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Effects of Using Instagram on Iranian Intermediate Autonomous/Dependent EFL Learners' Learning of Pictorial Metaphors

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Abstract

This study was an attempt to investigate whether using Instagram had any significant effects on Iranian intermediate autonomous/dependent EFL learners' pictorial metaphors or not. In doing so, Oxford Placement Test was administered among100 EFL learners studying at Rooyesh language institute in Kelishad, Isfahan, Iran; and based on the results, 80 EFL learners were selected. Then, the autonomy test was conducted to divide them into autonomous and dependent groups. In the next step, they were divided into two equal experimental and control groups (N=40) that each group was subdivided to an autonomous and a dependent group (i.e., 20 autonomous and 20 dependent participants in each CG and EG). Their age ranged between *41* and *41* years old. Gender of participants was not considered as a variable in the study. Next, a metaphorical expression pretest was administered to all groups of the study and then the experimental group was given the metaphorical expressions via Instagram application, whereas the control group only followed conventional treatment. At the end, the posttest of L2 metaphorical expression was administered to both groups of the study and finally the data were analyzed. Analyzing the data through the one-way repeated measures ANOVA and ANCOVA revealed that utilizing Instagram application had a positively significant effect on autonomous/dependent Iranian intermediate EFL learners' pictorial metaphors learning. Furthermore, both autonomous and dependent students had a positive attitude toward using Instagram Application.

Keywords: Mobile Assisted Language Learning, Instagram Application, Learner Autonomy, Pictorial Metaphors

1. Introduction

The use of internet, digital technologies and social media platforms have gained an exceptional popularity and become an inevitable part of daily life in recent years. A current tendency that connects digital technology and language learning is mobile-assisted language learning (MALL). Using mobile phones and their various applications have been welcomed in language teaching and learning as a new approach. Most of students have mobile phones with several applications, which can be used for acquiring a language. These applications of technology in education have motivated foreign language practitioners to change their teaching and learning methods and help them to be more autonomous.

Moreover, the new generations who have been well-known with high-tech application since their childhood cannot contribute in classrooms with old-fashioned teachings including teachers, textbooks and blackboard (Vinc & Cucchi, 2010). Therefore, teaching and learning can no longer take part in traditional classrooms or laboratories. Furthermore, these applications are available to everyone and fascinate learning and teaching process by assisting teachers to prepare materials and aiding students to obtain information whenever they want. Studies concerned with MALL have displayed a positive impact for technology use on language learning (e.g., Kondo et al., 2012; Liakin, Cardoso, & Liakina, 2015; 2017; Liu, Navarrete, Maradiegue, & Wivagg, 2014; Stockwell, 2010). The results of studies show that MALL increase language learning motivation (Kim D., Rueckert, Kim, D.-J., & Seo, 2013), promote collaboration and interaction (Goh,Seet, & Chen, 2012). Because English is recognized as the most commonly used language in the world, intelligibility has a great significance in order for English acquiring speakers to communicate perfectly. Smartphones also supply a blueprint for autonomous learning (Reinders, 2010). Mobiles are inevitably a way of independent language learning (Clarke & Svanaes, 2015; Nino, 2015; Persson & Nouri, 2018).

A fundamental issue in learning a second language is learning metaphorical expressions. To casting a look on the process of learning and teaching in L2 classrooms, you will be noticed that non-native English learners might have a good knowledge of grammar, speaking, writing and listening, but they mostly have lacking knowledge of metaphorical expressions compared to native speakers. That is to say, L2 learners discourse might show a high degree of verbal fluency and lack of the conceptual appropriateness than that exemplifies of natives (Hashemian & Talebinezhad, 2007). Native speakers often use metaphorical expressions in their spoken conversations, but these expressions, most of the time, can cause confusion for L2 learners because there is a difference between the figurative meaning and the denotative meaning of a metaphorical expression. L2 learners often have little chance to practice or use metaphorical expressions in classrooms. So, it is demanding for L2 learners to develop their metaphorical competence levels to have native–like proficiency (Littlemore, 2001). According to Hashemian & Talebinezhad, 2007, Mastery of appropriate use of metaphorical expressions has been recognized as one of the greatest challenges to L2 learners. Their display of metaphorical expressions is so limited as well. Due to the widespread use of idiomatic expressions in daily conversations and in order to develop speech fluency, L2 learners need to learn how to use idiomatic expressions appropriately (De Caro, 2009; Oppenheim, 2000). However, the lack of explicit education of teaching English metaphoric expressions, mainly because of their figurative nature, poses a great problem to their acquisition. In fact, figurative language has not received substantial attention from L2 teachers and learners alike. Therefore, many learners are weak in this respect. On the other hand, the successful acquisition of an L2 will involve the development of a new repertory of metaphorical language (Danesi, 1992, 2003). From the researchers' point of view, learners' metaphorical abilities will improve if they can learn these expressions effectively and use them correctly and adequately. In the present study, the researcher used Instagram application for the sake of learning and improving metaphorical expressions among Iranian Intermediate Autonomous/Dependent EFL Learners. This mobile application due to its capabilities can provide a good platform for L2 learners to learning fluent English by contextualized visual information. So, it can be very useful in educational setting, because it provides visual elements for visual students. Pictures might facilitate the interpretation of metaphorical language by providing the pictorial representation of a metaphorical expression from which the listener can extract or infer the appropriate sense of the expression. Moreover, using Instagram in classrooms can help teachers and students in creating a socially connected community beyond classroom walls. In addition, it can facilitate autonomous learning (Hafner, Chik, & Jones, 2013; Barton & Potts, 2013).

The study was an attempt to investigate how Iranian autonomous and dependent EFL learners view, share and react to English language educational content of metaphors via Instagram. In order to fulfill the purpose of this study, the following research questions have been raised by the researcher:

1. Does using Instagram have any significant effect on Iranian intermediate autonomous EFL learners' learning of pictorial metaphors?
2. Does using Instagram have any significant effect on Iranian intermediate dependent EFL learners' learning of pictorial metaphors?
3. Does using Instagram have any significant effect on Iranian intermediate autonomous/dependent EFL learners' learning of pictorial metaphors?

The following null hypothesis has been designed, based on the research questions:

H_1: Using Instagram does not have any significant effect on Iranian intermediate autonomous EFL learners' Learning of Pictorial Metaphors.

H_2: Using Instagram does not have any significant effect on Iranian intermediate dependent EFL learners' Learning of Pictorial Metaphors.

H_3: Using Instagram does not have any significant effect on Iranian intermediate autonomous/dependent EFL learners' Learning of Pictorial Metaphors.

2. Literature review

English learning is considered as an important factor in various professional successes and a channel for interacting in many communities. Todays, with the rapid development in technology, mobile devices such as mobile phones, personal digital assistants (PDAs and tablet PCs) have also attracted people's attention to be used in teaching-learning process (Hsu,

2013). It is not just a communication device any more. However, it is a useful computer that fits into students' pockets and always with them (Prensky, 2005). Technology has been involved in learning for many years. The use of cassette players or videos in language classes is an example, while mobile applications have a unique feature which is mobility (Kukulska-Hulme & Bull, 2008).

Mobile devices can provide a convenient environment for this learning. The compatibility of mobile devices brings along numerous learning opportunities for language learners. Mobile technology is fast; therefore, it provides the language learners with instant feedback. It can also situate learning in a meaningful context by giving the learners the opportunity to interact and share ideas (Brown, 2000). Nowadays, participants in some institutions learn English through smart phones. Trifanova, Knapp, Ronchetti, and Gamper (2004) define mobile devices as "any device that is small, autonomous, and unobtrusive enough to accompany use at every moment" (p. 3). In this way mobile phones also foster collaborative learning (Kukulska-Hulme, 2010). Prensky (2005) states that a mobile phone is one of the instruments which can be used by students to learn in technology era. Zhao (2005) indicates that smart phones prepare the best situation for foreign language learning. In addition, mobiles can be used in numerous forms such as face-to-face or distant modes.

Kukulska-Hulme (2006) believed that the role of mobile phones in learning language is a mediating one, as language learners, teachers and even content can all interact by using mobile phones. This justifies the growing trend in using mobile phones in ESL/EFL settings. This new trend of using mobile devices in teaching-learning process is called as mobile learning (M-learning). Based on the different definitions provided for m-learning, it is employing different technologies that makes m-learning different from other kinds of learning (O'Malley, C., Vavoula, G., Glew, J., Taylor, J., Sharples, M., & Lefrere, P., 2003). As supported by Dehkordi (2018), M-learning as one technology that takes on a greater prominence in teaching-learning process especially in language learning. It shows that m-learning is a learning strategy that can be implemented by using handheld device and done anywhere and anytime. According to O'Malley (2003) m-learning includes any kind of learning that takes place when the learner is not in a fixed state and he/she takes advantage of mobile technology. Generally, Geddes (2004) defined m-learning in very simple words. He states mobile learning meant learning anywhere or anytime with the technology of mobile phones; that it extends teaching and learning outside of the walls of the classroom. An important feature of this type of learning is that students feel responsible for their own learning. Sharples (2006) viewed this mobile learning as a personalized learning activity which is flexible and compatible with one's needs. However, as classroom context alone cannot come across the students' requirements in language learning, mobile learning can be a positive element. Nowadays, m-learning is an important part of the educational technology and for many different subjects. Therefore, based on several studies, it has proved that m-learning is useful to enhance language skills. M-learning is beneficial for those who cannot participate in language institutions because of the job, household duties and other functions that demand time (Muhanna, 2011). Stockwell (2012) maintains that new technologies are emerging while new types of practical constraints might appear. Inevitably, as Stockwell (2012) mentions, "mobile learning will continue to take on new shapes and forms as it becomes more familiar to both teachers and learners" (p.30).

Related to language learning, Mobile learning is further developed into the term Mobile Assisted Language Learning (MALL). Mobile Assisted Language Learning can be defined as language learning which deals with mobile devices and technology (Sutrisna, Ratminingsih, & Artini, 2018). As supported by Kukulska-Hulme and Traxler (2005), types of mobile devices in Mobile Assisted Language Leaning are smartphones, tablet, and laptops. These devices are used as its name mobile technology which facilitates the users by the function of mobility and portability. It means that these devices are easy to be carried which makes the teachers and students can use these devices to learn anywhere and anytime. This popularity of the usage of MALL is due to the learning opportunities that mobile phones would have made for language learners. Specifically, the use of mobile phones in language learning provides teachers and learners with substantial educational benefits, including the possibility of recording and playing audios, low costs, portability, learner friendliness, easy access, and interactivity (Kukulska-Hulme & Shield,2008; Stockwell, 2010; Wishart,2008). As stated by Sharples (2006) "Mobile assisted language learning characterizes the use of personal, portable devices that enable new ways of learning, emphasizing continuity or spontaneity of access and interaction across different contexts of use" (p.24).

The use of MALL has beneficial in language learning. Many studies had been conducted which is related to the use of mobile technology in this area. Most of these studies expose the current movements of operating mobile devices to support language learning. Results of previous studies show that MALL increase language learning motivation (Kim D., Rueckert, Kim, D.-J., & Seo, 2013), promote collaboration and interaction (Goh, Seet, & Chen, 2012). In this case, Thornton and Houser (2005) inspected the use of mobile devices by Japanese university participants in a language learning context and the results confirmed the positive effect of mobile devices. Basoglu (2010) compared traditional flash cards on paper with digital flash cards and mobile phones. His findings confirmed that the participants who had used the mobile application achieved better results. In another study by Sole, Calic, and Neijmann (2010), participants who reported working through mobile phones showed a better engagement in learning. Begum (2011) made an attempt to investigate the possibility of using cell phone in the EFL classroom of Bangladesh as an instructional tool. After analyzing the data, it was showed that despite some challenges, cell phone has great potential as an instructional tool. Baleghzadeh and Oladrostam (2011) investigated the effect of MALL on grammatical accuracy of EFL participants. The results showed that the participants in the experimental group displayed better performance than the participants who were in the control group. Motallebzadeh, Beh Afarin, and Daliry Rad (2011) proved that SMS has a positive influence on the retention of collocations among Iranian lower intermediate EFL learners and that participants have a positive attitude toward learning collocations through SMS. Dashtestani (2013)

investigated the attitudes of Iranian English as foreign language teacher toward the implementation of MALL. The result revealed that there were positive attitudes of the participants toward the use of mobile phones for language learning and teaching. Weng and Chen (2015) found that students had positive perceptions toward the use of smartphone application in EFL learning. The students believed that the use of smartphone in EFL learning can be done anywhere and anytime. According to Chiu et al. (2015), the use of mobile device in language learning could improve students' language skills. It is because mobile devices provide some features and applications that support language learners to improve their language skills. Moreover, Krivoruchko et al (2015) states that through the implementation of MALL facilitates mobility to language learners and teachers. It means that language learners can learn their target language anywhere and anytime while, teachers can access teaching-learning material anywhere and anytime. In general, MALL has some benefits to teachers, students and learning process. Chartrand (2016) mentions that the use of dictionary application on smartphone enables learners to improve their pronunciation and vocabulary mastery. It is because language learners can listen to the correct pronunciation from the dictionary application and then try to pronounce it. Further, He identifies that language learners and teachers enable to access learning materials easily. Wagner et al. (2016) found that the respondents has positive perceptions in which they believed that MALL is good learning strategy to support their teaching learning process. As supported by Yudhiantara and Saehu (2017), they found that students' perception toward mobile phone to support classroom activities were positive. Classroom activities were supported by reading e-books that contained Phonology subject, playing audio and video file to get visualization of the Phonological concept, and operating offline dictionary. Oz (2015) states that the successful integration of mobile technology in English learning does not depend on the technology itself, but it depends on some degree such as students' and teachers' awareness, and perception toward the technology in integrating to English learning. Therefore, it is important to know the users' perception toward technology in English learning in order to achieve successful implementation of technology in English learning (Shorfuzzaman & Alhussein, 2016). Grimshaw, Cardoso, and Collins (2017) reported that most language teachers were opened to engage their students in MALL, but they still worried with the limitation of MALL. In line with Azli, Shah, and Mohamad (2018), Mobile Assisted Language Learning as formal and informal learning can support traditional learning. It is said as formal and informal learning because it can be done both in the classroom and outside of the classroom. They found that the respondents had positive perception toward the use of MALL in classroom. They assumed that the use of MALL could enhance the teaching learning process. They also hoped that MALL can be used by educators to assist them in EFL teaching learning process become effectively. MALL researchers state that this ease of communication with teachers and peers is a major opportunity of the utilization of mobile phones for language learning (Nah, White, & Sussex, 2008; Rosell-Aguilar,2007).

Dehkordi (2018) also found that there was no significant difference between perception of male and female learners. Both perceived positively toward the use of technology-based learning like MALL in EFL learning process. Widiana, Santosa, and Myartawan (2018) also found that tenth grade students had positive perception toward MALL in learning English. Besides, students who had mobile technology tend to have more positive perception rather than students who had no mobile technology.

Alternatively, some MALL researchers believe that the use of mobile phones for language learning might facilitate the process of language learning while possible challenges can be accommodated or alleviated (e.g., Stockwell,2008; Stockwell.2012; Thornton & Houser,2005). Despite general acceptance of the implementation of MALL in EFL contexts, a number of EFL experts have pointed out considerable challenges to the use of mobile phones for language learning and teaching. As Stockwell (2008) argues, one major obstacle to the use of mobile phones for language teaching is students' reluctance to use mobile phones for their educational and academic purposes. Thornton and Houser (2002) assert that the small screen size of mobile phones would create another challenge to the implementation of MALL. High cost of the use of mobile phones for educational purposes might discourage students and teachers from implementing MALL in EFL courses accordingly (Stockwell,2007). Similarly, limited presentation of graphics of mobile phones may act as another impeding factor (Albers & Kim,2001). Therefore, it is expected that most limitations of mobile phones for language learning will disappear in the future. Dashtestani also (2013) asserts that there were some problems faced by Iranian English teachers in implementing MALL. The problems such as students may not use their mobile phones for academic purposes, small screen size and keyboard of mobile phones, low speed internet connection if there was no Wi-Fi or packet data.

Additionally, Abdelraheem and Ahmed (2015) state that Mobile Assisted Language Learning is a language learning strategy that uses mobile phone applications such as Facebook, Instagram, YouTube and other social media that supports language learners to learn their target language. Additionally, Seo (2016) states that WhatsApp can be used in language learning because this application enables teacher and students to communicate outside of classroom. It also enables teacher to share learning material through group chat to students. From those statements, Mobile Assisted Language Learning can be inferred as language learning strategy which uses smartphones, laptops and tablets as tool. These devices can be used in implementing MALL through utilizing some features and applications that is related to learning materials.

3. Method

3.1. Participants

The sample consisted of 100 male and female Persian L2 learners who were non-randomly selected, with the age range of 14 to 18 years old. The participants were EFL intermediate learners, learning English at Rooyesh English Institute in

Kelishad, Isfahan, in the fall term of 2020. The intermediate level was selected in this study because this level has the required competence in comprehending metaphorical language. All the participants were fluent in Persian as their L1 background and none of them had lived in an English-speaking country. They also had the same cultural and socioeconomic status. The Oxford Placement Test (OPT; Allen, 1992) was utilized to check the participants' homogeneity at the outset of the experiment. Out of 100 intermediate participants who took the OPT test, 20 participants who had scored lower than 60 were eliminated from the study because they were not proficient enough at the intermediate level. Consequently, 80 homogeneous participants were assigned to serve as the main participants. Then, the autonomy test was conducted, 37 learners were found to be autonomous and the remaining 43 learners were labeled as dependent EFL learners. In the next step, both autonomous and dependent were randomly assigned to an experimental group (EG), comprising 19 autonomous and 22 dependent learners, and a control group (CG), comprising 18 autonomous and 21 dependent learners.

3.2 Instruments

In order to collect the required data, the following instruments were used:

Oxford Placement Test (OPT) – The first instrument was OPT which is an international flexible test and had been developed after consultation with an L2 instructor to homogenize the participants and to ensure reliability and validity of selection of the participants. In fact, OPT provides L2 teachers time-saving and reliable method of finding the proficiency level of the participants in English. Another feature of this test is easy and quick to administrator. It is the grammar test which includes 100 items and each has three choices. According to scoring guideline by Allen (2004), scores between 60-75 were considered as the intermediate level.

Autonomy questionnaire – An autonomy questionnaire which is designed by (Zhang and Li,2004, Oxford ,1990, Wenden ,1998, O'Malley and Chamot 1990, as cited in Dafei ,2007, pp 9,10) was given to all participants to investigate which participants were autonomous and which participants were dependent. Autonomy questionnaire had two parts including 21 questions. The first section of the test had 11 questions and each question had 5 options in Likert scale from never to always. The second section had 10 questions. The test takers should select the closer answer to their attitudes or ideas in 30 minutes, the participants' choices in the questionnaire were the scores from A to E that are respectively 1,2,3,4 and 5. It measured and determined the participants' autonomy with a maximum possible score of 100. Iowa Developing Inventory (IDAI) was used. The researcher followed IDAI rules to calculate the scores.

To promote validity of the questionnaire and to avoid confusion, the participants also were given the Persian translated version of questionnaire which checked by experienced professors of English Department of Islamic Azad University of Najafabad before piloting. In order to check reliability, the questionnaire was piloted among 20 participants with the same characteristic of the target sample and reliability was calculated. The Cronbach's Alpha formula turned out to be 0.70 that was in an acceptable range; and ensured the researcher of the reliability of the questionnaire.

Pretest – Prior to the lunching of the study, the researcher-designed pretest which was specifically designed to tap into the participants' metaphorical competence in terms of comprehension of metaphorical language. This multiple-choice test contained 25 items. The examples of the pretest were derived from Instagram to test the required metaphorical expression. The test had two sections. The first section of the test required the participants to select the meaning of some metaphorical statements from the given options, and the second section required the participants to read the incomplete metaphorical expressions and choose the appropriate option to complete the metaphorical expressions. Because the aim of the present study was to check whether the participants learned the meaning of the metaphorical expressions or not, the multiple-choice items could be the best choice. The reliability of the test was computed to be 0.85 via KR-21 formula. To determine the validity of the test, the test was checked by a panel of experts specialized in the field.

Posttest – The format of metaphorical and the content of posttest was exactly the same as the pretest, and the number of the items of this test were the same as those of pretest but to remove test practice effect, the place of items and options was changed. It was used to measure the learning of metaphorical expressions of the proposed methods after five-session instructions in three groups.

Instagram Application –To fulfill the study, Instagram application was utilized for both the students and teacher. In so doing, teacher as the researcher, created a group including the experimental participants and sent them the pictorial metaphors posts via the Instagram application.

3.3. Procedure

To conduct the study treatment, the researcher had to choose the appropriate level for the participants which was the intermediate level. Actually, the participants were not aware of their selecting as the participants of the study. Prior to the lunching of the study, the participants were tested for their homogeneity. Eighty intermediate participants sat for the placement test to judge their proficiency level in general English. The placement test was OPT whose reliability had been proved. The test also was valid because it met the purpose of the study. Based on the test results and the interpretations provided by the writers of the placement test, 80participants whose scores were among 60-75 were selected as the intermediate participants for the next level. Then, the autonomy test was conducted to specify autonomous and dependent participants.

In the next step, the researcher randomly assigned both autonomous and dependent participants into two groups including a control and an experimental group. Each EG and CG group had the equal size and subdivided to both autonomous and dependent groups; So each CG and EG has an autonomous and one dependent group. The participants attended their usual classes without knowing anything about their usual state in either experimental or control group. According to this study, five

sessions in three weeks (i.e., twice a week) and about 15 min to the end of each session were assigned to teach metaphorical expressions beside the lesson plans.

Both autonomous and dependent students in the experimental group received new metaphorical expressions through the picture which followed by a short text that contained that metaphorical expression and its definition in a funny way from their teacher.

In the control group, the metaphorical expressions were only exposed to the participants (both autonomous and dependent participants). During the study course, the two EG and CG and their autonomous and dependent groups received the same amount of instruction on English metaphorical expressions.

At the end of the experimental period, the posttest was administered by the researcher in all groups to examine the possible effects of Instagram on learning the pictorial metaphors among autonomous and dependent students in both EG and CG.

Although the format, content and number of questions of this test were similar to pretest. Just like the pretest, the posttest contained 25 items with one point for each item. It consisted of two sections: The first section required the participants to choose the best item to complete the given metaphorical expressions and the second sections asked participants to choose the best definition for the bold metaphorical expressions. The participants had 15 minutes to answer the test.

3.4. Data Analysis Procedures

After the procedure mentioned above, the data were subjected to descriptive analysis. Then, normality assumption of OPT, pretest, and posttest scores of the autonomous and dependent learners in the EG and CG was checked by the Shapiro-Wilk's test. To this end, such descriptive statistics as minimum, maximum, mean, and standard deviation were calculated using Statistical Package for the Social Sciences (SPSS) program to test the research hypotheses and answer the research questions. Then, to see if using Instagram had any effect on learning pictorial metaphors among Iranian intermediate autonomous and dependent EFL learners, inferential statistics, ANOVA and ANCOVA were carried out. To compare the mean of autonomous and dependent participants in the two groups of EG and CG, one-way ANCOVA was computed.

4. Results

4.1. Results for the Shapiro Wilk's Test of Normality

Prior to using the parametric tests of AVOVA and ANCOVA, it was imperative to test the normality assumption underlying these parametric tests. Hence, the results of the Shapiro-Wilk's test of normality for the OPT, pretest, and posttest scores of the autonomous and dependent learners in the EG and CG are presented in Table 4.1. below:

Table 4.1. Results for the Shapiro Wilk's Test of Normality

Groups	Autonomy		Shapiro-Wilk		
		Tests	Statistic	*df*	Sig.
Experimental Group	Autonomous	OPT	.952	19	.460
		Pretest	.954	19	.484
		Posttest	.961	19	.623
	Dependent	OPT	.964	22	.674
		Pretest	.958	22	.557
		Posttest	.935	22	.242
Control Group	Autonomous	OPT	.960	18	.606
		Pretest	.940	18	.290
		Posttest	.943	18	.332
	Dependent	OPT	.953	21	.482
		Pretest	.931	21	.199
		Posttest	.967	21	.734

In Table 4.1., the p values under the Sig. column show whether the distributions for the OPT, pretest, and post-test scores of the autonomous and dependent learners in the EG and CG were normal or not. Due to the fact that all the p values lined up under the Sig. column in Table 4.1 were greater than the significance level of .05, it could be inferred that the all the above-mentioned distributions enjoyed normality. The researcher could thus safely proceed with the analysis of the intended parametric tests, one of which was the ANOVA test which was used to ensure the homogeneity of autonomous and dependent learners in the experimental and control groups of the study.

4.2. Results of Descriptive Statistics for the OPT Scores of the Learners

The results of descriptive statistics for the comparison of the learners' OPT scores are presented in Table 4.2. below:

Table 4.2. Results of Descriptive Statistics for the OPT Scores of the Learners

Groups	Autonomy	Mean	Std. Deviation	*N*
EG	Autonomous	68.94	2.93	19
	Dependent	68.13	2.33	22
	Total	68.53	2.63	41
CG	Autonomous	67.66	2.74	18
	Dependent	68.42	3.23	21
	Total	68.04	2.85	39
Total	Autonomous	68.30	2.83	37
	Dependent	68.27	2.78	43
	Total	68.28	2.80	80

Table 4.2. depicts that in the EG, autonomous (M = 68.94) and dependent (M = 68.13) learners were not far different from one another with respect to their OPT scores, and this was also true for the CG learners, where the mean scores for autonomous and dependent learners were 67.66 and 68.42, respectively. In addition, the total mean scores for EG (M = 68.53) and CG (M = 68.04) were not substantially different, and nor was the difference between the total mean scores for autonomous (M = 68.30) and dependent (M = 68.27) learners.

4.3. Results of One-way Between-groups ANOVA for the OPT Scores of the Learners

To provide robust evidence for these observations and to ascertain the homogeneity of the autonomous and dependent learners in the EG and CG, the results of the ANOVA table had to be consulted:

Table 4.3. Results of One-way Between-groups ANOVA for the OPT Scores of the Learners

	Sum of Squares	*Df*	Mean Square	*F*	Sig.
Between Groups	16.11	3	5.37	.67	.57
Within Groups	606.68	76	7.98		
Total	622.80	79			

It could be found in Table 4.3 that the p value under the Sig. column was greater than the .05 level of significance (p = .57 > .05), which indicates that the autonomous and dependent learners in the two groups of EG and EG were not significantly different from one another regarding their OPT scores. This result is also graphically illustrated in the bar graph in Figure 4.1.:

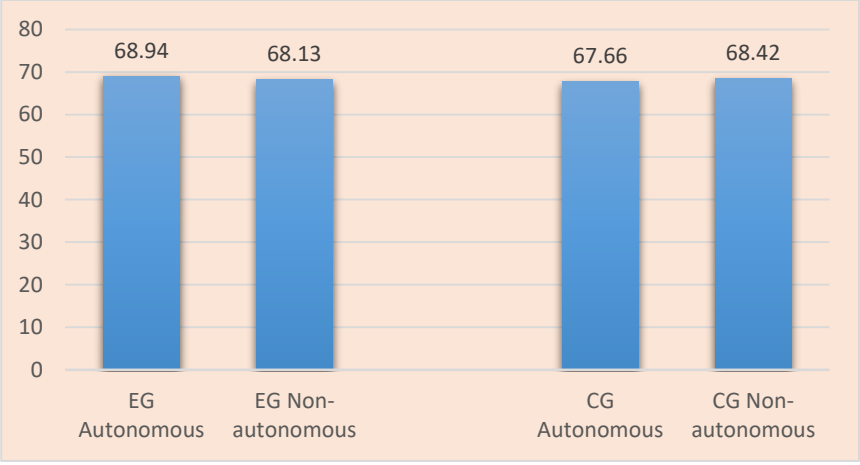

Figure 4.1. OPT mean scores of autonomous and dependent learners in the EG and CG

It could be vividly seen in the bar graph in Figure 4.1 that the autonomous and dependent EFL learners in the EG and CG were almost similar with respect to their overall level of language proficiency, which implies their homogeneity at the beginning of the study.

4.4. The Results Regarding the First Research Question and Hypothesis

To be able to test this hypothesis, the researcher compared the post-test scores of autonomous learners in the EG with the post-test scores of autonomous learners in the CG. To control for any possible pre-existing differences between these two groups of learners (on their pretest), one-way ANCOVA was conducted. This statistical procedure controls for any possible differences between the two groups on the pretest and then compares their post-test scores. The results of the ANCOVA analysis are presented in the following tables:

Table 4.4. Descriptive Statistics for the Posttest Scores of Autonomous Learners in the EG and CG

Learners	Mean	Std. Deviation	*N*
EG Autonomous	20.73	1.69	19
CG Autonomous	16.83	1.65	18
Total	18.83	2.57	37

Descriptive statistics such as mean and standard deviation are shown for autonomous learners in both EG and CG learners in Table 4.4. The posttest mean score of the EG autonomous learners (M = 20.73) was found to be larger than the posttest mean score of the CG autonomous learners (M = 16.83). To find out whether this difference was a significant one or not, the researcher had to look down the Sig. column across the row labeled Groups in the ANCOVA table (Table 4.5):

Table 4.5. Results of One-way ANCOVA for Comparing Posttest Scores of the EG and CG Autonomous Learners

Source	Type III Sum of Squares	*Df*	Mean Square	*F*	Sig.	Partial Eta Squared
Corrected Model	140.86	2	70.43	24.39	.00	.58
Intercept	1011.86	1	1011.86	350.48	.00	.91
Pretest	.02	1	.02	.00	.92	.00
Groups	139.75	1	139.75	48.40	.00	.58
Error	98.15	34	2.88			
Total	13369.00	37				
Corrected Total	239.02	36				

In Table 4.5., across the row labeled Groups and under Sig. column, a p value less than the .05 level of significance (.00 < .05) indicates that the difference between autonomous learners in the EG (M = 20.73) and the CG (M = 16.83) was statistically significant. Under the column labeled Partial Eta Squared, the corresponding effect size value was .58, which shows that being in different groups (EG vs. CG) accounted for 58% of the variance in the posttest scores of the learners. Differently put, the magnitude of the effect size (for the treatment employed in this study) was very large as Cohen (1988, cited in Pallant, 2010) holds: .01 = small, .06 = moderate, and .14 = large. The results obtained above are graphically shown in Figure 4.2. below:

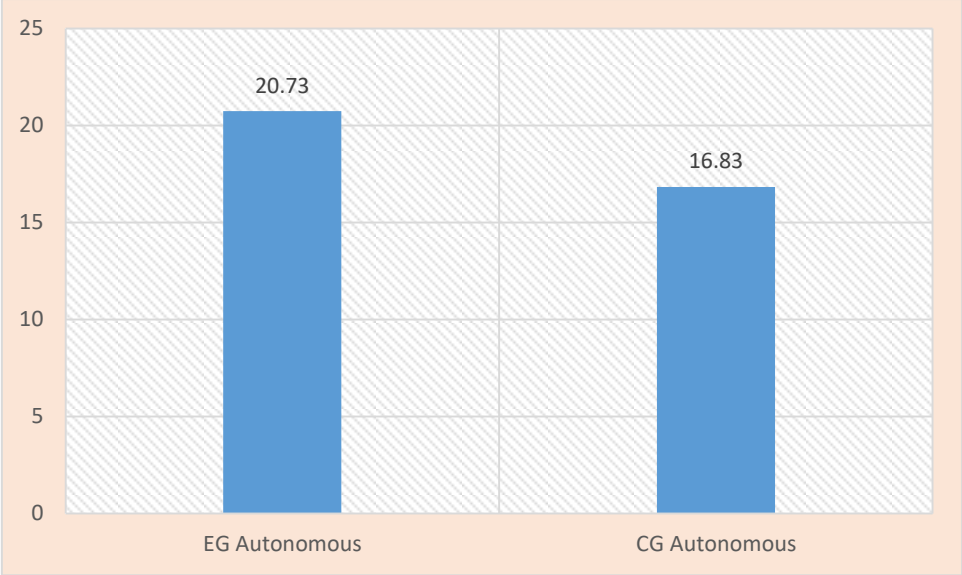

Figure 4.2. Posttest mean scores of autonomous learners in the EG and CG

Casting a quick look at the bar graph in Figure 4.2. reveals that autonomous learners in the EG (who were exposed to using Instagram for learning pictorial metaphors) significantly outperformed their autonomous counterparts in the CG. Consequently, the first null hypothesis of the study was rejected.

4.5. Answer to the Second Research Question

To put the second hypothesis to test, the posttest scores of dependent learners in the EG with the posttest scores of the dependent learners in the CG using a one-way ANCOVA was compared. The results of which are shown in Tables 4.6. and 4.7. :

Table 4.6. Descriptive Statistics for the Posttest Scores of dependent Learners in the EG and CG

Learners	Mean	Std. Deviation	*N*
EG dependent	17.83	1.75	22
CG dependent	15.66	1.95	21
Total	16.79	2.14	43

Table 4.6. depicts the mean scores and standard deviations for both EG and CG dependent learners. The posttest mean score of the EG dependent learners (M = 17.83) was larger than the posttest mean score of the CG dependent learners (M = 15.66). To find out whether this difference in the posttest scores of these two groups of learners was a significant one or not, the researcher had to look down the Sig. column in front of Groups in the ANCOVA table (Table 4.7.):

Table 4.7. Results of One-way ANCOVA for Posttest Scores of the Dependent EG and CG Learners

Source	Type III Sum of Squares	*df*	Mean Square	*F*	Sig.	Partial Eta Squared
Corrected Model	61.74	2	30.87	9.40	.00	.32
Intercept	948.61	1	948.61	288.84	.00	.87
Pretest	9.89	1	9.89	3.01	.09	.07
Groups	53.24	1	53.24	16.21	.00	.28
Error	131.36	40	3.28			
Total	12316.00	43				
Corrected Total	193.11	42				

Table 4.7. shows that across the Groups row, under the Sig. column, the p value was lower than the specified level of significance (.00 < .05), which indicates that the difference between the EG and CG dependent learners was statistically significant, with the former significantly outperforming the latter. Under Partial Eta Squared, the effect size value was .28, which indicates a large effect size for the treatment employed in this study. The obtained results in this part are also represented in Figure 4.3. below:

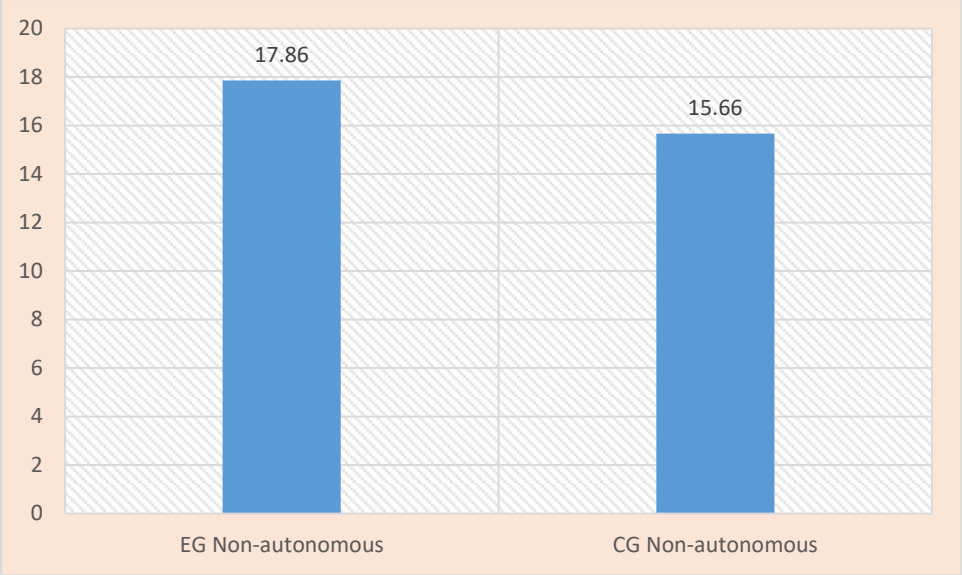

Figure 4.3. Posttest mean scores of dependent learners in the EG and CG

It could be noticed in the bar chart above that the dependent learners in EG could emulate their dependent counterparts in the CG, implying that the second null hypothesis of the study was also disconfirmed.

4.6. Answer to the Third Research Hypothesis

The third research hypothesis of the current study was "using Instagram does not have any significant effect on Iranian intermediate autonomous/dependent EFL learners' learning of pictorial metaphors." To test the veracity of this hypothesis, the EG autonomous and dependent learners' posttest scores were compared using a one-way ANCOVA:

Table 4.8. Descriptive Statistics for the Posttest Scores of Autonomous and Dependent Learners in the EG

Autonomy	Mean	Std. Deviation	*N*
Autonomous	20.73	1.69	19
Dependent	17.86	1.75	22
Total	19.19	2.23	41

The mean score for EG autonomous learners on the posttest was greater than the mean score of the EG dependent learners (20.73 < 17.86). To check whether this difference could reach statistical significance or not, the p value in front of Autonomy in the ANCOVA table (Table 4.9.) should be examined:

Table 4.9. One-way ANCOVA for the Posttest Scores of Autonomous and Dependent Learners in the EG

Source	Type III Sum of Squares	*df*	Mean Square	*F*	Sig.	Partial Eta Squared
Corrected Model	84.34	2	42.17	13.80	.00	.42
Intercept	1507.20	1	1507.20	493.35	.00	.92
Pretest	.18	1	.18	.06	.80	.00
Autonomy	83.57	1	83.57	27.35	.00	.41

Error	116.09	38	3.05
Total	15307.00	41	
Corrected Total	200.43	40	

In the above table, across from the Autonomy row, under the Sig. column, a p value lower than the specified level of significance (.00 < .05) could be seen, which indicates that learner autonomy significantly affected the posttest scores of the EG learners for pictorial metaphors. Under the Partial Eta Squared column, the corresponding effect size value shows a very large magnitude, implying that learner autonomy had a very large impact on the learners' learning of pictorial metaphors from the treatment provided in the present study. The obtained results are graphically represented in the bar graph in Figure 4.4:

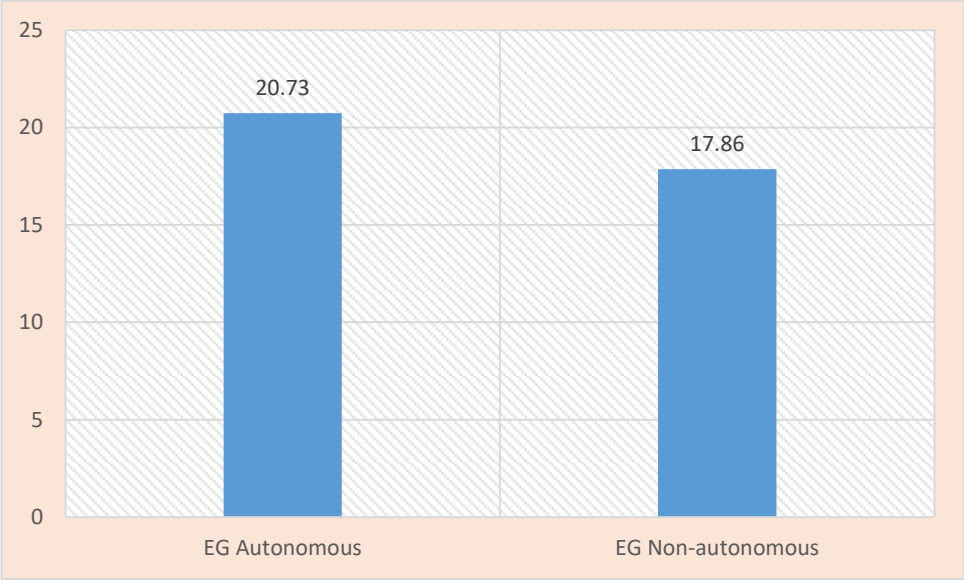

Figure 4.4. Posttest mean scores of autonomous and dependent learners in the EG

The bar graph illustrated in Figure 4.4. shows a significant difference between the pictorial metaphor posttest scores of autonomous and dependent EFL learners in the experimental group, which boils down to the rejection of the third null hypothesis of the present study.

5. Discussions

According to obtained results, the research questions and hypotheses dealt with whether using Instagram application had any significant effects on learning pictorial metaphors among Iranian intermediate autonomous/dependent EFL learners or not. Therefore, the three research questions were discussed in terms of their results in the previous chapter. As a result, the following research question and the null hypothesis were proposed:

5.1. Addressing Research Question One

In order to answer the first research question, stating that using Instagram does not have any significant effect on Iranian intermediate autonomous EFL learners' learning of pictorial metaphors, the posttest scores of autonomous learners in the EG with the posttest scores of autonomous learners in the CG were compared. The results of posttests showed that autonomous learners in the experimental group, which the participants had received instruction through Instagram, had a positive outlook toward utilizing Instagram Application. Also, to casting a look on the mean scores of both EG and CG for posttests, possible reason for improvement could have lied in the fact that Instagram Application was motivating.

Therefore, in line with the points proposed at the literature review section in chapter two, this study acknowledged the pedagogical advantages of MALL and justifies its extending in regard to its use for language learning, Azli, Shah, and Mohamad (2018) argued that Mobile Assisted Language Learning can be done both in the classroom and outside of the classroom. They found that the respondents had positive perception toward the use of MALL in classroom. They assumed that the use of MALL could enhance the teaching learning process. Wagner et al. (2016) found that the respondents has positive perceptions in which they believed that MALL is good learning strategy to support their teaching learning process. As supported by Yudhiantara and Saehu (2017), they found that students' perception toward mobile phone to support classroom activities were positive.

Instagram with some general features like popularity, particularly among young adults, and its high potential for contextualized visual data, could be considered as a mobile language learning tool. Spencer (2012) presented the other way to use Instagram as an educational tool, which it was about digital storytelling that can be promoted when students contribute their own content to an authentic audience. Students can express their feelings as well. Thus, it can set up a positive learning atmosphere. Purnima (2018), mentioned that Instagram increases students' motivation to learn and make them to participate in classroom activities. Consequently, the first null hypothesis was rejected.

5.2. Addressing Research Question Two

Concerning the second research question, stated that using Instagram does not have any significant effect on Iranian intermediate dependent EFL learners' learning of pictorial metaphors, the posttest scores of dependent learners in the EG with the posttest scores of dependent learners in the CG were compared. Based on the results, dependent learners in the experimental group, which the participants had received instruction through Instagram, had gotten better grades significantly rather than the dependent participants in control group.

With respect to Al-Ali (2014) mentioned that Instagram provided good opportunities to create more individualized learning experiences for language learner's prompts. Mansor and Rahim (2017) discovered that it is an efficient platform which it encourages students to interact with their other students. Furthermore, it seems Instagram Application could support autonomous learning as learners will consistently engage with a plethora of texts without the instruction or guidance of a teacher. Accordingly, Hafner, Chik, & Jones (2013) and Barton & Potts (2013) argued that Instagram can facilitate autonomous learning. Thus, second null hypothesis of the study was also rejected.

5.3. Addressing Research Question Three

Regarding to the third research question, the research hypothesis was "using Instagram does not have any significant effect on Iranian intermediate autonomous and dependent EFL learners' learning of pictorial metaphors." To this end, the posttest' mean scores of autonomous and dependent Learners in the EG were compared. The results showed that, the mean score for EG autonomous learners on the posttest was greater than the mean score of the EG dependent learners. To specify the difference, the one-way ANCOVA was run. So, the third null hypothesis was rejected as well.

Also, the descriptive statistics revealed learner autonomy as a fundamental factor that had a very large impact on the learners' learning of pictorial metaphors from the treatment provided in the present study.

6. Conclusion

EFL learners have a lot of weaknesses in educational settings in language learning such as grammatical mistakes, flawed conversational skills, problems in reading, difficulty in comprehension, limited vocabulary storage and so on. Todays, with technology and mobile phones, language learners can dramatically reduce their language learning difficulties. The present study was an attempt to investigate the effects of using Instagram Application (as a learning tool) on the learning of pictorial metaphors among autonomous and dependent Iranian intermediate EFL learners. Based on the findings of the current study, it was concluded that utilizing Instagram application had a positively significant effect on autonomous/dependent Iranian intermediate EFL learners' pictorial metaphors learning. In addition, it was revealed that both autonomous and dependent students had a positive attitude toward utilizing Instagram Application. It is also concluded that common traditional pedagogical (e.g. Classrooms, books, black boards, etc.) will be replaced by mobile teaching methods as soon. In this line, it is essential for both educators, and students to become active mobile users and enhance their own language skills and strategies for choosing and managing mobile application materials. According to Rostami, Akbari, and Ghanizadeh (2015), "one of the most important aspects of using technology in the classroom is that students are free from anxiety and there is no peer pressure which inhibits them from language learning easily. Hence, it seems in this fast-paced and ever-changing world we live in, network technology is not a mere luxury; it should be viewed as a basic survival skill. Furthermore, to survive in the global borderless world, each country, each organization, and individual needs to grasp the essence of globalization which is highly dependent on new technologies and equipment" (p. 20).

6.1 Pedagogical Implications

The first implication of this study addresses the language teachers. They should be aware of this fact that utilizing mobile phones and their various applications have been recognized in language teaching and learning as a new approach; especially for the new generations who have used high-tech application since their childhood cannot longer fulfill with old-fashioned teachings including classroom, teacher, textbooks and blackboard (Vinc & Cucchi, 2010). In this line, they should use mobile phones an influential teaching material to help and assisting students to reach their full potential in language skills without afraid to be replaced by technology. As Brierley and Kemble (1997) asserted, there is no need for educators to give up entirely their professions to the educational technology such as utilization of mobiles; rather, they should consider mobile phones as supplementary to the teaching profession.

English language is full of metaphorical expressions. Actually, metaphorical expressions are important and difficult components of any language and they also convey cultural values. Teaching and learning metaphorical expressions through the effective methods and in an innovative space can raise the consciousness of the L2 learner's figurative language and help the teaching process of metaphorical expressions.

According to the results of this study, learner autonomy has a great effect on learning. Thus, teachers should try to promote autonomy by different methods or strategies or awarding autonomous students.

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