functional knowledge known also as "illocutionary competence" helps language learners to "interpret relationships between utterances or sentences and texts and the intention of language users" (Bachman & Palmer, 2010, p. 46). Bachman and Palmer (2010, p. 47) assert that sociolinguistic knowledge "enables us to create or interpret language that is appropriate to a particular language use setting". Furthermore, they emphasized the role of sociolinguistics knowledge in forming and regulating the apt application of dialects, figures of speech, genres, cultural references, registers, and natural or idiomatic expressions.

Brown and Lee (2015), who elaborate on more recent models of communicative competence, contend that none of the models of communicative competence have adequately considered the importance of the pragmatic component. However, recent works specifically focusing on inter-language pragmatic (ILP) development have compensated this paucity. Tulodziecki and Grafe (2019) proposed inter-language pragmatics within media competence and Xiao, Taguchi, and Li (2019) have highlighted the

basic functions of proficiency sub-skills in their pragmatic competence development model.

The field known as ILP in essence seeks to describe and explain students' improvement and use of pragmatic knowledge. Moreover, as also reiterated by Martonez-Flor (2004), Kasper and Blum-Kulka's (1993) definition of ILP as "the study of non-native speakers' use and achievement of linguistic action patterns in a second language", it can be assumed that an integral concern in ILP is linguistic action, or speech acts. In fact, Kasper (2001) claimed that, most of the research done in SLA has focused on comparing learners' interlanguage speech act accomplishments with NSs' acts (e. g., Martinez-Flor, 2004). Given the focus of the current study which is on interlanguage pragmatic awareness of the language learners' pragmatic and interlanguage pragmatic are used interchangeably in the context of the study.

Teachability of Pragmatic Competence

An issue of concern for the scholars in the field has been the question of pragmatic competence teachability. A great number of research projects have been conducted to explore the effects of teaching on language learners' pragmatic improvement. Taghizadeh (2017) draws on Kasper (1997) who states that teachers should create different opportunities for learners to practice, rehearse, and improve pragmatic competence. In fact, according to Kasper (1997), "the challenge for foreign or second language teaching is whether we can arrange learning opportunities in such a way that they benefit the development of pragmatic competence in L2" (p.1) because, as Taghizadeh (2017) notes, Kasper points to the non-teachability of both linguistic and pragmatic competence inasmuch as "Competence is a type of knowledge that learners possess, develop, acquire, use or lose" (Kasper, 1997, p. 21). An accumulating body of research, however, suggests that providing the opportunity for the learners is beneficial and, accordingly, point to the role of instruction in pragmatics (e.g., Kasper, 1997; Martinez-Flor & Fukuya, 2005).

Reviewing the studies dealing with teachability of pragmatic competence, Boudaghi (2015) indicates different lines of research and their conclusions in this regard. One strand of research emphasizes the

significance of real life examples accompanied with clear explanations of how to use speech acts in efficient acquisition of pragmatic knowledge. In fact, as emphasized by Akutsu (2006, p. 135), "it is necessary for a language learner to have opportunities to be exposed to enough pragmatic strategies and situations and that in appropriate manners to acquire the competence". Billmyer, (1990), Jeon and Kaya (2006), Norris and Ortega (2002), Olshtain and Cohen (1990) and Wildner-Bassett (1994) are among the studies in the first line of research suggesting the efficacy of teaching pragmatic features.

Another strand of pragmatic instruction investigation, for instance House (2015) and Tateyama, Kasper, Mui, Tay, and Thananart (1997), delved into the likely influence of (intentional versus incidental) teaching on pragmatic inter-language development. The general consensus appears to be best described by Kasper (1997) who contends that "research supports the view that pragmatic ability can indeed be systematically developed …" (p. 9). No doubt such systematic development is attributable to and contingent on the opportunities for language learners provided in the language classes (or elsewhere); they should be exposed to rich input that can enhance their "knowledge of social, cultural, and discourse conventions that have to be followed in various situations" (Edwards & Csizér, 2004, p. 17) (see also Boudaghi, 2015; Xia et al, 2019).

Real and Virtual Education

Irrespective of the attempts to teach English through virtual world (Dillenbourg et al., 2002; Lin & Lan, 2015; Chen, 2016; Seth et al., 2019; Yeh & Wan, 2019) studies on teaching inter-language pragmatics through virtually supported methods are still rare (Lin & Lan, 2015; Shively, 2010). Shively (2010) is one of the few studies in this respect which has investigated the capacity of the virtual and real worlds in terms of developing a model of pragmatics teaching for overseas study in the Spanish context. Nonetheless, vast efforts have been made in the real educational world to establish instructional practices that improve learners' pragmatic competence (Bardovi Harlig, 2018; Derakhshan & Arabmofrad, 2018; McConachy, 2019; Molderez & Fonseca, 2018; Pishghadam & Sharafadini, 2011; Taguchi, 2015; Tajeddin et al., 2014; Tajeddin & Hosseinpur, 2014), and researchers have been trying to identify the most effective instructional practice for improving students' pragmatic awareness.

Concerning the significance of teaching inter-language pragmatics in our Iranian context, Derakhshan and Arabmofrad (2018) studied the effect of teaching speech acts of apology, request, and refusal on Iranian EFL learners' pragmatic comprehension and found such an instruction to be truly helpful. Other studies in the Iranian context have also confirmed the same perspective (Amiri & Birjandi, 2015; Birjandi & Rezaei, 2010; Nahavand Zadeh, Gorjian, & Pazhakh, 2014; Pishghadam & Sharafadini, 2011; Taghizade Mahani, 2012; Tajeddin et al., 2014, 2018; Tajedin & Hosseinpur, 2014; Tan & Farashaiyan, 2016 among others). Meanwhile, none of the aforementioned investigations in the Iranian context have compared the effects of real and virtual worlds on the development of inter-language pragmatics and pragmatic awareness among Iranian EFL learners, particularly, as far as technology-mediated education and popular applications (including Twitter) are concerned.

Twitter, as a free micro-blogging application which is quite appealing especially to the youth, has been introduced as a platform for virtual teaching (Ober, 2019; Upadhyay, 2018; Yen & Wan, 2019). Distinctive qualities of twitter, as a virtually supported application to be used in the EFL classes have been recently highlighted in the related literature (Asaoka, 2019; Lee, 2019; Ober, 2019; Seth et al., 2019; Tang & Hew, 2017; Upadhyay, 2018). Although there are multiple research reports on the effect of teaching of speech acts in the L2 classroom and learners' awareness in the English in an ESL context (e.g., Bell, 2012; Fujii, 2012; Hulstijn, 2001, 2011), hardly (if not at all) are there any (particularly domestic) comparative studies to investigate the effects of learning through Twitter on EFL learners' inter-language pragmatic competence.

This paucity in the domestic literature, in spite of the crucial importance of pragmatic competence in language learning (Yousefi & Nassaji, 2015), highlights the need to do more research on pragmatic competence, in general, and speech acts, in particular, in light of effective methodologies and techniques including technology-mediated ones. We particularly opted for the speech acts of *request* and *apology* as they are likely to pose communicative challenges to Iranian learners, there are some reliable and valid measures for their elicitations, and they are widely studied ; hence, our

findings can be juxtaposed with similar studies (Birjandi & Rezaei, 2010; Derakhshan & Arabmofrad, 2018; Jianda, 2004; Tajeddin & Hosseinpur, 2014 among others).

Despite the fact that both virtual and real learning seem to have considerable potentials for enhancing language learners' abilities in various language skills and components, they have received less attention regarding improving pragmatic competence in Iranian classrooms. Taking into account such paucity, the present study is an endeavor to investigate if employing technology-mediated instruction in teaching L2 speaking and writing would have any statistically significant effect on enhancing the inter-language pragmatic ability of Iranian EFL learners. In fact, due to the importance of pragmatic competence in general, and speech acts in particular—in addition to the effect of technology and virtual world in L2 development—the purpose of the current study is to investigate the comparative effects of real world and virtual world instruction on the development of inter-language pragmatics of Iranian EFL Learners. Following the recommendation by rather recent studies (e.g. Upadhyay, 2018), the application of Twitter—as a highly popular micro-blogging tool—which is less common as a virtual teaching platform, can set the current study apart from extant similar studies. Accordingly, the following research questions were addressed:

RQ1: Does virtual instruction of speech acts have any significant effect on the EFL learners' inter-language pragmatic development?

RQ2: Does classroom instruction of speech acts have any significant effect on the EFL learners' inter-language pragmatic development?

RQ3: Is there any significant difference between the effects of virtual and classroom instruction of speech acts on EFL learners' inter-language pragmatic development?

Method

Participants

The participants of this quasi-experimental study were 57 intermediate level female students (with the age range of 11 to 19) studying English conversation courses in Shahrekord, Iran, chosen from among 90 intermediate learners based on their performance in a sample of the

Preliminary English Test (PET). PET was first piloted with 30 similar students to check its reliability and then the test was administered to the study participants. Twenty-seven of the participants were in one experimental group and 30 in the other experimental group.

Instruments

The data for the present study was collected by means of three tests: a PET test, a pretest and two post-tests of speech acts. The characteristics of all of these instruments are presented as follows.

Preliminary English Test (PET)

To evaluate the general proficiency of the participants, the piloted PET was used. This test has four parts including reading (35 items), writing (7 items), listening (25 items), and speaking sections with equal values, each section accounting for 25% of the total score (i.e. 50). The results of the pilot study represented that the mean was 39.8 and the SD was 2.10. The test reliability based on KR-21 method was quite acceptable (0.89) (see Table 1).

Table 1
Descriptive Statistics of PET Pilot Study

N	Mean	Standard deviation	Variance	Reliability (KR-21)
30	39.8	2.10746	4.44138	0.89

Pretest of Inter-language Pragmatics

The pretest used to measure the participants' pragmatic awareness was a 24- item test of inter-language pragmatics covering *request* and *apology* speech acts. To evaluate the pragmatic knowledge of the participants, we gave Jianda's (2004) pragmatic test to our participants prior to the treatment phase. It tests *apology* and *request* speech acts through 24 items (12 items each). To ensure the validity and appropriateness of the instrument for our Iranian context, the instrument items and pertinent scenarios were reviewed

and evaluated by three applied linguists (two novice and an expert) in case any amendments were needed.

Posttest of Inter-language Pragmatics

It is worth mentioning that two sets of instruments were given to the students as the post-tests: an MDCT and the very same pretest of inter-language pragmatics. The first instrument which taps into apology and request speech acts in terms of 20 items (10 items for each speech act) is aimed at academic level pragmatic knowledge and was prepared and validated by Birjandi and Rezaei (2010). This test was selected as a safe-guard measure since it also covered comparable speech acts. In addition, it helped the researchers control for any possible practice effect that could contaminate the test results due to repeating the same pretest as the posttest (Bachman, 1990). Table 2 shows that the results of the two sets of tests are significantly correlated and the pretest could be confidently used as the post-test.

Table 2
The Pearson Correlation between Pretest Repeated and Posttest

		Posttest
Pretest used as Posttest	Pearson Correlation	.659**
	Sig. (2-tailed)	.000
	N	57

**. Correlation is significant at the 0.01 level (2-tailed).

Procedure

Following the PET results and random assignment of the intermediate students to the virtual and real classes, we administered the speech acts pretest. Afterwards, twenty sessions of 30 minutes were allocated to the experiment in the real classroom instruction experimental group. However, the virtual group enjoyed the twitter-based classroom a while after their regular classes in the institute. The same teacher taught both groups. The extra material used for the purpose of the experiment was the book entitled *Communicating in English, Examples and Models: 1 (Functions)*

(Matreyek, 1990) which includes various functions, situations, and practices. For each session, one unit of the book, covering two pages, were taught to the learners. However, the students in the experimental group I (virtual learning group) were exposed to the extra materials through Twitter application and actively worked on this application after their class time.

Virtual Instruction Group

The teacher (one of the co-authors) divided the students in the virtual instruction group to different sub-groups for more cooperation. Then, the researcher trained the students to work with Twitter in the first session through Telegram application. The students were allowed to send videos to other members about their areas of interests, related to the specific function taught in that particular session and discuss them in English. The teacher also encouraged all of them to actively participate in the discussions. Their classmates read these posts and tweeted back. In this way, the students shared ideas and cooperated with each other.

The students were also asked to present reports in the classroom concerning their improvement via using Twitter and their own activities and to hold chats and conversations with each other in this experimental group. Furthermore, in the Experimental Group 1 (Virtual Learning Group) learners were provided with tasks during the instruction course in which the intended speech acts were embedded. The teacher indirectly guided the students to focus on the intended acts. The learners were also provided with no direct explanations regarding different types of speech acts.

Real Classroom Instruction Group

The learners of the Experimental Group 2 (Real World Learning Group) focused on what the course book presented, memorized conversations, delivered lectures, and took part in the classroom discussions.

Also, the students in the real world learning group were provided with instructions on speech acts in the classroom setting. To this end, the teacher drew on Searle and Austin's speech acts included in various tasks of the above-mentioned book entitled *Communicating in English, Examples and Models: 1 (Functions)* (Matreyek, 1990); meanwhile, the teacher provided them with explanations on every specific function, its relation with social context, and then asked the students to deliver lectures about each function

and speech act separately. The differences between Persian and English speech acts in such situations were also discussed in the classroom. Although the main speech acts checked at the end of the treatment were apology and request, the teacher provided the learners with various speech acts and functions to minimize the effect of teaching towards the test.

Posttest Phase

After eight weeks of instruction, the participants in both experimental groups received the post-tests of apology and request elaborated on above. The data gathered were fed to SPSS version 25 and the results of the statistical procedures are reported below.

Results

Testing Normality Assumption

The statistical analyses of paired-samples and independent t-test were run to investigate the the research questions. These two analyses have a common assumption, that is, the normality distribution of the data. As displayed in Table 4, the normality of the data was confirmed.

Table 4

Testing Normality Assumptions

Group		N	Skewness			Kurtosis		
		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Real	PET	30	.056	.427	0.13	-.774	.833	-0.93
	Pretest	30	.326	.427	0.76	-.179	.833	-0.21
	Posttest	30	-.351	.427	-0.82	-.577	.833	-0.69
Virtual	PET	27	-.382	.448	-0.85	-1.041	.872	-1.19
	Pretest	27	.388	.448	0.87	-.389	.872	-0.45
	Posttest	27	.236	.448	0.53	-.954	.872	-1.09

PET General Language Proficiency Test

In order to compare the virtual and real groups' English language proficiency before the intervention, an independent t-test was run. Table 5

illustrates that means on the PET test for the real (M = 30.90, SD = 11.06) and the virtual (M = 29.48, SD = 10.71) are very close and comparable.

Table 5
PET by Groups of Participants

	Group	N	Mean	Std. Deviation	Std. Error Mean
PET	Real	30	30.90	11.065	2.020
	Virtual	27	29.48	10.714	2.062

The results of the independent t-test, t (55) = .49, p = .626, p≥ 0.05, r = .066, representing a weak effect size (Table 6), confirmed that there was not any significant difference between the two groups' mean scores and the two groups were not significantly different in terms of language ability before the treatment.

Table 6
Independent Samples Test, for the PET pretest

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.000	.990	.491	55	.626	1.419	2.892	-4.377	7.214
Equal variances not assumed			.491	54.691	.625	1.419	2.887	-4.367	7.204

Pretest of Inter-language Pragmatics

In order to compare the virtual and real groups' inter-language pragmatics before the intervention, an independent t-test was conducted. The results in Table 7 displays that the real (M = 11.13, SD = 5.22) and

virtual (M = 10.74, SD = 4.85) groups were not significantly different in terms of inter-language pragmatics knowledge before the treatment.

Table 7

Descriptive Statistics; Pretest of Inter-language Pragmatics by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest	real	30	11.13	5.224	.954
	virtual	27	10.74	4.856	.935

The two groups possessed almost equal inter-language pragmatics awareness and did not show any significant difference as indicated by the independent t-test results , t (55) = .29, p = .771≥ 0.05, r = .039, suggesting a weak effect size (Table 8).

Table 8

Independent Samples Test, Pretest of Inter-language Pragmatics by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.061	.806	.293	55	.771	.393	1.341	-2.294	3.079
Equal variances not assumed			.294	54.935	.770	.393	1.335	-2.284	3.069

RQ1: The Effect of Virtual Instruction

To compare the virtual group's means on the pretest and posttest of inter-language pragmatic awareness, a paired-samples t-test was run. Table 9

reveals that the virtual group's mean on the posttest (M = 13.96, SD = 4.73) was higher than its pretest mean (M = 10.74, SD = 4.85).

Table 9
Descriptive Statistics; Pretest and Posttest of Inter-language Pragmatics (Virtual Group)

Group		Mean	N	Std. Deviation	Std. Error Mean
virtual	Posttest	13.96	27	4.735	.911
	Pretest	10.74	27	4.856	.935

The results of the paired-samples t-test, t (26) = 2.39, p = .024, p≤0.05, r = .420, representing a moderate to large effect size (Table 10), also confirmed that the difference in inter-language pragmatics awareness was statistically significant.

Table 10
Paired-Samples Test, Pretest and Posttest of Inter-language Pragmatics (Virtual Group)

Paired Differences					T	df	Sig. (2-tailed)
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
3.222	6.985	1.344	.459	5.986	2.397	26	.024

RQ2: The Effect of Real Classroom Instruction

To compare the real group's means on the pretest and posttest of inter-language pragmatic awareness, a paired-samples t-test was run. Table 11 shows that the real group's mean on the posttest (M = 18.10, SD = 4.03) was higher than its pretest mean (M = 11.13, SD = 5.22).

Table 11
Descriptive Statistics; Pretest and Posttest of Inter-language Pragmatics (Real Group)

Group		Mean	N	Std. Deviation	Std. Error Mean
real	Posttest	18.10	30	4.037	.737
	Pretest	11.13	30	5.224	.954

The results of the paired-samples t-test, t (26) = 2.39, p = .024, p≤0.05, r = .420, suggesting a large effect size, also confirmed that the difference in inter-language pragmatics awareness was statistically significant.

RQ3: Virtual or Real Instruction?

To compare the virtual and real group's means on the posttest of inter-language pragmatic awareness, an independent t-test was run. Table 12 indicates that the mean of real class on the posttest (M = 18.10, SD = 4.03) was higher than the mean of the virtual class (M = 13.96, SD = 4.736).

Table 12
Descriptive Statistics; Posttest of Inter-language Pragmatics by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Posttest	Real	30	18.10	4.037	.737
	Virtual	27	13.96	4.735	.911

The results of the independent t-test, t (55) = 3.55, p = .001, p≤0.05, r = .43, pointing to a moderate to large effect size (Table 13), also confirmed that the difference between the two groups in inter-language pragmatics awareness was statistically significant.

Table 13
Independent Samples Test, Posttest of Inter-language Pragmatics by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df.	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.143	.290	3.560	55	.001	4.137	1.162	1.808	6.466
Equal variances not assumed			3.530	51.418	.001	4.137	1.172	1.784	6.490

Discussion

Inspired by inadequacy of studies dealing with technology-mediated virtual instruction of pragmatics, we set out to comparatively examine the effect of presenting select speech acts (namely, *request* and *apology*) via Twitter versus real classroom instruction on the students' development of interlanguage pragmatics in the context of Iran. The findings of the study revealed that both virtual and real classroom instruction of speech acts had a significant effect on the development of EFL learners' inter-language pragmatic awareness. Additionally, it was revealed that there was a significant difference between the effect of virtual and real classroom instruction; in particular, the students in the real classroom instruction group outperformed the ones in the virtual instruction group.

In line with the findings of the first research question, there are some researchers who suggest that virtual learning is helpful for the ESL /EFL learners in the process of second language development. Nation (1990), for instance, stated that in virtual vocabulary learning, learners' attention is on the content of message that is conveyed rather than on memorizing vocabulary items. Furthermore, he stated that remarkable vocabulary learning can occur when the amount of unknown vocabulary is low.

Another study is Robinson (2005, cited in Takimoto, 2013) who surveyed the effectiveness of virtual natural learning *Samoan* as a foreign language. The participants were Japanese undergraduate students.

The first finding of the study which stresses the success of the virtual world instruction of pragmatics in the L2 development can also take support from Chen's (2016) study which investigated task-based instruction and 3D multi-user virtual learning of the EFL learners in China in a 10-session period. This study implicated that "3D multimodal resources in SL provide EFL learners with visual and linguistic support and facilitate language teaching and learning" additionally, the "tasks that draw upon SL features, accommodate learners' cultural/world knowledge, and simulate real-life scenarios, can optimize learners' virtual learning experiences" (Chen, 2016, p. 152).

Conversely, there are other research results which advocate the real classroom instruction and learning of second language vocabulary, grammar, and even pragmatic components. Schmidt (1993, cited in Suvanto, 2013, p. 24) argued that while "virtual learning is possible and happens to a certain level, directing students' attention to relevant features in the input is highly facilitative in gaining pragmatic competence". Besides, Suvanto (2013, p. 25) argues "in favor of awareness raising techniques in teaching pragmatic competence" stressing that "it is very unlikely that learners incidentally and implicitly learn target language features" (see also Tajeddin & Hosseinpour, 2014 for some suggested techniques). Moreover, Schmidt believed that without noticing, it is almost impossible that input becomes intake and he defined intake as "that part of the input that the learners notice"(Schmidt, 2010, p.721). He also stated that all aspects of language including pragmatics, syntax, semantic, and lexicon should be noticed; hence, Suvanto's (2015, p. 25) conclusion that "there is evidence that a relationship exists between what learners notice and understand about target language pragmatics and what they learn". Kasper (2001) also confirms that real classroom instruction supported by the immediate social context can positively affect L2 pragmatic competence.

Schmidt (2010) explained that both virtual and real classroom learning could promote verbal awareness of the learners. Hulstijin's (2011) study showed that classroom instruction as a deliberate attempt to memorize new

words or expressions facilitated the acquisition of words or expressions without intention to commit the elements to memory. Theoretically speaking, Ellis (2008) argued that face to face classroom learning involves a deliberate attempt to learn, which may or may not involve awareness while virtual learning is more likely to be learning without intention, which may involve ad hoc attention to some other features of the L2 such as good commands of expressions, slangs, and jargons. This shows that both of these learning types could be effective in teaching speech acts to the EFL learners in an attempt to increase their pragmatic awareness.

The present study, nevertheless, found that real classroom learning which enjoyed classified instruction of speech acts accompanied with teacher explanation in the real classroom setting was more successful than the virtual learning; in fact, the latter heavily relies on the incidental norms of learning and is more in line with the qualities associated with the Internet world and the training situations supported by the net in which the main focus is on the content rather than the language, grammatical structures, and formality of speech. This finding is also in line with the findings of Nation (2001, cited in Alipour et al., 2015) who found that intentional learning is "more conscious" (p. 341) than incidental learning. This does not imply that virtual learning is unconscious. In fact, virtual learning is conscious especially when learners try to guess meaning from a particular context, such as when reading newspaper or listening to the radio, or watching movies in the social media or via the net. Nation (2001) concludes that the "distinction is not so easy to observe particularly if we consider the fact that all learning involves some conscious attention" (as cited in Alipour et al., 2015, p. 233).

There is a noteworthy body of recent research, though, confirming that real classroom interactions and learning of some target language concepts, such as pragmatics and cultural issues of the target language, are more successful than their virtual learning. Gironzetti and Koike (2016) compared two types of instruction, virtual and real, in promoting learning techniques aiming at bridging the gap in Spanish instructional pragmatics and found that real classroom instruction was more successful. Likewise, Ober (2019) who investigated the Twitter's effect as an adjunct means of studying

diagnostic imaging found that, irrespective of learners' interest in using Twitter, its educational application did not positively affect the results of diagnostic imaging examination. This shows that attraction of virtual training does not necessarily guarantee its success. As Ober suggested, probably combining real classroom education with some sort of technology to facilitate access to the required information or utilizing other media platforms (rather than Twitter) could be conducive to more fruitful results. Actually, it might be argued that the restrictions imposed on the learner while using Twitter—such as a word quota—could negatively influence its desirability and adequacy for practicing and mastering the extended discourse resembling real-life interactions.

The findings of the present study, however, are contested by some recent technology-oriented investigations. Takimoto (2013), for example, showed that among Japanese learners, virtual and real classroom instructions of pragmatics, specifically request hedges, did not differ much. Takimoto investigated two types of intention-oriented and input-based approaches, which represented real classroom and virtual instruction, and their effects on English request hedges as recognized and produced by the learners. The results revealed that while the real and virtual groups who received instruction were not significantly different from each other, they both outperformed the control group on an acceptability judgment test. Contrary to our findings, Yeh and Wan (2019) who studied the use of virtual worlds in foreign language teaching and learning noted the boosting influence of social context and task-based learning on the learners' participation and motivations. They particularly highlighted the engaging and motivating impact of consistent application of interactional strategies. In the above cited researchers' view virtual learning "offers a motivating, engaging, and multi-dynamic environment for language learners" (Yeh & Wan, 2019, p. 1949).

One point worth mentioning in terms of the lack of success of the virtual learning group compared to the real classroom language group is the likely influence of cultural factors as well as the mode of instruction affecting the learners' performance (Yuan, 2018). Iranian students are more accustomed to the formal training classes in which teacher-fronted model of classroom management is encouraged (Saeedi, 2018). Hence, the virtual class in which

small group collaboration and autonomous, incidental learning were encouraged is not taken as seriously as the formal real class is considered and this in its own turn might have affected the learners' performance. Moreover, politeness issues can also be drawn on with reference to the perceptions of the learners about the requirements of virtual mode of instruction (Economidou-Kogetsidis, 2015). For many learners, real world requires more tact than virtual education and the fact that Iranian learners have not chiefly used the Internet and virtual world for (serious, formal) educational purposes, might have contradicted their assumption of employing Twitter for purposes other than entertainment. In this respect, the findings of the present study are in line with Chen's (2016) study investigating face-threatening acts and the conflict between a teacher and students in EFL Classroom which highlighted the significance of face-to-face training and formal classroom context.

The difference between the findings of the present study and the studies mentioned above might be partially attributed to the differing educational systems prevalent in the counties such as America, Japan, and South Korea, on one hand, and that of Iran, on the other hand. In fact, it seems that students in the aforementioned counties are more accustomed to using virtual and technology-oriented education. Hence, technology has become an integral and indispensable part of their learning, while in the Iranian context (at least in the pre-COVID 19 era, when the study was conducted) educational systems have yet a longer route to take in order to benefit technology in the mainstream teaching / learning environment and not just use it for entertainment or just as a peripheral supplementary resource.

The findings conclude that speech acts instruction through both real and virtual techniques is conducive to the promotion of pragmatic awareness among the EFL learners in the Iranian context; meanwhile, real classroom instruction of speech acts is more fruitful in this regard and can better increase the pragmatic awareness of Iranian EFL learners. The findings are in line with the research previously conducted in the domain of real classroom and virtual instruction of second language components (Alipour, et al., 2015; Chen, 2016; Chun, Kern, & Smith, 2016; Gironzetti & Koike,

2016; Hulstijin, 2011; Kasper, 2001; Schmidt, 2010; Seth et al., 2019; Suvanto, 2013;Takimoto, 2013).

Based on the results of the present paper, some implications for teaching and learning of speech acts through employing virtual and real oriented tasks can be suggested. The positive impact of real instruction in the ESL/EFL classrooms can be facilitative for learners who are eager to improve their second language skills and pragmatic awareness in a cooperative mode (Seth et al., 2019; Tajeddin & Hosseinpur, 2014). Likewise, introducing tasks intended to assist the retention of pragmatic issues through recognizing the situations and contexts and identification of cultural points has been found effective (Taguchi, 2015). Real classroom instruction of speech acts in particular could be geared towards more awareness raising tasks and activities assuming that real instruction tasks can facilitate learning (Takimoto, 2013).

Moreover, English teachers and learners could employ both virtual and real classroom instruction of speech acts and their related tasks in their classes to facilitate learning. Actually, being one of the extant comparative technology-inspired studies of interlanguage pragmatic development in the context of Iran, our study could have offered even more generalizable conclusions if we could have included both genders, more participants, and/or other proficiency levels while (both qualitatively and quantitatively) comparing more nuanced teaching methodologies and the students' preferences across both virtual and actual classrooms.

All in all, notwithstanding these untapped possibilities, studies of this nature can have clear implications for all the stake-holders in the enterprise of language education including policy makers, school and institute managers, applied linguists and teacher educators, language teachers, materials developers and evaluators, and language learners. For one thing, the policy and decision makers might want to both consider the success rate of each approach in case they have to allocate their limited resources; Moreover, they might need to reevaluate their strategies to rectify the problems and enhance the status of technology-mediated education given its inevitable necessity in today's world particularly in light of the emerging challenges (such as COVID 19 pandemic) which mandate a recourse to virtual teaching and learning. Materials developers, also, could employ the

findings of similar studies to devise and present tasks in which learners' awareness toward learning as well as cultural norms of the real language in use is enhanced, while the materials can easily lend themselves to real and virtual instruction, to classroom teaching and autonomous learning, and to adaptation and manipulation by novice and expert language practitioners.

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