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Effects of using Instagram on learning grammatical accuracy of word classes among Iranian undergraduate TEFL students

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Abstract

This study was an attempt to investigate the effects of Instagram application on learning grammatical accuracy of word classes of Iranian undergraduate TEFL students as well as to find out Iranian undergraduate TEFL students' perceptions of using Instagram application for learning grammatical accuracy of word classes. In doing so, an Oxford Placement Test was administered among 120 TEFL students, and based on the results, 92 students, studying in Islamic Azad University of Najafabad, Isfahan, Iran, were randomly selected. Then they were divided into two equal experimental and control groups (N=46).Their age ranged between 19 and 26 years old. Gender of participants was not considered as a variable in the study. The experimental group was taught grammatical accuracy of word classes via Instagram application, whereas the control group only followed conventional treatment. Analyzing the data through the independent sample t-test revealed that with the help of Instagram application, the experimental group outperformed the control group in terms of learning grammatical accuracy of word classes. Furthermore, Iranian TEFL undergraduate students had a positive attitude toward utilization of Instagram application.

Keywords: Instagram application; mobile assisted language learning; grammatical accuracy of word classes; TEFL students' perceptions

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1. Introduction

"Globalization has brought in its wake a lot of changes and innovations in the lives of people" (Onwuagboke & Singh, 2016, p. 78). Among all innovations and technologies, utilizing mobile phones and their various applications have been recognized in language teaching and learning as a new approach. Most of students have mobile phones with several facilities and can be used for acquiring a language. It can be stable and attracted activity for students. M-Learning can assist teachers to prepare materials and obtain response from their students. M-learning also aided students to obtain information by using mobile phone whenever they want. A number of studies have been conducted regarding mobile learning research. 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). 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. Wang and Smith (2013) examined both the limitations and the feasibility of developing English grammar and reading skills through the interface of mobile phones.

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). Therefore, teaching and learning do not always take part in laboratory or classroom. Making grammatical mistake is an important factor in different aspects, which causes many problems and prevents progress of students, for example, it causes shyness of students especially in speaking and writing skills. Students always try to memorize the grammatical points in the function of (Word classes), however they could not transfer them in their long-term memory, and they cannot use them in different situation correctly. Very often Iranian TEFL students create sentences that seem unknown to the native's hearing, because the order of the word in the sentence is not correct. The basic pattern for English sentences is (Subject-Verb-Object-Place-Time). A change in basic sentences order can make an English sentence meaningless and ungrammatical. The rapid growth of smartphones technology in recent years has become a very popular educational tool among Iranian students.In the present study, the researcher used Instagram application for the sake of learning and improving grammatical accuracy of word classes among Iranian TEFL students. Although this application has limited service, it can be useful for language learning. Instagram offers lots of contextualized visual information and can be very useful in educational setting, because it provides visual elements for visual students. In addition, using Instagram in classrooms can help in creating a socially connected community of students beyond classroom. Socializing on Instagram is mostly done through the like and comment functions. This study generally aimed to investigate the effects of using Instagram on learning grammatical accuracy of word classes of Iranian undergraduate TEFL students. In addition, there will be an attempt to find out Iranian undergraduate TEFL students' perceptions of using Instagram application for learning grammatical accuracy of word classes.

In order to fulfill the purpose of this study, the following research questions have been raised by the researcher:

- Does using Instagram have any significant effects on learning grammatical accuracy of word classes among Iranian undergraduate TEFL students?
- How do Iranian undergraduate TEFL students' perceive using Instagram for learning grammatical accuracy of word classes?

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

- The use of Instagram application has no significant effects on grammatical accuracy of word classes of Iranian undergraduate TEFL students.

2. Literature review

Mobile learning, which draws learning to place and set in fundamental information and experiences, is a specific approach providing new learning opportunities for children, communities, and countries that are mainly challenged socially or geographically. They expand public communications elemental for 21thcentury achievement, for instance collaboration and language acquiring and match with many learning situations in classroom environments or informal acquiring settings (Sharples Taylor, & Vavoula, 2005).They enable a modified learning experience, simplifying the one-to-one paradigm, and pointing learning to individuals. With the unstable ground of digital culture authorized by the new mobile technologies' affords several linked new opportunities for learning; the needs for becoming a literate participant in society have altered. Therefore, there is a need for new forms of teaching powered by technology (Gilakjani, Baleghizadeh, & Oladrostam, 2013). Several numbers of ICT can be used in learning and teaching process and distributed in all of the four skills. For example, teachers aiming to assist students can use ICTs such as computers, computer reading based-programs, CD players, multimedia software, electronic dictionaries, the Internet etc. However, to get internet access in some developing countries, ICT is still not entirely developed due to restricted infrastructure and the high amount of fees. Among all forms of ICTs, mobile devices are more appropriate tools for progressing education since almost 90% of students under the age of 18 have access to mobile technology. Therefore, the educational technology utilized MALL in teaching process.

2.1 Advantages of MALL

This demonstrates advantage as Suneetha (2013) stated that the experience of being independent can inspire students to continue their learning process for purposes. Though, some researchers suspect its achievement. They suppose that the satisfaction of using mobile devices is short-term. In addition, all learning performances are not appropriate to be used with mobile devices. However, as classroom context alone cannot come across the students' requirements in language learning, mobile learning can be a positive element. Now, mobile learning is an important part of the educational technology and for many different subjects. However, based on several studies, it has proved that mobile 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). Bell (2013) informed her efforts at using Instagram for college students' field trips in a library science course. While Salomon (2013) and Tekulve and Kelly (2013) also claimed about successful experience in using mobile phones in their libraries in compare of other social Medias.

2.2 Empirical Studies

A mixed method research was done by Liu and Tsai (2011) to explore the effect of using augmented-reality-based mobile learning material on EFL English. Five undergraduate students participated in this research. Data was gathered through students' articles and attitudes on an open-ended questionnaire regarding to their experience of mobile learning. The findings revealed that by applying augmented-reality-based mobile learning material participants could participate in the learning scenario, created linguistic and content knowledge, and produced meaningful essays. Li and Hegelheimer (2013) investigated MALL grammar exercises and its impact on self-editing in L2 writing. They applied a mixed-method approach to discover the effect of Grammar on the value of ESL learners' self-editing. Their perceptions of the mobile application as a tool to improve their English writing. The findings revealed a positive correlation of the learners' grammar performance with their gains on a grammar post-test, growth of self-editing corrections, and a reduction in errors in the final drafts of paper projects. Burston (2015) obviously describes the stages of article inclusion after eliminating most

of the studies; only 19 studies come across the selection criteria of statistically stated learning results. Therefore, he considered the number of MALL studies with general interpretations and the lack of measurable studies on learning consequences. Lastly, according to Duman and Orhon (2014), MALL studies, typically, are without any theoretical outline. They suggest an integration of design-based research to MALL for additional exploration. In this study, the researcher used mobile phone with Instagram application for learning grammatical accuracy of word classes in the form of picture.

3. Method

3.1 Participants

Administering an OPT, the researcher selected those whose scores fell between (±1) standard deviation. Consulting with three language experts, the researcher decided to consider the participants who fell between these standard deviation scores as pre-intermediate level. Therefore, from 120 Iranian undergraduate TEFL students, majoring in English Language Teaching at Azad University of Najafabad, Isfahan, Iran, 92 students were randomly selected. Their age ranged between 19 and 26 years old. Gender of participants was not considered as a variable in the study. They were equally divided into experimental and control groups (N=46). The experimental group was taught via Instagram application, by which they were taught grammatical accuracy of word classes through Smartphone connections, whereas the control group only followed conventional treatment, in which the instructor explained the rules explicitly on the board and gave some examples for each rule. There was an attempt to select these participants from five English classes with nearly the same language experience since all of them were senior language learners. Table 1 displays the participants.

Table 1

Number of TEFL Students of the study

Groups	No. of the participants
Experimental Group	46
Control Group	46
Total	92

3.2 Instruments

To collect the required data, the following instruments were utilized:

***Oxford Placement Test (OPT)* -** In order to check the level of general language proficiency, and homogenize the participants at the beginning of the study, an OPT was used. The items of the OPT test were taken from 'Longman Complete Course for the TOEFL Test' by Philips (2004). All the students sat for this already reliable and valid test. The OPT consisted of three parts: listening comprehension, reading comprehension, grammatical structures. The test had 40 items for which the possible score was 100. Based on the standard of the test itself, and since the items of the test were time-consuming, the allotted time was 100 minutes. This test was selected because it was inexpensive, easy to administer, and easy to score objectively. Further, the grammar section of OPT was expected to evaluate learners' knowledge of sentence structure.

Grammatical Accuracy of Word Classes Pretest and Posttest - In order to measure the participants' level of grammatical accuracy of word classes, a pretest was designed as the TOFEL-based Pre-test and Post-test. The pre-test contained 25 multiple-choice questions focusing on grammar and word classes. To ensure the validity of the test, it was reviewed by two language experts. In addition, to be statistically acceptable, the internal consistency and reliability co-efficient were measured using Cronbach Alpha, bearing evidence to the test's reliability upon piloting($\alpha = 0.86$). The allotted time for this test was 30 minutes. It should be noted here that the

posttest was a parallel form of the pretest.

Instagram Application - Instagram application was utilized to aid for both the students and teachers. Smartphones have different social network applications with wireless connection, for example the application, which is mostly used by Iranian students is Instagram. Using Instagram, the students are able to send picture, video and different types of multimedia materials. It is very easy to use and arrange the contacts automatically. Using Instagram enabled teachers to send correct grammatical word classes so that students can receive more text examples. In addition, students could send their responses to the teacher. It could be a great chance to practice grammatical word classes as homework and check the students' accuracy. In such doing, the researcher created a group including the experimental participants and sent them the task via the Instagram application.

TEFL Students' Perception Questionnaire - In order to examine the perceptions on the part of the Iranian TEFL students, a questionnaire, MacDonough and Shaws' (2013) questionnaire was applied. The questionnaire was based on six main instructional implications with 12 items and 5-point Likert scale was utilized to gather the participants' perceptions.

Table 2

The Perception Questionnaire (MacDonough & Shaw, 2013)

Number of Implication	Questions
(1)	1. What is the role of grammar in the *Instagram Application*? 2. Does the *Instagram Application* integrate grammatical structure with communicative functions?
(2)	3. Are language skills practiced? 4. Does the *Instagram Application* include "authentic" real world language?
(3)	5. Does the *Instagram Application* deal with (1) communicative functions as properties of language, (2) communicative behavior and activities? 6. Does the *Instagram Application* ensure the accuracy of form in relation with context?
(4)	7. Are the stretches of language that TEFL students are asked to deal with sufficient? 8. Is the language practice concerned with the manipulation of sentence structure? 9. Does the *Instagram Application* have "cohesion" and "coherence"?
(5)	10. Do TEFL students have any freedom to create "meanings" and language for themselves? 11. Does the *Instagram Application* highlight the four language skills?
(6)	12. Does the *Instagram Application* imply a focus on both patterns of interaction and linguistic content?

The questionnaire was reviewed by three language experts, and their comments were utilized in the final draft of the questionnaire to ensure its validity. In addition, it was piloted with 15 TEFL students with the same characteristics of the main participants of the students in order to calculate its reliability, thereby rendering .79, which was satisfactory for the current study.

3.3 Procedure

First, in order to homogenize the participants an OPT was administered among 120 TEFL students, and based on the results, 92 students, studying in Islamic Azad University of Najafabad, Isfahan, Iran, were randomly selected. Then, they were divided into two equal experimental and control groups (N=46). The participants in both groups took a pretest. Throughout 20 sessions of instruction within 10 weeks, ten English lessons and example sentences focusing on grammatical accuracy of word classes were presented to the participants in the experimental group through Instagram application. Each picture included two or three grammatical points plus some examples. In other words, students in the experimental group received

grammatical accuracy of word classes in the form of picture sending from their teacher. In control group, the participants were taught via the conventional treatment; i.e. they were given the same grammatical points and examples on the paper and board. After the treatment, the participants in both groups took the posttest. In fact, the researcher administered the pretest and posttest to see the effects of the treatment throughout the study. The interval time between the pre-test and the post-test was 5 weeks which lasted long enough to reduce the effects of the pre-test on the results of the study. At the end, a questionnaire was distributed among the TEFL students in the experimental group to know about their perceptions of using Instagram application for learning grammatical accuracy of word classes. In fact, the questionnaire was distributed among participants of both control and experimental groups.

3.4 Data Analysis Procedures

In the present study, the data was analyzed using SPSS (Statistical Package for the Social Science). To homogenize the participants, the OPT was utilized. To answer the first research question, independent sample t-test was employed. Finally, for the answer of the second question a descriptive analysis of the questionnaire was applied.

4. Results

4.1 The Results of the English Language Proficiency Test

Prior to the main study, an OPT was performed to homogenize the participants of the study. Therefore, all 120 students took part in OPT and students whose scores were between one standard deviation below and above the mean participated in the main study. Table 3 shows the descriptive statistics of the participants' OPT scores.

Table 3

Descriptive Statistics of the Participants' OPT Scores

	N	Minimum	Maximum	Mean	SD
OPT	120	19	53	37.12	9.033
Valid N	120				

As Table 3 displays, overall mean and standard deviation of the initial participants' OPT scores were 37.12 and 9.033 respectively. From these initial participants, 92 language students whose scores were between 35 and 58 were randomly selected. Then, they were divided into two equal groups (N=46), as the control and experimental groups.

4.2 Descriptive Statistics for the Control Group

Table 4 reflects the descriptive statistics for the participants in the control group.

Table 4

The Results of the Participants' Pretest and Posttest Scores in Control Group

	N	Minimum	Maximum	Mean	SD
Pretest in Control G	46	19	51	36.01	9.474
Posttest in Control G	46	20	50	36.88	9.624
Valid N (listwise)	46				

Table 4 displays that the participants' pretest mean score in control group is 36.01 with the standard deviation of 9.474. Regarding the posttest, the participants' mean score is 36.88 with the standard deviation of 9.624.

4.3 Descriptive Statistics for the Experimental Group

Table 5 presents the descriptive statistics for the participants in the experimental group.

Table 5

The Results of the Participants' Pretest and Posttest Scores in the Experimental Group

	N	Minimum	Maximum	Mean	SD
Pretest in Experimental	46	20	50	36.76	9.311
Posttest in Experimental	46	33	50	39.08	9.202
Valid N (listwise)	46				

As Table 5 indicates, the experimental participants' mean score in pretest was 36.76 with the standard deviation of 9.311; whereas in the posttest, experimental group revealed a mean score of 39.08 with the standard deviation of 9.202.

4.4 The Results Regarding the First Research Question and Hypothesis

In order to find the difference between the mean score of the pretest we conducted independent sample t-test. Table 6 reveals the t-test for the pretest results.

Table 6

Independent Sample T-test for Pretest

	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.136	.544	-3.433	45	.001	-1.605	.401	-3.556	-.721
Equal variances not assumed	.121		-3.321	45	.002	-1.007	.451	-2.521	-.707

According to Table 6, there was no significant difference between the performances of the two groups revealing that both groups were homogeneous in terms of their word class accuracies. The normal distribution of the posttest scores in the control and experimental groups was checked by a One-Sample Kolmogorov-Smirnov Test on both sets of scores. Table 7 demonstrates the results of this test.

Table 7

One Sample Kolmogorov-Smirnov Test for Posttest Scores in Two Group

		Post-test in Control Group	Post-test in Experimental Group
N		46	46
Normal Parameters[a,b]	Mean	36.88	39.08
	Std. Deviation	9.624	9.202
Most Extreme Differences	Absolute	.367	.354
	Positive	.367	.284
	Negative	-.233	-.354
Kolmogorov-Smirnov Z		.367	.354
Sig. (2-tailed)		.216	.374

Note. [a]Test distribution is Normal. [b]Calculated from data.

As it is shown in Table 7, p-value for both sets of scores was higher than 0.05. Hence, the scores were normally distributed and the parametric test of independent samples t-test could be appropriate to be used. Therefore, after conducting One Sample Kolmogorov-Smirnov Test, the probable difference between experimental and control group students and traditional was checked by an independent samples t-test. The results have been presented in Table 8.

Table 8

Independent Sample T-test Result

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.156	.631	-3.658	45	.002	-1.667	.456	-3.695	-.861
Equal variances not assumed			-3.658	45.845	.002	-1.667	.456	-2.584	-.749

According to Table 8, the p-value of the Levene's Test for Equal variances was 0.631, which indicated that there was an insignificant difference between the variances of two groups. Therefore, the statistics in the first row should be used. In the first row, the p-value was equal to 0.002, which was lower than 0.05, and revealed that there was a significant difference in grammatical accuracy of word classes between performance of students taught through *Instagram* and that of traditional learning. According to the mean scores of the two groups in post-test in Tables 4 and 5, the experimental group which was taught through Instagram Application outperformed the control group, and thereby the answer to the first question became clear, and the first null hypothesis stating that teaching grammatical accuracy of word classes through Instagram Application had no significant effects on the Iranian TEFL students' grammar accuracy is rejected. The 95% confidence interval for the difference between two means was -3.695, -0.86.In addition, Figure 1, reveals the inferential statistical of the control and experimental groups.

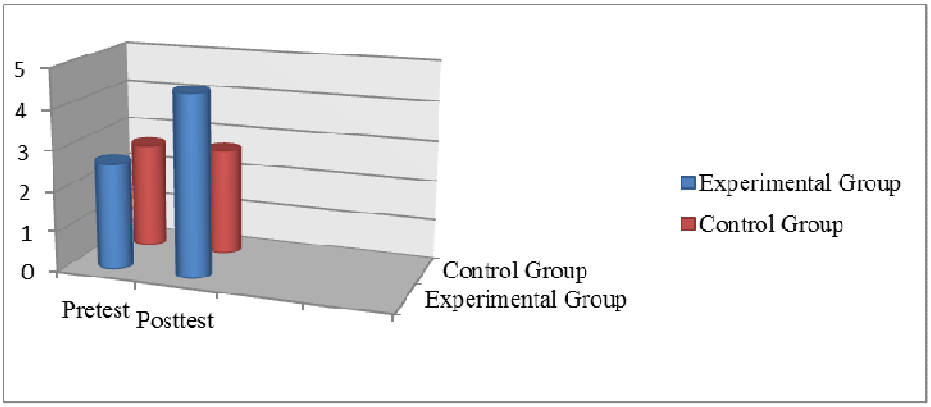

Figure 1. The Analysis of Pretest and Posttest for Two Groups

4.5 Answer to the Second Research Question

In order to answer the second research question, stating that what the Iranian undergraduate TEFL students' perceptions of using Instagram application for learning grammatical accuracy of word classes were, the researcher compared the answers of the experimental to the questionnaire. Table 9 shows the results in the experimental group. General analysis of participants' perceptions in the experimental group on using *Instagram application* for learning grammatical accuracy of word classes indicated that the role of grammar in *Instagram Application* (43.6%), *Instagram Application* ensuring the accuracy of form in relation with context (43.1%), and the *Instagram Application* implying a focus on both patterns of interaction and linguistic content (41.2%), respectively, were assumed by TEFL students. Thus, experimental group had a positive attitude toward utilizing

Instagram Application.

Table 9

Descriptive Results of the Participants Responses in the Experimental Group

No.	Questions	SA	A	N/U	D	Mean	SD
1	What is the role of grammar in the *Instagram Application*?	43.6%	11.9%	31%	10.2%	2.12	1.109
2	Does the Instagram application integrate grammatical structure with communicative functions?	32.4%	21.6%	23.4%	13.82%	2.12	1.681
3	Are language skills practiced?	32.1%	22.5%	17.6%	11.7%	2.14	1.541
4	Does the Instagram *Application* include "authentic" real world language?	21.11%	23.7%	21%	12.7%	2.33	1.212
5	Does the *Instagram Application* deal with (1) communicative functions as properties of language, (2) communicative behavior and activities?	36.8%	11.3%	22.6%	12.1%	2.11	1.408
6	Does the *Instagram Application* ensure the accuracy of form in relation with context?	43.1%	23.8%	21..5%	16.2%	2.55	1.108
7	Are the stretches of language that TEFL students are asked to deal with sufficient?	19.1%	23%	24.2%	12.7%	3.31	1.227
8	Is the language practice concerned with manipulation of sentence structure?	18.13%	24.9%	21.3%	13.2%	3.23	1.877
9	Does the *Instagram Application* have "cohesion" and "coherence"?	25.11%	23.9%	21.8%	14.5%	3.32	1.008
10	Do TEFL students have any freedom to create "meanings" and language for themselves?	16.05%	23.5%	26.2%	14.8%	2.44	1.211
11	Does the *Instagram Application* highlight the four language skills?	18.7%	25.11%	28.1%	14.11%	3.30	1.233
12	Does the *Instagram Application* imply a focus on both patterns of interaction and linguistic content?	41.2%	31.7%	32%	12.8%	3.49	1.760

5. Discussions

According to obtained results, the first research question and hypothesis dealt with whether teaching grammatical word classes through Instagram Application significantly affected Iranian TEFL students' accuracy. To this end, mean scores of pretest and posttest in control and experimental groups were compared with each other. To specify the difference, independent sample t-test was run. The results of posttests showed that in experimental group, in which the participants have received instruction through Instagram Application, there was a significant difference in posttest. To identify the amount of the difference, mean scores were considered. Possible reasons for improvement in experimental group lied in the fact that Instagram Application was motivating, enhances the amount of students' input, and decreases the amount of threatening atmosphere

common in learning environment. Furthermore, through Instagram Application, students learn to utilize supplementary aids properly in other contexts such as their own homes. Furthermore, obtained results showed significant progress in pretest compared to posttest in experimental group. Here, it should be noted that using Instagram Application led to improvement in grammatical accuracy of word classes performance after the instruction. This finding would be to the fact that utilization of MALL along with the advent of new educational technology can improve grammatical accuracy of word classes among the TEFL students, confirming the results of Wu, Chu, and Danan (2012), who focused on the helpfulness of mobile learning system design, and exposed the positive perspectives of MALL generally developing from the survey and experimental studies.

Therefore, in line with the points proposed at the literature section, this study acknowledges the pedagogical advantages of MALL and justifies its expanding extent in regard to what Duman, Orhon, and Gedik (2014) named as the general elements of mobile phones like movability, social interactivity and connectivity. They also argued that most MALL research was without any theoretical framework, accordingly, stated the integration of MALL for developing language skills, especially oral skill was of paramount importance.

A number of researchers (e.g. Hodson, 2008, Sun & Cheng, 2000) have conducted various studies on the utilization of student improvements of various forms as a theoretically efficient means of language acquiring, with or without the use of technology. Mobile technology has a key role in instructional programs, and in enhancing the language development of second or foreign language learners around the world (Burston, 2015). Furthermore, Wharton (2000) maintains that students are practiced at utilizing the MALL, but are less experienced at benefiting MALL. In terms of educational efficacy, more than half of TEFL students are already using MALL to get improve their language learning process (Ducate & Lomicka, 2013). It should be noted here that students' lack of interest in cooperating with the instructor via MALL may show a preference for face-to-face interaction once they are studying, or it may reveal that students' did not have positive attitudes towards education. This finding was also confirmed based on the results of Warschauer and Healey (1998).

Generally speaking, concerning the MALL, Iranian TEFL students are not yet using MALL for educational goals. We assumed that this may be due to the small amount of university instructors in Iran that present information via the MALL of their courses. According to Ring (2001), MALL instruction should be divided into smaller parts, which can be easily read on mobile screens. In addition, his results showed that students had a positive attitude of such small parts. Thus, in instructions where offer MALL, redesigning is essential if they are to be accessible to mobile devices.

Concerning the second research question, overall data analysis revealed that TEFL undergraduate students in experimental group were satisfied with the utilization of Mobile Application in their instructional programs. It should be noted that this finding might be due to the fact that most of the TEFL students have the mobile phones, and know how to utilize during their educational activities.

6. Conclusion

Language students arrive in educational settings with a number of English language weaknesses, such as comprehension difficulty, limited vocabulary capacity, reading problems, weak grammar and flawed conversational skills. No doubt, technology in common and mobile phones in particular can help to eliminate such limitations. This is because of the fact that in mobile phones individuals utilize language so acutely in revealing their cultural aspect. Language plays an essential role in integrating and defining the different forms of visual and sound information. Based on the findings of the current study, it was concluded that utilizing Instagram application had a positively significant effect on undergraduate TEFL students' learning concerning the grammatical accuracy of word classes. In addition, it was revealed that undergraduate TEFL students had a positive attitude toward utilizing MALL. So as with Iranian undergraduate TEFL students can acquire grammatical accuracy of word classes by Instagram application as one of the contextual assistances.

It is also concluded that because traditional assessment (e.g. paper-and-pencil assessments) will be sooner or

later replaced by mobile teaching methods, TEFL students should be familiarized through mobile to cope with the new technologies in the area of ELT. Furthermore, for the implementation and development of effective pedagogy in language teaching programs, there is a dire need 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. As noted by 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 instructors. They should be aware of the fact that grammar instruction integrated with mobile phones may serve as an influential teaching material to help instructors in assisting students to reach their full potential in language skill. In addition, instructors must not be afraid to be replaced by technology, as it is the instructors who decide the amount of control the educational technology will have. Therefore, according to Brierley and Kemble (1997), 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.

Another implication of the present research addresses Iranian TEFL students. As mentioned earlier, grammatical aspect of language is highly essential for TEFL students pursuing their studies. They should adopt the innovative technologies. In addition, they should accept the fact that mobile technology will take the place of traditional instruction. The final implication of this research is for educational mobile designers. They must take into considerations the findings of such research in delineating the most fruitful language elements improving the students' performance. In addition, the next generation can use the instructional mobile programs to meet their pedagogical needs. They also should consider the students' level of language proficiency.

6.2 Limitations of the Study

It was necessary for the students and teachers to be familiar with mobile-assisted language instruction, and Instagram application. Thus, generalizations to other populations were restricted. The need for students to have access to a technology rich environment, which included a distance network, were limited the generalizations of the study. The second limitation lied in the fact that only a limited sample of Iranian Undergraduate TEFL Students has been selected. Therefore, the results of the study in terms of generalizability should be taken into account cautiously. The third limitation was that the current study only focused on Iranian undergraduate TEFL students Thus, no doubt, further research is needed to be conducted on the other proficiency levels (i.e. intermediate and advanced).

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