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The Effects of Mobile-mediated Explicit and Implicit Feedback on EFL Learners' Use of English Prepositions

Abstract

Making mistakes is a natural part of learning process requiring correction; accordingly, corrective feedback is indispensable. On this ground, the present study compared the effects of mobile-mediated explicit and implicit corrective feedback on Iranian EFL learners' use of English prepositions of manner and movement. To this end, the participants including 60 learners were randomly assigned to three groups of 20 individuals on WhatsApp application. These three groups included two experimental and one control groups. The treatment groups sat for a pre-test, received instruction on the errors under study, and practiced correcting them in response to the corrective feedback condition. Next, participants took immediate post-test and delayed post-test. The statistical analysis revealed that although the control group was more proficient than its experimental counterparts on the pre-test, their performance did not improve on immediate and delayed post-tests. However, both of the experimental groups significantly improved on immediate post-test and retained their gains on the delayed post-test. The pedagogical implication is provided for both teachers and learners.

Keywords: mobile-mediated corrective feedback, explicit corrective feedback, implicit corrective feedback, prepositions

Mobile-assisted language learning (MALL) has drastically drawn both theoretical and empirical attention over the past few decades. This spread is testified around the globe as a result of progress in the amalgamation of technologies into educational curricula and syllabi. Integration of technologies into educational contexts has brought about changes in classrooms; the digital transformation and usage in the classrooms is one example. According to O'Bannon and Thomas (2014), the principle of "Bring Your Own Device" has been promoted by the popularity of mobile phones in classrooms. It is worth noting that some scholars have found that MALL has positive effects on learning processes (Kim et al., 2013). Furthermore, some scholars have argued for/against the efficiency of MALL (Baleghizadeh & Oladrostam, 2011; Darani & Golestan, 2017; Lu, 2008; Stockwell, 2011; Zhang et al., 2011).

Written corrective feedback (WCF) is considered an essential component of EFL/ESL writing classrooms all across the world and it is even assumed to be an indispensable part of writing classes by most L2 writing teachers and SLA researchers alike. Besides, according to Rassaei (2019), although the importance of corrective feedback (CF) for L2 development is well documented in SLA research as evidenced by several of meta-analyses (Li, 2010; Miller, 2003; Yousefi & Nassaji, 2019), the affordances that technology-based L2 instruction and in particular MALL create concerning CF are not well understood. More specifically, as mobile technology provides ubiquitous opportunities for language learning, the effectiveness of teachers' CF provided during mobile-mediated audio and video communication is less understood and merits further attention.

Even though Truscott (1996) argued in his article against the effectiveness of WCF, in a series of debates and dialogues, many articles attempted to argue for the effectiveness of WCF (e.g., Bitchener & Knoch, 2008a; Bitchener & Knoch, 2009a, b; Bitchener, Young & Cameron, 2005; Chandler, 2003; Ellis et al., 2008; Ferris, 2002; Sheen, 2007), claiming that WCF indeed assists EFL learners to promote grammatical accuracy. CF can be explicit or implicit (Zhao & Ellis, 2020, p. 2). Implicit corrective feedback (ICF) does not lead to realizing correction by learners. On the contrary, explicit corrective feedback (ECF) leads to realizing so. According to Zhao and Ellis (2020) cognitive theories differ in terms of their support for ECF and ICF. The vivid rationale that cognitive theory presents is Long's (1996) Interaction Theory. Long argues that the negotiation of meaning occurs while communication provides opportunity to fill the void of learners' interlanguage once problems arise through pushing them to modify their utterance. On the flip side, Noticing Hypothesis (Schmidt, 2001) claims that learners learn once they consciously pay heed to the input; as such, ECF is more effective because it boosts the probability of noticing and correction. Although most researchers are unanimous regarding the efficiency of CF on language acquisition (Nassaji, 2015), there are differences in the value that these theories

lay on ECF and ICF and the kind of learning that yields. Hence, as Karim and Endley (2019) argued, it seems that researchers have obtained mixed results in their findings and it is still not obviously clear-cut which type of WCF is more beneficial and efficient in improving EFL learners' grammatical accuracy. Moreover, according to Liu and Brown (2015), methodological limitations of 'one-session-long treatment' need to be taken into consideration because such short-term treatments question pedagogical validity. Similarly, with respect to this problem, Storch (2010) also asserts that "learning requires extensive and sustained meaningful exposure and practice" (p. 42). Additionally, regarding the length of the studies, Bitchener and Storch (2016) also noted that in order to find answers to questions such as why learners fail to benefit from WCF and more importantly why they cannot promote their accuracy over time, further studies containing more longitudinal investigations will be needed.

It is worth noting that prepositions of time and place were largely subject of the previous volumes on WCF (e.g., Beşkardeşler & Kocaman, 2019; Jusa & Kuang, 2016; Karim & Endley, 2019) and the other such prepositions as movement and manner through mobile-assisted CF have not been undertaken to the best of the authors' knowledge. Therefore, this quasi-experimental study was designed to address the aforementioned limitations of previous studies by involving multiple feedback sessions on multiple pieces of writing by scrutinizing the effects of ECF (by providing the correct form above the underlined error), and ICF (by simply underlying the observed error). Next, it examined which of these two types of WCF promoted long-term retention of the target structures and also their learning effects on subsequent writings over time.

Literature Review

Mobile-assisted Language Learning

MALL has become an attractive area of inquiry from the outset of the 21st century. The common employment of mobiles in educational contexts is upheld by such movements as "Bring Your Own Device," a large supply of mobiles among learners, and the prevalent satisfactoriness of mobile in filling the void between social and educational functioning of persons (O'Bannon & Thomas, 2014). Mobile learning is an evolutionary movement in technology in its expansive conceptualization providing opportunities, experiences, and emphasizing on supplying mobiles (McQuiggan et al., 2015). MALL is defined by using various technologies such as mobile phones, tablets, and similar computerized advancements (Hsu, 2016). Moreover, teachers do not deliver CF individually in

the classroom setting because of time constraints; the whole class is addressed to when providing CF (Li, 2010). Sheen (2008) found that learners were unable to process teacher feedback in classroom settings, which undermines the effectiveness of CF because learners nowadays are more engaged in mobile phones; as such, their learning processes occur on mobile applications. This might be eventuated in emaciation of classroom CF and the learners' proclivity to receive CF via mobile. Mobile devices provide convenience due to transformation without time and space constraints. Additionally, learners can flexibly communicate with each other with the arrival of new apps which provide them with opportunities to establish communication via voice, text, and video chats. Actually, these are the personal perspectives turning this technology striking in educational sites and allowing the users to transform language education. Hence, the benefits of mobile use are widely known in various aspects of language education involving learners' perceptions (e.g., Hsu, 2013; Kohnke, 2020), assessment purposes (e.g., Garcia Laborda et al., 2014; Tarighat & Khodabakhsh, 2016), learning strategies (Qian, Owen, & Bax, 2018), and feedback (Ko, 2019). Furthermore, some recent studies have addressed the effectiveness of MALL in language education (e.g., Braine, 2001; Ebrahimipour, 2016; Ghorbani & Ebadi, 2020; Xodabandeh, 2017; Xu & Peng, 2017). However, these studies have not addressed CF in the form of MALL.

Written Corrective Feedback

Although the effect of CF on L1 is not dubious, researchers have concerted its effectiveness in foreign/second language betterment (Nassaji, 2008). In this vein, a substantial body of studies confirmed the effectiveness of CF on inter-language development (Han, 2002; Ishoda, 2004; Iwashita, 2003; Leeman, 2003; Li, 2010; Lyster, Saito, & Sato, 2013; Mackey & Goo, 2007; McDonough & Mackey, 2006). According to Nelson and Schunn (2009), CF has two features; cognitive and affective. Nelson and Schunn (2009) stated that although cognitive and affective feedback were amalgamated, most studies have worked on the cognitive aspect, which is called cognitive feedback. Cognitive feedback comprises an evaluative perspective (verification, identification of problem, and statement of summary), an informative perspective (the source or site of the problem, explanation, hint, solution), and a metacognitive perspective (utilizing strategies, progress toward a desired goal) (Nelson & Schunn, 2009; Shute, 2008). Nelson and Schunn (2009) added that performance and understanding are intensely influenced via cognitive feedback. Corrective feedback is necessarily an instructional strategy contributing language learners to improve their written channels (Ferris, 2010). Corrective feedback, according to Nassaji (2018, p. 3), "refers to utterances that indicate to the learner implicitly or more explic-

itly that his or her output has an error in some way. Thus, it is a kind of negative evidence.” Vigil and Oller (1976) classified CF into cognitive and affective. Ellis (2009) identified seven types of WCF such as direct, indirect, metalinguistic, focused and unfocused, electronic, and reformulation. One crucial issue which has drawn L2 researchers’ attention over the last three decades is WCF and according to Ellis (1991), CF is regarded as a cardinal educational instrument in communicative approaches. Hence, the objective of providing learners with CF is to help them correct their mistakes and boost their accuracy as well as fluency. Researchers attempted to establish the efficiency of WCF in different aspects of foreign language learning. Schmidt (2001) proposed a noticing hypothesis as an indispensable model to include the efficiency of CF in oral and written language production. He further underscored the importance of noticing different linguistic forms in the process of learning. Gass and Lewis (2007) maintain that learners notice the gap between correct and incorrect form upon CF provision. Positive and negative evidence provision through various forms is imputed to CF efficacy (Swain & Suzuki, 2008).

The majority of studies on WCF examined assessing learner revisions through feedback and provided accounts that its impact on learners’ grammatical accuracy in terms of original errors was both significant and positive (Ashwell, 2000; Ferris, 2006; Ferris & Roberts, 2001; Truscott & Hsu, 2008). Albeit positive effects of feedback on revisions have been indicated, these studies have been critiqued because learners’ ability is not assured through succeeding in revisions on initial drafts as it does not betoken accurate production of target structures in new writings (Truscott, 1996). Hence, some studies have investigated the effects of text revision to enunciate if learning can occur through WCF (Bitchener, 2008; Bitchener & Knoch, 2009a, 2009b, 2010; Ellis et al., 2008; Farrokhi & Sattarpour, 2012; Frear & Chiu, 2015; Stenfanou & Revesz, 2015).

For example, although Sheen (2007) found that direct feedback and metalinguistic feedback did not significantly differ in the immediate post-test, metalinguistic feedback was favorable to direct feedback in the delayed post-test. Bitchener (2008) assessed the acquisition of English articles by immediate and delayed post-tests through different WCF. The results revealed that performance on delayed post-test by direct corrective feedback (DCF) plus written and oral metalinguistic explanation group and the DCF only group were better than control group’s performance. Van Beuningen, de Jong, and Kuiken (2012) scrutinized 268 learners of high and low language proficiency in Dutch as L2 on revision and new writing tasks through direct and indirect unfocused WCF. These learners were divided into four groups exposing to DCF, indirect corrective feedback (ICF), self-correction, and practice. They have then been administered pre-test, post-test, and delayed post-test. The study indicated that

linguistic accuracy during revision and new writing improved through WCF on the delayed post-test.

The concentration of the majority of research scrutiny has moved from which sorts of corrective feedback are efficacious to probing what elements intercede their impact on their L2 learning because of the variability in research results. The most cardinal parameter which is in the limelight of the current study is the type of feedback focusing on prepositions of movement and manner as target structures.

The Effect of WCF on Prepositions

The effectiveness of WCF is mediated by some elements albeit its effects are demonstrated to be positive. For example, Bitchener, Young, and Cameron (2005) investigated the impact of DCF on prepositions, simple past tense, and definite articles among fifty-three learners who were assigned to DCF plus oral conference group, DCF only group, and the control group who were asked to write four compositions. The results revealed that the first group outperformed the last two ones on the simple past tense and definite article but there were no significant differences in prepositions.

In another study, Al Ajmi (2014) studied the impact of WCF provision on ten uses of English prepositions among Arab learners. The two groups whom the researcher randomly assigned were divided into experimental and control groups. They were administered pre-test, post-test, and delayed post-test and the last two tests showed the outperformance of the experimental group via running statistical analysis. The questionnaire analysis also indicated the profits of WCF. In a similar study, Beşkardeşler and Kocaman (2019) probed into studying the impact of WCF on the accuracy of prepositions of place and time among EFL students in L2 writing via administering pre-test, post-test, and delayed post-test to compare the effects of direct (un)focused WCF. The direct correction was dedicated to the focused WCF group which aimed at treating target structure only, while the unfocused WCF group was directly corrected on all of their errors plus the target structure errors. The intervention group outperformed the control one on the post-test and delayed post-test plus no significant difference was found between the two experimental groups in the short and long term which led to concluding the usefulness of (un)focused WCF. In order to discover if the efficaciousness of WCF differs on a specific number of prepositions, the present study focuses on different prepositions (i.e., prepositions of movement and manner). Albeit the above studies have demonstrated to be efficient on some specific type of prepositions, no study has been undertaken to assess preposition of movement and manner through WCF to the best of the researchers' knowledge.

The following questions guided this study:

1. Does mobile-mediated explicit corrective feedback influence Iranian EFL learners' use of prepositions?
2. Does mobile-mediated implicit corrective feedback influence Iranian EFL learners' use of prepositions?

Methodology

Participants

The participants were selected through a non-random convenience sampling method. Ninety participants constituted the original pool but 60 ones were sifted on the basis of Oxford Placement Test (OPT). The proficiency level of the participants of the current study was ascertained via administering OPT. Hence, 60 pre-intermediate Iranian students aged 17–20, studying English as a foreign language at a Language Institute were recruited as participants in this study. They were randomly assigned to three different chat rooms on WhatsApp application to receive explicit corrective feedback, implicit corrective feedback, and no CF provision.

Instruments

Oxford Placement Test

To check the homogeneity of the participants, OPT was utilized. It is a flexible test of English language proficiency developed by Oxford University Press and Cambridge ESOL that gives teachers a reliable and time-saving tool to learn about student's level of English (Hill & Taylor, 2004). It is easy to administer and ideal for placement testing and examination screening. The test has two parallel versions and takes approximately 30 minutes to administer.

All the questions of the test are in multiple-choice format; answers are recorded directly on the answer sheet, and the answer sheets can be quickly marked using the overlays provided. The test assesses the knowledge of English structure, and is considered as a global measure of ability in a language or other content areas. The test has high reliability ($\alpha = .91$) based on Cronbach's alpha (Berthold, 2011, p. 674) and high construct validity (Motallebzadeh & Nematizadeh, 2011; Wistner, Sakai, & Abe, 2009).

Writing Task

In the current study, picture prompts were employed to elicit the target structures. The participants were requested to describe the picture prompts representing a scene and to revise the descriptions over two weeks. They were asked to write a minimum of 20 sentences for each writing task in 30 minutes. Besides, a sample sentence was given to them as a model. On Day 2, having received the CF on their writings, participants revised the descriptions. The same procedure was continued in Week 2. Each student was asked to produce two new sentences in Weeks 3 and 4 in order to investigate the delayed effects of CF on their writing practices.

Accuracy Measure (Scoring Procedure)

Grammatical accuracy was the scoring target of every text. The texts were measured on a quantitative variable as conducted in the previous studies on the effectiveness of WCF (e.g., Bitchener et al., 2005). The percentage of incorrect use for each specific preposition was defined as a criterion of accuracy calculation. For instance, an error rate of 30% would indicate six inaccurate uses of a specific preposition from ten obligatory occasions. The intra-rater and inter-rater reliability level of the marks were also identified. In order to ascertain the intra-rater reliability, 50% of the texts were double marked by one of the researchers of the current study two months after the first marks were given and all the data were analyzed. Pearson correlation coefficients for the scores at two times for the four writing tasks were: 0.95 (Writing 1), 0.94 (Writing 2), 0.96 (Writing 3), and 0.93 (Writing 4). The Pearson correlation coefficients for the scores at two times for the two revision tasks were: 0.94 (Revision 1) and 0.95 (Revision 2). To check the inter-rater reliability, two EFL teachers scored 20% of the writings individually. Pearson correlation coefficients for the two scores in the four writing tasks were: 0.95 (Writing 1), 0.94 (Writing 2), 0.93 (Writing 3), and 0.94 (Writing 4). The Pearson correlation coefficients for the two scores in the two revision tasks were: 0.97 (Revision 1) and 0.98 (Revision 2).

Target Structure

The target structures of the current study were prepositions of manner and movement. Bitchener et al. (2005) studied and categorized some linguistic structures but prepositions were more problematic than other types of prepositions because of their similarity leading learners to confusion, for example, 'up' and

'over' and the interlanguage interference between Persian and English languages, which gives rise to Prator's split as the sixth level of difficulty (as cited in Brown, 2007), for example, *با* split into 'by' and 'with.' Further studies need to be carried out on the use of more than two structures to measure learners' retention to ensure the reliability of findings. Therefore, this study utilized prepositions of manner and movement which, to the best of our knowledge, have not been analyzed through written CF yet.

Procedure

The errors related to the abovementioned linguistic features in students' writings were corrected by one of the researchers. This syntactic structure was selected because as Nassaji and Swain (2010) pointed out, English prepositions are syntactic features that are less stressed in input than that of output. This means that students can better notice prepositions in their output rather than their input. In other words, learners find it relatively problematic to choose and use the appropriate preposition while producing language. However, they realize how important syntactic features are when they have to use them in the language production stage (output). By reading a text or even by listening to something in English, they do not encounter such a challenge. Additionally, EFL learners from different proficiency levels are always concerned about their accurate usage of prepositions in their oral and written productions lest they use prepositions incorrectly (Rassaei, 2019).

The researchers selected 90 learners based on convenience sampling as a population and administered OPT to guarantee their homogeneity; hence, 60 participants were sifted as a sample of the study. The sample was randomly assigned to two experimental and one control groups on WhatsApp application. Having been assigned to three groups of 20 individuals, they were given a pre-test writing task. Experimental groups received different WCF via WhatsApp as follows: Group A received explicit corrective feedback on their errors. ECF is explicitly reminding the student what the problem is through such techniques as an error code, a rule reminder, or a brief explanation (Bitchener, 2012) but only the last technique was utilized as well as the correct form provision. Group B received implicit corrective feedback. For group B, incorrect prepositions were simply underlined to make the student aware of an unspecified error via an underlined or highlighted text portion or a check-mark in the margin (Bitchener, 2012, p. 116). Group C, the control group, completed the writing tasks without any type of CF delivery.

Two treatment options including ECF and ICF were formed and each of the participants was assigned to one of the two error correction methods, randomly. Consider the following instances for ECF and ICF:

ECF

S: This movie is inspired from a book.

T: The preposition follows ‘inspire’ is ‘by.’ It does not take ‘from.’

ICF

S: This movie is inspired from a book.

The teacher underlined the preposition produced wrongly.

The present study was carried out in five sessions of thirty minutes. Considering the interval between the sessions, the treatment procedure lasted about four weeks. Writing topics were given during the sessions for the three groups, taking learners’ English level and linguistic competence into consideration. The participants produced new sentences in each session. They were given new picture prompts each session to ensure they can write accurately.

Group A received ECF on their errors, that is, incorrect prepositions were underlined with a red color and the correct forms were written in their place. Group B received ICF on their errors; phrases containing incorrect prepositions were underlined to indicate an error had been committed but no further information was supplied, and the last group received no treatment. Then, an immediate post-test was administered to the three groups. Eventually, both the control group and its experimental counterparts took a delayed post-test after two weeks of the immediate post-test.

Results

To examine the effects of ECF and ICF on prepositions of manner and movement, one-way ANOVA is run to see the gain scores. Descriptive statistics for pre-test, immediate post-test, and delayed post-test regarding the two CF conditions and control group displayed total mean and standard deviation (SD) of 34.16 and 19.68 on pretest, 66.16 and 13.75 on immediate post-test, 66.66 and 13.58 on delayed post-test, respectively. Before testing the research questions, the researchers performed tests of normality to ratify their homogeneity.

Table 1
Test of Normality on Three Test

Group	Kolmogorov-Smirnov			Shapiro-Wilk			
		Statistic	df	Sig.	Statistic	df	Sig.
Pretest	Explicit CF	.151	20	.20	.960	20	.542
	Implicit CF	.184	20	.07	.925	20	.123
	Control	.115	20	.20	.969	20	.730
Post-test	Explicit CF	.116	20	.20	.943	20	.278
	Implicit CF	.138	20	.20	.932	20	.169
	Control	.126	20	.20	.968	20	.703
Delayed Post-test	Explicit CF	.117	20	.20	.950	20	.361
	Implicit CF	.150	20	.20	.922	20	.110
	Control	.133	20	.20	.965	20	.650

As table 1 shows, the data are normally distributed on three tests ($P > .05$). Therefore, the proper test to compare each group on the tests is One-way ANOVA.

Table 2
One-way ANOVA for Accuracy Gains on Three Tests

	Sum of Squares	df	Mean Square	Sig.
Pre-test				
Between Groups	16735.8			
Within Groups	6122.5	2	8367.9	
Total	22858.3	57	107.412	.00
		5	9	
Post-test				
Between Groups	2010.8	2	1005.4	
Within Groups	9157.5	57	160.6	.03
Total	11168.3	5	9	
Delayed post-test		2	1065.4	
Between Groups	2130.8	5	7	.02
Within Groups	8752.5	5	9	
Total	10883.3			

One-way ANOVA tests were carried out individually for each condition to find out which feedback type was more effective on each test. The table evinces that both CF condition groups were statistically more significant on immediate post-test and delayed post-test than pretest. To determine where the significant differences in accuracy gains lay between groups, post-hoc multiple comparisons were conducted using Scheffe.

Table 3

ANOVA: Comparing Error Rates of Writings on Immediate Post-test and Delayed Post-test

Groups	Mean Difference	Std. Error	Sig.	95% Confidence Lower Bound	Interval Upper Bound
Explicit Implicit	1.000	4.008	.96	-9.07	11.07
Control	12.750	4.008	.00	2.67	22.82
Implicit Explicit	-1.000	4.00	.96	-11.07	9.07
Control	11.750	4.008	.01	1.67	21.82
Control Explicit	-12.750	4.008	.00	-22.82	-2.67
Implicit	-11.750	4.008	.01	-21.82	-1.67
Explicit Implicit	-.750	3.918	.09	-10.59	9.09
Control	12.250	3.918	.01	2.40	22.09
Implicit Explicit	.750	3.918	.9	-10.59	9.09
Control	13.00	3.918	.01	2.40	22.09
Control Explicit	-12.250	3.918	.01	-22.09	-2.40
Implicit	-13.000	3.918	.00	-22.84	-3.15

Post-hoc pairwise comparison using Scheffe tests revealed there is a statistically significant difference between the experimental and control groups. To put it differently, ECF and ICF groups outperformed on immediate post-test and delayed post-test concerning control group. However, the control group did not show progress from pretest through immediate post-test to delayed post-test. In addition, the differences in mean error rate scores corroborate this point. Post-hoc pairwise comparison of the mean error rate scores using Scheffe also demonstrates that the two experimental groups were successful in error reduction.

Discussion

This experimental study attempted to investigate the impact of explicit and implicit corrective feedback provided by WhatsApp application on Iranian EFL learners' use of prepositions of manner and movement.

ECF and ICF had a statistically significant effect on Iranian EFL learners' use of prepositions, $P < .05$. The result of this research question is in congruity with Beşkardeşler and Kocaman's (2019) study. They examined the effect of WCF on prepositions of time and place which evinced that the two experimental groups outperformed the control group. Likewise, Bitchener, Young, and Cameron (2005) studied the effect of different types of CF on ESL student writing. They emphasized on direct CF, explicit WCF only which led to the outperformance of experimental groups. The control group of the current study

were more proficient than its experimental counterparts on the pre-test but the experimental groups significantly improved on the immediate post-tests and the delayed post-tests; however, the control group did not improve on these tests, namely, their scores on the immediate post-tests and the delayed post-tests were almost unchanged in comparison to the pre-test.

Technology inherently motivates the learners (Stockwell, 2013) which we believe the use of MALL contributed to improve the target structure of the present research as teaching via technologies will enhance learner motivation. As the participants took part in this study eagerly through getting them apprised of the purpose and procedure of the study as well as their rights to voluntary participation and confidentiality, this perspective of the motivational capacity of new technologies might led to a better outcome. Furthermore, it can be said that MALL explicit and implicit focus on these two target structures were effective and led to the participants' significant gains which are incongruent with Corlet, Sharples, Bull, and Chan's (2005) study which found MALL to be ineffective in foreign/second language learning. This study also indicates the void between MALL and the work being performed on CF on language writing. In addition to MALL contribution to the learners' gains, the students in Iran are mostly acquainted with traditional assessment and are less allowed to voice their thoughts, to comment on their peers' assignments, and evaluate their learning and these are the teachers' responsibility; as such, the experimental groups significantly improved in learning the target structures that delivered on the part of the teachers. Some other studies also represent concerns towards MALL contending face-to-face mode of teaching leads to a better outcome than MALL classrooms (e.g., Lindblom-Ylänne & Pihlajamäki, 2003; Braine, 2001).

Both ECF and ICF were effective in promoting prepositions of manner and movement on subsequent writing tasks in case they are repeated because feedback repetition eventuates in recalling the mistakes they made. Interestingly, both CF conditions maintained the accuracy and error reduction after two weeks of immediate post-test. The error reduction was noticed as each session moved forward which is not following Truscott and Hsu's (2008) and Liu's (2008) findings because CF was delivered only one time, unlike the present study which provided CF multiple times. It can be repeatedly argued that CF provision is efficacious if it occurs in multiple sessions. Additionally, no variation between the two CF is observed, that is, both experimental groups were successful in the use of prepositions of manner and movement on pre-test and immediate post-test.

Conclusions

The current study was an attempt to compare the effect of mobile-mediated ECF and ICF on Iranian EFL learners' use of manner and movement prepositions through a quasi-experimental study. Data analysis revealed that the two experimental groups outperformed the control group on the target structures. Furthermore, although the control group's gain scores were higher than its experimental counterparts', they have not progressed on immediate post-test and delayed post-test; however, the experimental groups showed significant improvement on immediate post-test and retained their progress on delayed post-test as well.

The results of the study imply that as ECF and ICF were beneficial tools that resulted in betterment, teachers can give the learners opportunities to revise and edit their earlier drafts to gain the final correct draft which according to Loewen (2004) can lead to automatization from control. Finally, it is suggested that language teachers employ mobile apps for CF provision and other language activities.

The study has some limitations which should be acknowledged. A comparatively small sample was included in this study. Moreover, it was restricted to ECF and ICF. Further research is required to replicate this study using a larger sample with moderating role of gender, cognitive and perceptual style. Additionally, future researchers can take other proficiency levels into account. Another study can be carried out comparing ECF and ICF in MALL and face-to-face mode. Another limitation would be the lack of self-reported data from participants (questionnaire/interviews) to know their experiences and perceptions regarding the use of mobile phones to receive feedback, and the extent to which they were more motivated because of this.

Conflict of interest statement

On behalf of all authors, the corresponding author declares that there is no conflict of interest.

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Zum Einfluss des mobil vermittelten, expliziten und impliziten Feedbacks auf die Verwendung englischer Präpositionen durch EFL-Lernende

Zusammenfassung

Fehler zu machen ist ein natürlicher Bestandteil des Lernprozesses. Dementsprechend ist es erforderlich, ein korrigierendes Feedback zu geben. In diesem Zusammenhang wurde in der vorliegenden Studie der Einfluss des mobil vermittelten, expliziten und impliziten korrigierenden Feedbacks auf die Verwendung englischer modaler und lokaler Präpositionen durch iranische EFL-Lernende analysiert. Zu diesem Zweck wurden insgesamt 60 Probanden nach dem Zufallsprinzip in drei WhatsApp-Gruppen zu je 20 Personen eingeteilt – zwei Versuchs- und eine Kontrollgruppe. Die Probandengruppen nahmen an einem Prätest teil, erhielten Anweisungen zu den untersuchten Fehlern und korrigierten sie in Anlehnung an korrigierendes Feedback. Anschließend wurde ein Post- und ein Follow-up-Test durchgeführt. Die statistische Analyse ergab, dass obwohl die Probanden in der Kontrollgruppe im Prätest besser als die in den Versuchsgruppen abgeschnitten hatten, konnten sie ihre Leistungen im Post- und im Follow-up-Test nicht verbessern. Die Teilnehmer der beiden Versuchsgruppen verbesserten hingegen ihre Ergebnisse im Posttest und konnten die erzielten Fortschritte im Follow-up-Test beibehalten. Abschließend wurden die pädagogischen Implikationen sowohl für Lehrkräfte als auch für Lernende abgeleitet.

Schlüsselwörter: mobil vermitteltes korrigierendes Feedback, explizites korrigierendes Feedback, implizites korrigierendes Feedback, Präpositionen