Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and Mobile Learning Contexts

Elahe Naseri ¹, Farzaneh khodabandeh ²*

¹ MD Department of Linguistics and Language Teaching, Payame Noor University, Tehran, Iran
² Assistant Professor Department of Linguistics and language teaching, Payame Noor University, Tehran, Iran

Received: 2019/02/25 Accepted: 2019/04/06

Abstract: This study investigated the impact of audio-visual input enhancement teaching techniques on improving English as Foreign Language (EFL) learners’ collocation learning as well as their accuracy concerning collocation use in narrative writing. In addition, it compared the impact and efficiency of audio-visual input enhancement in two learning contexts, namely traditional and mobile learning contexts. First, 120 homogenous intermediate EFL learners were randomly divided into four groups, two experimental and two comparison groups. Next, two pre-tests, a collocation and a paragraph writing test, were administered. The experimental groups received enhanced target collocations through input enhancement teaching techniques while in the comparison groups the “unenhanced” collocations were taught through conventional simple vocabulary teaching method. After the treatment sessions, the researcher administered two post-tests including a collocation and a paragraph writing. As the data analysis suggested, with regards to the first research purpose, audio-visual input enhancement positively affected EFL learners’ collocation learning and enhanced their accuracy concerning collocation use in narrative writing. Regarding the second purpose of the study, the results revealed that, in comparison to traditional learning context, audio-visual input enhancement teaching techniques were significantly effective in mobile learning context in terms of collocation learning. The efficiency of audio-visual input enhancement teaching techniques was not significantly different between the experimental groups in the two learning contexts in terms of enhancing EFL learners’ accuracy concerning collocation use. The findings of this study can create awareness for second language teachers and learners about the critical and beneficial role of input enhancement and mobile assisted language learning in successful language acquisition and learning.

Keywords: Collocation Knowledge, Input Enhancement, Narrative Writing, Traditional Learning, Mobile Learning.
Introduction

During the last 50 years, researchers have tended to discuss collocation from both theoretical and pedagogical perspectives (Kiaei, Heravi Moghadam, & Moheb Hosseini, 2013). The theoretical studies of collocation can be classified into three perspectives which are lexical (e.g. Mitchell, 1971; Sinclair, 1991), syntactic (e.g. Nation, 2001) and semantic (e.g. Howarth, 1998; Lewis, 1997; Nation, 2001), whereas the pedagogical studies are those empirical studies with different pedagogical purposes such as measuring learners' collocation knowledge, discovering common collocation errors and recommending new teaching techniques for collocation teaching and learning (Kiaei, et al. 2013).

Collocation has been known as a vital part of instructional materials in every language learning classes because it plays an important role in learner's inter language development (Wray, 2002). As Sung (2003) has stated, sufficient knowledge of collocation is one of the essential parts of language proficiency, having positive role in improving language learners' skills including speaking, writing, reading and listening.

The crucial role which collocation knowledge plays in language learners' success and improvement in terms of accuracy and fluency has been mentioned by some scholars such as, Hill (2000), Hornby (2000) and Webb, Newton and Chang (2013). Collocation knowledge is known as one of the most important criterion to obtain native like accuracy and fluency (Nation, 2001). Lack of this knowledge has been introduced as an important obstacle to the attainment of native-like fluency and accuracy (Nation, 2001). Teaching collocation can improve not only learners' lexical competence but also their grammatical proficiency. Collocations should be taught to improve second language learners' competence as well as their accuracy and fluency (Wray, 2002). One of the beneficial ways to bring learners up to native speakers’ level is not teaching them more words but teaching them how to combine words which they already probably know (Lewis, 2000). Conzett (2000) has mentioned that efficient language acquisition demands collocation knowledge.

Different teaching methods have been suggested for collocation teaching. For example, Nation (2001) has suggested that the first and most important step in collocation teaching is to draw learners' attention to their existence. In Second Language Acquisition (SLA) field of study there is a question that is focused on ways and extend of drawing language learners' attention towards a certain form of target language. The question asks that in what ways and to what extend a language teacher should draw learners’ attention towards a target form? This question can be answered based on the concept of noticing-based tasks (Schmidt, 1990) and
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and... 

consciousness raising activities (Sharwood Smith, 1981). The vital role which noticing plays in the process of language acquisition and learning has been, for the first time, discovered and stated through the concept of noticing hypothesis. Noticing has turned to be known as the first step for language learning and acquisition, and also to be the initial factor for helping language learners to attend their learning process. Noticing can be actually obtained by proper attention drawing activities which are, in fact, the central subject of consciousness raising activities or alternatively input enhancement (Nation, 2001). Input enhancement refers to the same concept as consciousness raising activities, and is known to introduce a set of teaching techniques and activities which will guide second language teachers to raise learners' consciousness with respect to a certain language form and draw their attention towards a certain form of the target language. Presentation of instructional materials in a way that draws second language learners' attention to the target forms of second language is called consciousness raising or alternatively input enhancement (Nation, 2001).

Throughout time, the effect of teaching techniques introduced by consciousness raising and input enhancement have been investigated by some scholars and researchers on different aspects of language learning in classroom learning context (Bakori, 2010). Recent technological developments and new tendencies in the use of technology in teaching and learning process have led to changes in learning forms from traditional classroom learning context (T-learning) to Electronic learning (E-learning), Ubiquitous learning (U-learning) and Mobile learning (M-learning). Among the new forms of learning context, M-learning is known to be more flexible and effective because it overcomes time and space restrictions. Actually, M-learning is the use of omnipresent handheld technologies with the purpose of facilitating and extending learners’ access to teaching materials (Permanand & Vanikaloo, 2012). M-learning has actually offered enormous potential to promote collaborative learning, to engage learners with content and also to be used in situations where learners are geographically dispersed (Yafei & Osman, 2016). In the last recent years, M-learning seems to be favored by all learners in different majors. It actually has provided a stress free learning environment which can be enhanced by specially designed user friendly interface. M-learning is known to be a cost efficient technique which enables learners to get knowledge without restrictions and limitations of traditional education system (Alalwan, Alzahrani, & Sarrab, 2013; Douglas, Matt, & Michael, 2008). As Alibakhshi and Mohammadi (2016) has stated, integration of modern mobile technology in the field of education in general and second language learning in particular has changed the way learners learn. Education and learning
have become more interesting, interactive, flexible and widely available. Particular features of mobile devices allow learners to easily access their learning materials at any time and place; it also helps second language learners in overcoming many problems such as limited language practice and the lack of language exposure (Yafei & Osman, 2016).

A new generation of learners has appeared in the last recent years, called the Net Generation, who have different characteristics from that of previous ones and these characteristics can cause some challenges in their education, one of which is the challenge of using technology in education (Worley, 2014). Due to the fact that technology is changing and improving very fast, in order to meet learners' needs, education system and academicians must also be technologically prepared. New technologies and social media can be helpful in providing opportunities in order to promote the quality and effectiveness of foreign language teaching and learning (Isisag, 2012). Valuable teaching techniques such as input enhancement must become updated based on recent technological changes in order to be able to respond new generation of learners' needs and expectations.

In spite of the importance of collocation knowledge for English learners, huge number of difficulties in collocation teaching, learning, comprehension and production are observed among EFL learners (Adelian, Nemati & Fumani 2015). “Any analysis of students' speech or writing reveals a lack of collocation competence” (Hill, 2000, p. 49). Furthermore, Hill (2000) states that students with good ideas often loose marks because they do not know the most important collocations of a key word that is central to what they are writing about. One of the reasons for witnessing unusual pieces of writing among EFL learners is that they often use inappropriate word combinations in their writings. According to Fahim and Vaezi (2011), lack of collocation knowledge not only has caused learners to have errors and problems in their oral fluency, but also it has weakened their listening comprehension and reading speed.

In spite of findings of error analysis studies and introducing different methods and games for collocation teaching, teachers are faced with many cases in which advanced language learners use collocations inappropriately and wrongly (Lewis, 2000). In addition to learners' problems regarding collocation learning, second language teachers also have difficulties in choosing the most effective teaching method or technique for collocation teaching (Fahim & Vaezi, 2011).

Therefore, with regards to the vital role of collocation knowledge in successful language learning, the importance of input enhancement teaching techniques, and critical role of M-learning context, the present study intends to first investigate the impact of audio-visual
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and Mobile Learning Contexts

input enhancement teaching techniques on improving Iranian EFL learners’ collocation knowledge and their accuracy concerning collocation use in narrative writing. And second to compare the impact and efficiency of audio-visual input enhancement teaching techniques in T-learning and M-learning contexts on learners’ collocation knowledge and their accurate use of collocation in narrative writing.

With respect to the mentioned purposes of the present study, the following research questions were formulated:

Q1: Do audio-visual input enhancement teaching techniques improve intermediate EFL learners’ collocation learning and their accuracy concerning collocation use in narrative writing in traditional learning context?

Q2: Do audio-visual input enhancement teaching techniques improve intermediate EFL learners’ collocation learning and their accuracy concerning collocation use in narrative writing in mobile learning context?

Q3: Is there any significant difference between the impact of audio-visual input enhancement teaching techniques on the improvement of EFL learners’ collocation learning and their accuracy concerning collocation use in narrative writing in traditional and mobile learning contexts?

Literature Review

The purpose of this section is to review the theoretical foundation and empirical studies which are related to the subject of the present study. In order to provide a precise review of the literature, this section is divided into three main parts, the first part reviews previous studies with respect to collocation, the second part focuses on previous research studies with respect to input enhancement, and the third part reviews related studies in field of M-learning.

Collocation

In theoretical definitions of collocations, it has been stated that collocations have characteristics involved in lexis, syntax and semantics (Kiaei, et al., 2013). From the lexical perspective collocations are known as lexical items co-occurring repeatedly in a language and are prefabricated in nature. From the syntactic perspective, collocations are defined as structured word phrases which involved grammatical patterns and are syntactically restricted. From the semantic perspective, collocations are defined as language chunks obeying semantic restrictions to some degree.
Studies focusing on collocation can be divided into three main categories. First, there are studies which have focused on error analysis. For instance, Abdul Ridha and Al-Riyahi (2011) in an error analysis study analyzed 157 learners’ lexical collocation errors. The results indicated that most of the learners’ errors were originated from transferring first language equivalent structures into second language structures. Hashemi, Aziznezhad and Dravishi (2012) intended to discover different types of collocation errors, frequency of collocation errors, and their sources among a group of EFL learners. The researchers discovered some sources for collocation errors such as interlingual and intralingual transfer, overgeneralization, approximation, ignorance of rules of restriction and use of synonym.

The second group of studies are those with the purpose of improving collocation teaching methods and techniques. Among these studies, Wei’s (1999) was one of the first attempts which tried to examine the effectiveness of explicit teaching technique on EFL learners’ collocation learning and indicated that learners in the experimental group who received explicit collocation instruction could successfully outperform the learners in the comparison group.

Fahim and Vaezi (2011) explored the effect of visual input enhancement on the acquisition of lexical collocations with a focus on verb-noun type of collocation. Results manifested the fact that both conventional explicit teaching method and input enhancement teaching techniques were beneficial for participants. In a similar study, Goudarzi and Raouf Moini (2012) aimed at comparing the effect of enhanced input and first language glossed forms of collocations on collocation learning and retention among a group of upper-intermediate EFL learners. It was concluded that first language glossed collocation group could successfully and significantly outperform both the enhanced and non-enhanced groups.

The third group of collocation researchers are those who investigated the effect of learners’ collocation knowledge on other language skills, fluency, and proficiency (e.g. Kiaei, et al., 2013; Tekingul, 2013). The results of these studies were indicative of positive and crucial role of collocation knowledge in improving EFL learners’ reading and listening comprehension as well as their native-like fluency in speaking. The impact of collocation knowledge on successful performance in a multiple choice test has been investigated by Adelian, Nemati and Fumani (2015). The focus of the tests was on correct forms of collocations produced by learners. Researchers discovered that learners’ collocation knowledge has a statistically significant impact on their performance in the multiple choice test.
Input Enhancement

Input enhancement was introduced by Sharwood Smith in 1991 in order to replace the term of ‘consciousness raising’. There are two types of positive and negative input enhancement. Positive input enhancement refers to the techniques by which correct forms of a target language are made more noticeable in the input provided for learners and negative input enhancement refers to the techniques by which learners’ errors in their written or spoken language production are made more noticeable. In addition, input enhancement techniques are divided into two types: auditory and visual techniques. Visual input enhancement is also termed as textual and typography techniques. Teaching methods and techniques such as consciousness raising and input enhancement are actually the result of acquisition theories related to teaching of grammar which have debated the form focused and traditional teaching methods and techniques such as Grammar Translation Method (GTM) in SLA (Robinson, 2003). These acquisition theories have provided evidences, first, to prove that traditional teaching methods will not result in successful language learning, and second to reveal the importance and efficiency of sub-consciousness and consciousness in second language acquisition and learning process (Ellis, 1985).

Based on Noticing Hypothesis, an initial predecessor to language acquisition is the act of noticing (Schmidt, 1995). Noticing is considered as the required condition for changing input into intake. Noticing was first introduced by Schmidt (1990) under the title of Noticing Hypothesis, Schmidt considered noticing as an initial condition for the interpolation of a language form or structure into learner’s language. Robinson (2003) defined noticing as that part of input or information which, after receiving a particular attention, enters into learners’ working short term memory.

In 1981, Sharwood Smith introduced the term consciousness raising which can be defined as raising learners' conscious awareness of a particular linguistic form. He also stated that consciousness raising of a linguistic form can play a crucial role in the development of acquired and implicit knowledge. Walsh (2005) affirmed that consciousness raising can be useful in the way that it can draw learners’ attention to some particular language forms which will enable learners to form initial hypothesis about meaning-form relationships and to do conscious practice which will help learners in building implicit knowledge.

Consciousness raising can help learners to enter into natural acquisition of the language forms by enabling them to notice target features in further language input (Walsh, 2005). In fact, the aim of a consciousness raising activity is to foster and encourage the noticing to
happen in the process of language learning, as Sharwood Smith (1981) said consciousness raising has been designed to raise learner’s language awareness to notice something about the language that they may not notice on their own.

In 1991, Sharwood Smith suggested another term as input enhancement in order to replace the term of consciousness raising and defined it as the process by which language input can become more noticeable to learners. In one of his studies, he presented consciousness raising prior to input enhancement, and believed that most of the consequences and problems of form focused approaches in second and foreign language learning can be eliminated and solved by consciousness raising and input enhancement activities.

In the last few decades, some scholars of second language acquisition have focused on the role of input in language learning (e.g. Abbasian & Yekani, 2014; Afraz & Ebrahimi, 2017; Geranmayeh & Vahdani, 2013; Leowan & Inceoglu, 2016; Mayen, 2013). The effectiveness of input enhancement has been examined on learning compliment giving speech, in a study conducted by Dastjerdi and Farshid (2011), who concluded that input enhancement teaching techniques can have beneficial effect on drawing learners’ attention towards speech acts and leading them to get involved in recognizing speech acts of target language. Seyedtajaddini (2014) was another researcher who was interested in studying the role of input enhancement in second language learning. He examined the effect of audio input enhancement on grammar learning among EFL learners. The analysis of collected data was indicative of the fact that audio input enhancement had a more significant effect on high proficiency level learners rather than low proficiency level learners.

Another study that examined the effect of input enhancement on learning English conditional structure is the study done by Rashtchi and Gharanli (2010). The researchers provided enhanced input in the form of reading texts containing examples of conditional sentences which were enhanced by typographical techniques. Experimental group received the enhanced texts and the comparison group received the same reading texts with no enhancement of conditional sentences. The results proved that input enhancement had a significant effect on learning the target structure due to importance of listening skill some researchers such as Geranmaye and Vahdani (2013) measured the effect of input enhancement techniques on listening comprehension ability of EFL learners. The results indicated that learners’ listening comprehension ability improves when they are provided with visual input enhancement. In the study managed by Bakori (2010), the effect of textual input enhancement was examined on the
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and …

learning of passive voice in English. The results manifested that input enhancement lead to learners' better production of passive voice in the tasks.

**Mobile Learning**

According to Wanger and Wilson (2005), there is a growing use of mobile technology in language teaching and learning which have had a noticeable impact on the process of language teaching and learning all around the world. One of the studies which explored the impact of M-learning and mobile applications in second language learning processes is the study done by Yafei and Osman (2016). The authors sought to investigate the impact of M-learning context on both vocabulary learning and retention. The researchers concluded that employing mobile applications and M-learning context were beneficial in both vocabulary learning and retention among EFL learners.

In another study, Ashiyan (2016) investigated the impact of WhatsApp as one of the popular mobile applications on collocation learning and its retention. This study manifested the positive impact of WhatsApp as a mobile application. Effectiveness of Telegram as a mobile application on EFL learners’ vocabulary knowledge and attitude has been investigated among a group of EFL learners by Zarei, Heidari Darani and Ameri-Golestan (2017). The findings of this study indicated the effectiveness of using telegram on vocabulary learning among EFL learners. Similarly, Golshan (2017) designed an experimental research with a focus on the impact of Telegram application on vocabulary learning. The experimental group who received vocabulary instruction via their mobile phones could successfully outperform the control group in terms of vocabulary learning. Levy and Kennedy (2005) conducted a research project in which an Italian course was performed via SMS learning. The results showed that learners who passed the course via SMS learning were better in their performance and also were motivated for more learning. The effect of M-learning context on vocabulary learning was investigated by Thornton and Houser (2005). The results lead the researchers to find out that using M-learning context for vocabulary teaching led learners to learn more words and to have a vocabulary intake with better quality in comparison to the learners receiving vocabulary instruction in simple vocabulary teaching methods. In another study Taleb, Ahmadi, and Musavi (2015) investigated the impact of M-learning context on increasing learners' motivation and their participation in the learning process. The findings indicated that M-learning context had direct positive impact on increasing the learners' motivation.
In spite of the fact that the effect of input enhancement has been examined on different aspects of second language learning including certain grammatical forms, vocabulary learning and collocations, some shortcomings are noticed among the previous research studies. One of the shortcomings is that the previous studies have focused only on receptive skills and ignored the productive skills such as writing. In addition, in the previous studies on input enhancement, reading passages have been used as the sole source for enhanced input and typographical techniques as the sole enhancement techniques. Another shortcoming is their approach towards collocation which is similar to simple vocabulary, because all the pre-tests and post-tests administrated in these studies were just collocation tests in the form of a vocabulary test such as fill in the blank and matching pairs which actually does not evaluate learners' ability in using and producing collocations in a context. Therefore, in order to overcome the shortcomings of the previous studies and fill the gaps, the present study explored learners' accuracy concerning collocation reception and production as the result of using auditory and visually enhancement techniques.

Moreover, despite exploring the effect of mobile technologies and applications on vocabulary learning in the previous studies (e.g. Ashiya, 2016; Golshan, 2017; Yafei & Osman, 2016; Zarei, et al, 2017), the similar aspect in all of them is the use of simple vocabulary teaching methods. Among all the previous research studies, one cannot find a study which has presented or administered input enhancement teaching techniques in a new learning context such as M-learning context. Consequently, by integrating input enhancement teaching techniques into M-learning context and exploring their impact on the improvement of EFL learners' reception and production, this study aims at filling the gap.

**Method**

**The Design of the Study**

Since there was no true randomization in the present study, it was a quasi-experimental study. Considering the cited purposes and research questions of this study, the independent variable in this study was audio-visual input enhancement teaching techniques, and the dependent variables were collocation knowledge, and learners' accuracy concerning collocation use in their writing. In addition, the moderator variable under study here was the context of learning, namely T-learning and M-learning.
Participants
A total of 150 Intermediate EFL learners aged between 17 to 31 were initially selected. In order to have homogenous samples, they were given an Oxford Placement Test (OPT). The researcher selected 120 of learners who could successfully obtain the band score of the OPT (from 30 to 45) as intermediate learners. All of the subjects were female with Farsi as their native language. The homogenized subjects were randomly divided into four equal groups containing 30 subjects (i.e., group A: experimental group, receiving enhanced input in T-learning context; group B: experimental group, receiving enhanced input in M-learning context; group C: comparison group, receiving “unenhanced” input in T-learning context; and D: comparison group receiving “unenhanced” input in M-learning context).

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

Teaching Material
The teaching material used in the present study was researcher-made materials. For the present study, 15 adjective-noun and 15 verb-noun collocations on two topics of nature description and crime were selected from the book English collocations In Use, written by Michael McCarthy and Felicity O’Dell (2017).

In order to provide proper instructional materials for the subjects, the researcher took three steps. First, she extracted standard native sentences from Longman Dictionary, fifth edition and Oxford Collocation Dictionary for Students of English, second edition. For each collocation, one standard native sentence was selected and used to provide instructional flash cards and audio tracks. The second step was to provide the enhanced and “unenhanced” audio instructional material for which the researcher asked a native-like speaker to read the selected sentences and record his voice. The sentences were read and recorded two times; once the sentences were read normally and once by using auditory input enhancement techniques. The auditory input enhancement techniques used in this study were raising intonation, repetition, and higher pitch as well as using exaggerated stress. The third and final step was providing “unenhanced” and visually enhanced instructional materials by the use of visual input enhancement techniques. The selected sentences were written on separate cards in two series,
the first of which were written normally with no enhancement technique, and in the second were enhanced by techniques of underlying, different colors, and boldfacing.

**The Collocation and Writing Pre-Test**

The collocation pretest was developed based on the tests and exercises in the book *English Collocations in Use* written by Michael McCarthy and Felicity O'Dell (2017) as well as the collocation tests in *Longman Dictionary of Contemporary English*, fifth edition. The pre-test included 15 multiple choice items and 15 cloze sentences with a focus on specified adjective-noun and verb-noun collocations (Appendix 1). The validity of the collocation test was established through seeking advice and comments from two English language teaching professionals. This could account for the content validity of the test (Dornyei 2007). In addition, the reliability of the test was verified through piloting it. To this end, 20 subjects whose characteristics were similar to the main subjects but were excluded from the main study were asked to sit for the collocation test. The results of the KR-21 formula showed that the test had 0.79 reliability which is high enough. As Hatch and Lazaraton (1991) have mentioned, the range of 0.65-0.95 is the acceptable range for reliability.

For the purpose of evaluating subjects’ accuracy concerning collocation use in their writing, they were requested to write a piece of narrative writing as a pre-test before administration of the treatment. In order to direct the subjects to use the target collocations in their writings, a particular subject was given to them (i.e. narrating a short story about a trip they had to a natural resort) and they were conscious to use collocations with regards to the writing subject.

**The Post-Tests**

After the completion of treatment sessions, another collocation test including the same specified collocations as the pre-test was also designed based on the tests and exercises in the same sources as the pretest. The collocation post-test also included 15 multiple choice items and 15 cloze sentences (Appendix 2). However, in order to avoid test practice effect (Bachman, 1990), the researcher jumbled the order of the items in the post-test. Regarding the validity and reliability of the post-test, the same process as for the collocation pre-test was followed, the results of which established these two indexes. The collocation posttest had 0.87 reliability.
In addition to the collocation test for the purpose of measuring and evaluating subjects' accuracy concerning collocation use after treatment sessions, another narrative writing was taken from the subjects as a post-test. A particular subject (i.e. write a narrative summary from a crime movie you have watched), which is comparable in terms of collocation use to the pretest, was given to subjects in order to direct them to use specific collocations.

**Procedure**

The procedure of this study initiated with the selection of 120 homogenous language learners. The second procedure was to administer the pretests. The following procedure was the administration of treatment sessions. The whole instruction sessions in this study were 12 sessions and lasted for four weeks. Every week three sessions were held, and each treatment session lasted for 105 minutes. A short part of the class time was allocated to teaching collocations. The first session was used for taking the pre-tests. Collocations were taught in ten sessions, each session the researcher who was also the teacher in all of the four groups, taught three particular collocations. All four groups of the present study received the same list of collocations. The comparison groups received collocations through traditional and simple vocabulary teaching method in two different learning contexts including T-learning and M-learning contexts, while the experimental groups received collocations which were audio-visually enhanced through input enhancement teaching techniques and attention drawing in the two different learning contexts including T-learning and M-learning contexts.

The subjects of comparison group in T-learning context were provided with “unenhanced” images of flash cards and audio tracks of three collocations each session. The researcher presented the images of flash cards via a projector in the class and played the audio track of each flash card simultaneously when it was being presented to the subjects. After the presentation of flash cards and audio tracks, the researcher explained and taught the target collocations through a simple vocabulary teaching method to the subjects and asked them to pose their questions if there were any. Then, they were asked to do the exercises of particular collocations taught. As the last step in the class, the subjects shared their answers with each other while they were corrected by the researcher.

The experimental group in T-learning context were drawn to the images of flash cards and audio tracks in which collocations were audio-visually enhanced. In this group, the subjects were exposed to the audio-visually enhanced collocations while their attention was drawn towards the collocations by audio-visual input enhancement teaching techniques. After
input exposure, the subjects had time to ask their questions and then the researcher asked them to do the exercises on collocations taught. The exercises were done and the answers were shared by the subjects while the researcher corrected the subjects' answers wherever any mistake arose.

The subjects in the comparison group in M-learning context were required to be online in WhatsApp group for receiving their instruction. The same “unenhanced” input taught to the comparison T-learning group was presented as the input to the comparison group in M-learning context. In this group, in order to teach the target forms, the researcher sent the images of flash cards to the WhatsApp group, each being followed by its related audio track. The subjects were required to read the sentences on flash cards carefully and then listen to the following audio tracks. After the presentation of the input, the researcher sent her own explanation of the collocations via a voice message to the WhatsApp group. Also, in this group, the subjects had the chance to pose their questions by writing a text message or sending a voice one, while the researcher answered their questions by sending voice messages. In order to do the exercises in the comparison M-learning group, the researcher had extracted and typed the same exercises which were done in other groups. The subjects were asked to present their answers one by one in the group and after that the researcher sent the correct answers for all the members in order to verify their own answers.

For providing and having proper instruction in the experimental group in M-learning context, the researcher asked the subjects to get online in the WhatsApp group. The same input was presented to this group. The input included audio-visually enhanced collocations. The researcher sent the images of flash cards in which the collocations were visually enhanced, followed by the related audio tracks in which collocations were auditory enhanced. In this group subjects received enhanced input in addition to the researchers' voice message explaining the enhanced collocations. What subjects had to do in this group was the same as the comparison M-learning group; they read the sentences on each flash card and listened to its following audio track. When the exercises were sent to the group by the researcher, the subjects had time to answer the exercises and share their answers with each other in the group. As the last step of instruction, the researcher checked the subjects' answers and sent the correct answers for them to check their answers with. As the last procedure of this study, the posttests were administered for all groups of the subjects.
Lesson Sample
For better understanding of how the treatment in this study was carried out, two samples of the lesson presented in comparison and experimental groups are provided here. As shown below in Figure 3.1, for the comparison groups, the collocation part of the sentence is written normally with no enhancement, whereas as Figure 3.2 indicates, for experimental groups, the collocation part of the sentence is visually enhanced (boldfaced, colored, and underlined).

![Figure 3.1. Lesson Sample of Comparison Groups](image1)

![Figure 3.2. Lesson sample of Experimental Groups](image2)

Data Analysis
The data collected in this study were then submitted to data analysis. As the nature of the present study was quantitative, the data were analyzed via the employment of one way ANOVA, post-hoc Scheffe’s tests and assumptions of normality.

Results
Testing Normality of Data
The normality of the data was established via employment of Skewedness and Kurtosis formula. Since the absolute values of the ratios of skewedness and kurtosis over their
standard errors were lower than 1.96, it was claimed that the assumption of normality was retained. The assumption of homogeneity of variances will be reported when discussing the results of the one-way ANOVAs.

**Inter-Rater Reliability; Pretest and Posttest of Writing**

The participants’ performance on the writing pre- and posttests were rated by two raters. Pearson correlations were run to probe their inter-rater reliability. Based on the results, it was concluded that there were significant agreements between the two raters on the pretest \( r(118) = .871 \) representing a large effect size, \( p < .05 \) and posttest \( r(118) = .837 \) representing a large effect size, \( p < .05 \) of accuracy in collocations use in narrative writing.

During rating the writings, the raters put focus on the collocations leaving out other parts of the writing. As a result, they only rated the collocations based on whether they were used correctly and appropriately or not.

**Reception Pretest**

Table 1 displays the descriptive statistics for the four groups on the pretest of collocation.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental T</td>
<td>30</td>
<td>12.77</td>
<td>5.412</td>
<td>.988</td>
<td>10.75</td>
<td>14.79</td>
<td></td>
</tr>
<tr>
<td>Experimental M</td>
<td>30</td>
<td>13.63</td>
<td>6.589</td>
<td>1.203</td>
<td>11.17</td>
<td>16.09</td>
<td></td>
</tr>
<tr>
<td>Comparison T</td>
<td>30</td>
<td>12.67</td>
<td>3.708</td>
<td>.677</td>
<td>11.28</td>
<td>14.05</td>
<td></td>
</tr>
<tr>
<td>Comparison M</td>
<td>30</td>
<td>12.43</td>
<td>6.146</td>
<td>1.122</td>
<td>10.14</td>
<td>14.73</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>12.88</td>
<td>5.521</td>
<td>.504</td>
<td>11.88</td>
<td>13.87</td>
<td></td>
</tr>
</tbody>
</table>

The results indicated that the experimental tradition learning \( (M = 12.77, \ SD = 5.41) \), experimental mobile learning \( (M = 13.63, \ SD = 6.58) \), comparison traditional learning \( (M = 12.67, \ SD = 3.70) \) and comparison mobile learning \( (M = 12.43, \ SD = 6.14) \) groups had almost the same means on the pretest of collocations.

Table 2 displays the main results of one-way ANOVA.

<table>
<thead>
<tr>
<th></th>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>.204</td>
<td>3</td>
<td>62.653</td>
<td>.893</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>.266</td>
<td>3</td>
<td>102.678</td>
<td>.850</td>
</tr>
</tbody>
</table>
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and...

The results (F Welch = .204, p > .05) (F Brown-Forsythe = .266, p > .05) manifested that there were not any significant differences between the means of the four groups on the pretest of collocation. Thus, it can be claimed that the four groups were homogenous in terms of their knowledge of collocations prior to the main study.

Production Pretests

Table 3 displays the descriptive statistics for the four groups on the pretest of writing.

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Experimental T</td>
<td>30</td>
<td>9.73</td>
<td>4.346</td>
<td>.794</td>
</tr>
<tr>
<td>Experimental M</td>
<td>30</td>
<td>10.10</td>
<td>4.286</td>
<td>.782</td>
</tr>
<tr>
<td>Comparison T</td>
<td>30</td>
<td>9.93</td>
<td>4.034</td>
<td>.736</td>
</tr>
<tr>
<td>Comparison M</td>
<td>30</td>
<td>8.53</td>
<td>3.972</td>
<td>.725</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>9.58</td>
<td>4.156</td>
<td>.379</td>
</tr>
</tbody>
</table>

The results indicated that the experimental tradition learning (M = 9.73, SD = 4.34), experimental mobile learning (M = 10.10, SD = 4.28), comparison traditional learning (M = 9.93, SD = 4.03) and comparison mobile learning (M = 8.53, SD = 3.97) groups had almost the same means on the pretest of writing.

Table 4 displays the main results of one-way ANOVA.

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>45.425</td>
<td>3</td>
<td>15.142</td>
<td>.874</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2009.900</td>
<td>116</td>
<td>17.327</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2055.325</td>
<td>119</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results (F (3, 116) = .874, p > .05, $\omega^2 = .003$ representing a weak effect size) indicated that there were not any significant differences among the means of the four groups on the pretest of writing. Thus, it can be claimed that the four groups were homogenous in terms of their accuracy concerning collocation use in narrative writing prior to the main study.

For further clarity, the writing pretest of one of the subjects in each group is presented below. The correct collocations have been italicized, while the wrong ones have been underlined.
Reception Posttest

Table 5 displays the descriptive statistics for the four groups on the posttest of collocations.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Experimental T</td>
<td>30</td>
<td>19.97</td>
<td>4.767</td>
<td>.870</td>
<td>18.19</td>
</tr>
<tr>
<td>Experimental M</td>
<td>30</td>
<td>26.07</td>
<td>2.864</td>
<td>.523</td>
<td>25.00</td>
</tr>
<tr>
<td>Comparison T</td>
<td>30</td>
<td>13.37</td>
<td>5.372</td>
<td>.981</td>
<td>11.36</td>
</tr>
<tr>
<td>Comparison M</td>
<td>30</td>
<td>14.90</td>
<td>5.095</td>
<td>.930</td>
<td>13.00</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>18.58</td>
<td>6.766</td>
<td>.618</td>
<td>17.35</td>
</tr>
</tbody>
</table>

The results indicated that the experimental mobile learning group (M = 26.07, SD = 2.86) had the highest mean on the posttest of collocations. This was followed by the experimental traditional learning (M = 19.97, SD = 4.76), comparison mobile learning (M = 14.90, SD = 5.09) and comparison traditional learning (M = 13.37, SD = 5.37) groups.

Table 6 displays the main results of one-way ANOVA.
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and...

**Table 6. One-Way ANOVA for Reception Posttests**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2960.825</td>
<td>3</td>
<td>986.942</td>
<td>46.043</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2486.500</td>
<td>116</td>
<td>21.435</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5447.325</td>
<td>119</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results (F (3, 116) = 46.04, p < .05, ω² = .530 representing a large effect size) indicated that there were significant differences between the means of the four groups on the posttest of collocation. The significant F-value of 46.04 should be followed by the post-hoc Scheffe’s tests to see where the difference lies.

The results of Table 7 displays the main results of the post-hoc Scheffe’s tests.

**Table 7. Post-Hoc Scheffe’s Tests; Posttest of Collocations by Groups**

<table>
<thead>
<tr>
<th>(I) Group</th>
<th>(J) Group</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental T</td>
<td>Comparison T</td>
<td>6.600</td>
<td>1.195</td>
<td>.000</td>
<td>3.21 - 9.99</td>
</tr>
<tr>
<td></td>
<td>Comparison M</td>
<td>5.067*</td>
<td>1.195</td>
<td>.001</td>
<td>1.68 - 8.46</td>
</tr>
<tr>
<td></td>
<td>Experimental T</td>
<td>6.100*</td>
<td>1.195</td>
<td>.000</td>
<td>2.71 - 9.49</td>
</tr>
<tr>
<td>Experimental M</td>
<td>Comparison T</td>
<td>12.700*</td>
<td>1.195</td>
<td>.000</td>
<td>9.31 - 16.09</td>
</tr>
<tr>
<td></td>
<td>Comparison M</td>
<td>11.167*</td>
<td>1.195</td>
<td>.000</td>
<td>7.78 - 14.56</td>
</tr>
<tr>
<td>Comparison M</td>
<td>Comparison T</td>
<td>1.533</td>
<td>1.195</td>
<td>.650</td>
<td>-1.86 - 4.92</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.

The results of the post-hoc tests indicated that the experimental traditional learning group (M = 19.97) significantly outperformed the comparison traditional learning group (M = 13.37) on the posttest of collocation reception. The mean difference between the experimental and comparison traditional learning groups was higher than the significance level (p < .05) on the posttest of collocation reception (MD = 6.60, p < .05).

The results of the post-hoc tests also indicated that the experimental mobile learning group (M = 26.07) significantly outperformed the comparison mobile learning group (M = 14.90) on the posttest of collocation reception. The mean difference between the experimental and comparison mobile learning groups was higher than the significance level (p < .05) on the posttest of collocation reception (MD = 11.16, p < .05).

It was also shown that the experimental mobile learning group (M = 26.07) significantly outperformed the experimental traditional learning group (M = 19.97) on the posttest of collocation reception. The mean difference between the experimental mobile
learning group and the experimental traditional learning group was higher than the significance level (p < .05) on the posttest of collocation reception (MD = 6.10, p < .05).

Production Posttests

Table 8 displays the descriptive statistics for the four groups on the posttest of accurate use of collocation in narrative writing.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
</tr>
<tr>
<td>Experimental T</td>
<td>30</td>
<td>16.97</td>
<td>2.760</td>
<td>.504</td>
<td>15.94</td>
</tr>
<tr>
<td>Experimental M</td>
<td>30</td>
<td>17.87</td>
<td>1.592</td>
<td>.291</td>
<td>17.27</td>
</tr>
<tr>
<td>Comparison T</td>
<td>30</td>
<td>13.10</td>
<td>4.389</td>
<td>.801</td>
<td>11.46</td>
</tr>
<tr>
<td>Comparison M</td>
<td>30</td>
<td>14.30</td>
<td>3.495</td>
<td>.638</td>
<td>12.99</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>15.56</td>
<td>3.730</td>
<td>.340</td>
<td>14.88</td>
</tr>
</tbody>
</table>

The results indicated that the experimental mobile learning group (M = 17.87, SD = 1.59) had the highest mean on the posttest of collocation production in narrative writing. This was followed by the experimental traditional learning (M = 16.97, SD = 2.76), comparison mobile learning (M = 14.30, SD = 3.94) and comparison traditional learning (M = 13.10, SD = 4.38) groups.

Table 9 displays the results of one-way ANOVA.

<table>
<thead>
<tr>
<th></th>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>16.353</td>
<td>3</td>
<td>59.938</td>
<td>.000</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>14.352</td>
<td>3</td>
<td>85.951</td>
<td>.000</td>
</tr>
</tbody>
</table>

The results (F Welch = 14.35, p < .05) and (F Brown-Forsythe = 14.35, p < .05) indicated that there were significant differences between the means of the four groups on the posttest of collocation production. The significant results of the robust one-way ANOVA should be followed by the post-hoc Scheffe’s tests to examine where the difference lies.

The results of Table 10 displays the results of the post-hoc Scheffe’s tests.
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and...

**Table 10. Post-Hoc Scheffe’s Tests: Posttest of Production of Collocations in Narrative Writings by Groups**

<table>
<thead>
<tr>
<th>(I) Group</th>
<th>(J) Group</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Experimental T</td>
<td>comparison T</td>
<td>3.867*</td>
<td>.833</td>
<td>.000</td>
<td>1.50</td>
</tr>
<tr>
<td>Experimental T</td>
<td>Comparison M</td>
<td>2.667*</td>
<td>.833</td>
<td>.020</td>
<td>.30</td>
</tr>
<tr>
<td>Experimental M</td>
<td>Comparison T</td>
<td>4.767*</td>
<td>.833</td>
<td>.000</td>
<td>2.40</td>
</tr>
<tr>
<td>Experimental M</td>
<td>Comparison M</td>
<td>3.567*</td>
<td>.833</td>
<td>.001</td>
<td>1.20</td>
</tr>
<tr>
<td>comparison M</td>
<td>Comparison T</td>
<td>1.200</td>
<td>.833</td>
<td>.559</td>
<td>-1.16</td>
</tr>
</tbody>
</table>

*. The mean difference is significant at the 0.05 level.

The results of the post-hoc tests indicated that the experimental traditional learning group (M = 16.97) significantly outperformed the comparison traditional learning group (M = 13.10) on the posttest of collocation production in narrative writing. The mean difference between the experimental and comparison traditional learning groups was higher than the significance level (p < .05) on the posttest of collocation production in narrative writing (MD = 3.86, p < .05).

The results also indicated that the experimental mobile learning group (M = 17.87) significantly outperformed the comparison mobile learning group (M = 14.30) on the posttest of collocation production. The mean difference between the experimental and comparison mobile learning groups was higher than the significance level (p < .05) on the posttest of collocation production in narrative writing (MD = 3.56, p < .05).

As shown in the table, the results of the post-hoc tests indicated that there was not any significant difference between the experimental mobile learning (M = 17.87) and the experimental traditional learning group (M = 16.97) on the posttest of collocation production. The mean difference between the experimental and comparison mobile learning group and the experimental traditional learning group was higher than the significance level (p < .05) on the posttest of collocation production in narrative writing (MD = .90, p > .05).

For further clarity, a sample of the writing posttest of one of the subjects in each group is presented below. The correct collocations have been italicized, while the wrong ones have been underlined.
Discussion

Regarding the first research question, the results of the present study were indicative of the significant positive impact of audio-visual input enhancement teaching techniques on improving EFL learners' collocation learning and enhancing their accuracy concerning collocation use in narrative writing in T-learning context by the help of drawing the subjects' attention towards the target form.

Considering the second research question, the results and findings of the present study manifested the significant positive impact of audio-visual input enhancement teaching techniques in mobile learning context on improving EFL learners' collocation knowledge and enhancing their accuracy concerning collocation use in narrative writing by the help of drawing the subjects' attention towards the target form.

The positive impact of input enhancement teaching techniques on improving EFL learners' collocation knowledge and enhancing their accuracy concerning collocation use in narrative writing, have been supported by the findings of some other research studies such as

21-year-old participant:
Posttest
I am going to talk about a criminal movie that I watched. It was about a murderer which killed another murderer. After so many chasing, the police could catch him. When he went to the court, he make confession about his crime. But, he said that “I killed a murderer, not a normal person!” First, the judge sent him to prison till the end of his life, but later he changed his mind and dispense justice. The movie was open ended and I still thinking about the judge’s decision.

24-year-old participant:
Posttest
I don’t remember any good movie now. So I want to write about a series that I watching these days. The name is supernatural. There is a team of police officers who try to stop all the problems which cause concern for the people. For example, in the episode last night I watched, the police could tackle a big crime in a huge building. First, they fired a lot at the building, later they gained control over the building. It is a very exciting series, but my husband do not like it.

18-year-old participant:
Posttest
I want to explain about a movie which my brother gave me it. It was a crime movie but I don’t remember its name. A group of teenagers did a lot of crime in the city. The police tried to get them but they were too smart. One of their teachers one day found about their crimes and decided to talk to them. Then they stopped crime for the teacher’s talks. The movie showed that teachers can produce aware people better than police. Sometimes, of course!

23-year-old participant:
Posttest
There is a series on the TV, I am not sure it is crime. The name is Moammaye Shah (king secret). When people of Iran did not like him and came to street, the king destroyed the unrest. He even killed many people in Zhale Square. Although he wanted to ensuring the country safety, he used army cars and tanks! I think the series showed how cruelty king of Iran was.
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and...


The positive impact of input enhancement on learners' collocation knowledge and their accuracy concerning collocation use can be explained by referring to what Robinson (2003) has stated. According to Robinson (2003), noticing occurs for language learners when their attention is drawn to a target form. What input enhancement teaching techniques do is exactly drawing learners' attention towards a target form. Therefore, by the use of these techniques, learners' attention will be drawn to the target form and noticing will occur. In addition, the positive impact of input enhancement in leading the subjects to notice the enhanced collocations supported the idea of Fotos (1993) who has considered noticing as the interface between the learned and acquired knowledge.

The mechanism of input enhancement is actually focused on drawing learners' attention and helping them to notice a target form in second language input by making it more noticeable. As the English language teaching literature confirms, the concepts of attention drawing and noticing have been always two close and relevant concepts. Noticing Hypothesis declares that language input will turn into intake only when learners are conscious of what they are learning and attend the learning process (Schmidt, 2001). The results of the current study not only are useful for pedagogical implications but also are useful for confirming the credence of the role of attention drawing and noticing in successful language learning, which have been emphasized by researchers and scholars such as Robinson (1997), Wong (2003), and Schmidt (2001). All the above mentioned researchers have emphasized the common point of introducing novel teaching methods by which language learners' attention is drawn towards the target forms.

In recent research studies conducted in different fields of study such as linguistics and languages, mathematics, computer sciences and engineering and technology, exploring the role and importance of mobile aided learning and M-learning context have been emphasized by many researchers and scholars (Alibakhshi & Mohammadi, 2016; Levy & Kennedy 2005; Sharples, 2003; Virvou & Alepis, 2005). The M-learning literature review provides a valuable source for discussing the distinguishing features of this modern learning context and its critical role in language learning. Kromer and Kunter (2010) believed that the integration of technology into language teaching process can increase learners' motivation for learning and thereby to enhance the overall learning process.
With respect to the third research question, the results of this study first indicated that there was a significant difference in the impact of audio-visual input enhancement teaching techniques on improving EFL learners’ collocation knowledge between the experimental groups in T-learning and M-learning contexts.

With regard to the findings and results of the previous studies in terms of M-learning context (Cavus & Ibrahim, 2009; Kromer & Kunter, 2010; Sung, Chang, Hou, & Chen, 2012; Taleb, et al, 2015; Yafei & Osman, 2016; Zarei, et al, 2017), the result of this study about the significant impact of M-learning context on positive efficiency of audiovisual input enhancement can be attributed to some factors. The factors are in fact the special features and characteristics of M-learning context, including increasing learners' motivation, bringing autonomy for learners, long-term access to presented instructional materials, flexible learning, and immediate access to information, anxiety reduction, and overcoming limitations of T-learning context. The conclusions of previous research studies with respect to the effect of M-learning context on different aspects of language learning have manifested that using mobile devices has positive impact on increasing language learners' motivation. (Taleb, et al, 2015). Cavus and Ibrahim (2009), in their study concluded that the use of mobile devices has a significant impact on increasing learners' motivation. As it has been discussed by Sung, et al. (2012), mobile devices have many distinctive features such as individualized interfaces, real time access to information, context sensitivity, instant communication and feedback. The mentioned features may be effective in enhancing the effects of certain pedagogies such as self-directed learning, inquiry learning, or formative assessment. However, it should be noted that the features and characteristics of mobile devices are not sufficient condition for positive learning.

M-learning context could significantly enhance the efficiency and positive impact of audio-visual input enhancement on EFL learners’ collocation learning. In this regard, the result of the study is consistent with the results of some other research studies such as those conducted by Ashiyan (2016), Golshan (2017), Levy and Kennedy (2005), Thornton and Houser (2005), Yafei and Osman (2016), and Zarei, et al. (2017), in which the researchers have proved the positive impact of M-learning context on different aspects of language learning and second language teaching methods. Moreover, the findings advocated Bouhnik and Deshen’s (2014) claim which stated that WhatsApp can be considered as a social network which enables learners to access a plenty of information rapidly. As Yeung (2013)
declared learning via mobile devices and the use of mobile learning context is an influential and effectual strategy in helping second language learners to improve their learning.

The second point revealed by the results and findings of this study with regards to the third research question was that there was no significant difference in the impact of audio-visual input enhancement teaching techniques on enhancing EFL learners accuracy concerning collocation use in narrative writing between the experimental groups in T-learning and M-learning contexts. The almost similar performance of the subjects in the experimental groups' means in writing post-test could be explained as individual differences of subjects, or by some reasons other than the learning context such as learners’ little enthusiasm towards writing skill in general, learners’ weakness in writing skill, use of imagination in creating a short story at which some of the subjects may not be good enough.

**Conclusion**

The present study was conducted in order to first explore the impact of audio-visual input enhancement teaching techniques in two different learning contexts including T-learning and M-learning contexts on the improvement of EFL learners' collocation knowledge and their accuracy concerning collocation use in narrative writing. And second to compare the impact and efficiency of audio-visual input enhancement teaching techniques in different learning contexts including T-learning and M-learning contexts. The findings of the present study were quite consistent with the reviewed studies. Based on the results and findings of the present study, it was concluded that audio-visual input enhancement teaching techniques had significant positive impact on both improvements of EFL learners' collocation knowledge and enhancement of their accuracy concerning collocation use in narrative writing.

Regarding the findings and results of this study in terms of the two different learning contexts including T-learning and M-learning, and also comparing the efficiency of audio-visual input enhancement teaching techniques in these learning contexts, the conclusions of the study will be presented respectively with a focus on improving learners' collocation learning, and learners' accurate use of collocation in narrative writing. Based on the significant performance of the experimental M-learning group in comparison to the experimental T-learning group on the collocation post-test, it was concluded that audio-visual input enhancement teaching techniques were more effective on improving EFL learners' collocation knowledge in M-learning context.
With respect to learners' accurate use of collocation in narrative writing, the findings of the study indicated a difference between the means of experimental groups on the writing post-test, but in contrary to collocation post-test, the difference in experimental groups' means was not significant. Therefore, it was concluded that there was no significant difference between M-learning and T-learning contexts on the impact and efficiency of audio-visual input enhancement on enhancing EFL learners' accuracy concerning collocation use in narrative writing.

The findings of the study on collocation post-test provide evidences to confirm the features of M-learning context which makes learning to happen at any time and any place, to be more interesting for language learners, and also to allow more exposure and interaction with the target form or input.

However, like other empirical research studies, the findings of the present study are not definitive. In other words, the findings do not suggest that virtual learning described in this study is the only best way to improve EFL learners' collocation learning and their accuracy concerning collocation use in narrative writing, but rather it represents a useful construct to be employed by teachers as a basis for enhancing EFL learners' collocation learning and accurate use of collocation in writing, as well as using the benefits of the new learning context including M-learning one.

Regarding the limitations of the study, it should be mentioned that the present study also had some limitations one of which was learners' lack of access to mobile phones and applications. EFL learners' parents disagreed with using mobile phones because of some health problems which may happen for their children as the result of using mobile phones for a long time during a day. Another was the gender of participants and the class time for experimental and comparison groups in T-learning context.

In addition to the limitations of the study it is worthy to mention some of the possible pedagogical implications and suggestion for further research studies. The criterion that justifies the performance of a research study and increases its value and significance is in fact the possible and real implications of the research study. Second language teachers can thus take the results of the present study into account as a starting point from which they pay enough attention to the critical and beneficial role of attention drawing and M-learning context in successful language learning and acquisition process. On the other side, the findings of the present study may be helpful for the instructional material developers and syllabus designers in the sense that they can use attention drawing teaching techniques such
Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and...

as different types of input enhancement techniques for designing particular types of instructional materials. Moreover, policy makers and pedagogical managers can benefit from the advantages of mobile learning context in order to increase the new generation of learners' motivation and meet their expectations in all fields of study in general and language learning in particular.

It is crystal clear that no research study is exhaustive in itself, therefore further research studies are necessary in order to verify, confirm, validate and expand the results of the study. Consequently, replication of the present study is mentioned as the first suggestion for further research. The same basic design could also be employed for EFL learners of other languages. In further research studies, the impact of audio-visual input enhancement can be examined on other types of lexical collocations as well as grammatical collocations. In addition, further studies can focus on EFL learners’ fluency concerning collocation use, and also the impact of negative input enhancement techniques on the same variables as this study or other kinds of language forms or variables which are not explored in the study. Exploring the efficiency of input enhancement teaching techniques in mobile learning context was a very novel aspect of the present study. Therefore, the significant effect of audio-visual input enhancement teaching techniques on the improvement of EFL learners' collocation learning in mobile learning context calls for more thorough investigations of the reasons behind it. In addition, since the present study did not find any significance in the efficiency of audio-visual input enhancement teaching techniques on learners' accuracy concerning collocation use, further studies can investigate the reasons or involved factors.

It is hoped that this research can act as a springboard for promoting and inspiring more research on input enhancement.

References


Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and...


Comparing the Impact of Audio-Visual Input Enhancement on Collocation Learning in Traditional and...


Appendix 1

Collocation Pre-test

Part A: Fill in the blank by choosing the correct answer.

1- The same materials were thrown into the Martian atmosphere by ___________ winds.

A/ Secluded  B/ Lovely  C/ Strong  D/ Narrow

2- We've had three continuous nights of ___________ frost.

A/ Freezing  B/ Strong  C/ heavy  D/ Hard

3- The snow had almost stopped falling and we had a ___________ view.

A/ Large  B/ Soft  C/ Clear  D/ General

4- The police have decided to continue their interview until the rebels ___________ confession.

A/ Watch  B/ Make  C/ Receive  D/ Announce

5- The police has set up a special task to ___________ crime in the capital streets.

A/ Spend  B/ Tackle  C/ Bring  D/ Respond

6- It was believed that the accident happened as an indirect result of ___________ rain.

A/ Unclear  B/ Rough  C/ Heavy  D/ Strong

7- Unfortunately, the London's pilot was fatally wounded but his co-pilot managed to alight in a very ___________ sea.

A/ Rough  B/ Central  C/ Muffled  D/ Personal

8- But these tiny acts have helped men to ___________ control over women's lives.

A/ Gain  B/ Overcome  C/ Do  D/ Pierce

9- He was walking home with a ___________ fog, wondering when the blue skies of autumn might appear.

A/ Strong  B/ Thick  C/ clear  D/ Great
10- There are people in the scene, who are at least trying to ------------ awareness amongst others.
   A/ Agree       B/ Do          C/ Create      D/ Commit

11- From the terrace of my uncle's house, you have beautiful views of -------------- mountains.
   A/ Heavy       B/ Dreamy      C/ Tiny        D/ Snow-capped

12- The recent inaccurate economic announcement will ---------- concern in the Middle East.
   A/ Draw        B/ Offer       C/ Define      D/ Cause

13- Her 80-year-old husband had been declared mentally unfit to ------------ a trial.
   A/ Play        B/ Stand       C/ Visit       D/ Overcome

14- I may -------------- my mind as I get new information.
   A/ Change      B/ Appoint     C/ Allow       D/ Suffer

15- We sunbathed on a small -------------- beach.
   A/ Abandoned   B/ Secluded    C/ Genuine     D/ Enthusiastic

Part B: Fill the blank part of each sentence by choosing the correct answer from the box below.

Ensure- Wooden- Stage- Light- Quell- Brilliant- Forge- Dense-
Dispense- Botanical- Exercise- Starry- Commit- Mighty- Make

1- A ------------ Snow had begun to fall.
2- A new international law made it a duty to ------------ justice to victims.
3- His card had plunged down a motorway verge and into a ------------ fence.
4. I watched them walking down a wide marble staircase and out into the ____________ sunshine.
5. There were few laws or regulations for workers to ____________ safety for them.
6. People will ____________ complaint to the government about recent rebellions in the State.
7. Her office looks out over the ____________ garden in the country.
8. There is a general belief that police ____________ crimes nearly as many as they prevent or solve.
9. They ____________ a rebellion against Spanish rule in Mexico.
10. It was difficult to imagine her out there right now, looking up at this same ____________ sky.
11. He was criticized for failure to ____________ judgment.
12. We can see how pioneers of the ecological approach ____________ alliance with specialists from the environmental sciences.
13. It is a ____________ river, rising in the Rocky Mountains, and crossing eighteen degrees of longitude.
14. Troops were brought into ____________ unrest.
15. I remember going through a ____________ forest.

Good Luck
Answer Key for Collocation Pre-test

<table>
<thead>
<tr>
<th>Part A</th>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Light</td>
</tr>
<tr>
<td>2</td>
<td>Dispense</td>
</tr>
<tr>
<td>3</td>
<td>Wooden</td>
</tr>
<tr>
<td>4</td>
<td>Brilliant</td>
</tr>
<tr>
<td>5</td>
<td>Ensure</td>
</tr>
<tr>
<td>6</td>
<td>Make</td>
</tr>
<tr>
<td>7</td>
<td>Botanical</td>
</tr>
<tr>
<td>8</td>
<td>Commit</td>
</tr>
<tr>
<td>9</td>
<td>Stage</td>
</tr>
<tr>
<td>10</td>
<td>Starry</td>
</tr>
<tr>
<td>11</td>
<td>Exercise</td>
</tr>
<tr>
<td>12</td>
<td>Forge</td>
</tr>
<tr>
<td>13</td>
<td>Mighty</td>
</tr>
<tr>
<td>14</td>
<td>Quell</td>
</tr>
<tr>
<td>15</td>
<td>Dense</td>
</tr>
</tbody>
</table>

1  C
2  D
3  C
4  B
5  B
6  C
7  A
8  A
9  B
10 C
11 D
12 D
13 B
14 A
15 B
Appendix 2

Collocation Post-test

Part A: Fill in the blank by choosing the correct answer.

16- After psychiatric evaluations it was found out that he was competent to ··············· the trial.
   A/ Stand   B/ Administer   C/ Increase   D/ Do

17- She stayed willingly in the ··············· beach and enjoyed the sunshine alone.
   A/ Distorted   B/ Balanced   C/ Huge   D/ Secluded

18- He sat at an ordinary table, to which the plates were clipped, as aboard ship in a ··············· sea.
   A/ Conservative   B/ Heavy   C/ Rough   D/ Occasional

19- All the around ··············· mountains provide the walker or nature-lover with magnificent opportunities to savor the Alpine flora.
   A/ Clear   B/ Shallow   C/ Snow-capped   D/ Horrible

20- The inaccurate economic predictions should ··············· concern about the reliability of the financial benefits of annexation.
   A/ Perform   B/ Obey   C/ Commit   D/ Cause

21- What tragedies must occur before him and the minister of state will ················· their mind?
   A/ Hide   B/ Change   C/ Hinder   D/ Postulate

22- A hurricane is a circular storm of ··············· wind flow which rotates in a counter-clockwise direction.
   A/ Strong   B/ Tiny   C/ Dreamy   D/ Thick

23- Just after midnight, Jane woke to a ··············· rain.
   A/ Thick   B/ Heavy   C/ Isolated   D/ Major
24- Meanwhile both groups began infiltrating the city in an attempt to control of key locations.
A/ Notify       B/ Gain       C/ Make       D/ Hinder

25- After a frost the passage walls sweated and water tricked down the corridors.
A/ Hard         B/ Spectacular C/ Blunt       D/ Unbroken

26- Anyone wishing to crime rates must pay enormous attention to youth crime because of its sheer scale.
A/ Notice       B/ Betray     C/ Tackle     D/ Stain

27- By the time we reached the Island, dusk went falling and a fog had rolled in.
A/ Wide         B/ Rough      C/ clear      D/ Thick

28- Heroic Therese, standing up straight to confession with shining eyes, await due punishment.
A/ Announce     B/ Create     C/ Make       D/ Have

29- He moved slowly and cautiously and kept his hands in view.
A/ Large        B/ Clear      C/ Narrow     D/ Constant

30- The first need is to awareness of a building's historical worth.
A/ Create       B/ Betray     C/ Stain      D/ collapse

Part B: Fill in the blank in each sentence by choosing the correct answer from the box below.

Light - Brilliant - Dense - Starry - Botanical - Wooden - Mighty
Dispense - Commit - Stage - Quell - Ensure - Exercise - Make - Forge

16- Farmers who oppose the tax should a rebellion to force Washington to back down.
17- She is going to ------------ a complaint against her employers.
18- We had dinner on the terrace, under a beautiful ------------------ sky.
19- Who ------------------ justice round here?
20- Carior sits at the mouth of the -------------- river Nile.
21- The -------------- snow fell straight from the sky without the wind and was soft and fluffy beneath her feet.
22- Whatever their differences, they were able to -------------- alliance across their similar positions.
23- When I left the Trowbridge house, I stood still, blinking in the -------------- sunshine.
24- They walked along the tall -------------- fence that cut the construction site off from the avenue.
25- Often these acts of kindness came from the same men who had grossly failed to -------------- judgment on previous occasions.
26- Their helicopter could not land because of the -------------- forest.
27- Brady says she believes government has a crucial role to -------------- safety in every country or state.
28- The government’s attempts to -------------- unrest led to civil war.
29- Trees from every continent turn king’s park into a giant -------------- garden.
30- Although he was known as a rebellion but he never intended to -------------- crimes.

Good Luck
Answer Key for Collocation Post-test

<table>
<thead>
<tr>
<th>Part A</th>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A</td>
<td>1 Stage</td>
</tr>
<tr>
<td>2 D</td>
<td>2 Make</td>
</tr>
<tr>
<td>3 C</td>
<td>3 Starry</td>
</tr>
<tr>
<td>4 C</td>
<td>4 Dispense</td>
</tr>
<tr>
<td>5 D</td>
<td>5 Mighty</td>
</tr>
<tr>
<td>6 B</td>
<td>6 Light</td>
</tr>
<tr>
<td>7 A</td>
<td>7 Forge</td>
</tr>
<tr>
<td>8 B</td>
<td>8 Brilliant</td>
</tr>
<tr>
<td>9 B</td>
<td>9 Wooden</td>
</tr>
<tr>
<td>10 A</td>
<td>10 Exercise</td>
</tr>
<tr>
<td>11 C</td>
<td>11 Dense</td>
</tr>
<tr>
<td>12 D</td>
<td>12 Ensure</td>
</tr>
<tr>
<td>13 C</td>
<td>13 Quell</td>
</tr>
<tr>
<td>14 B</td>
<td>14 Botanical</td>
</tr>
<tr>
<td>15 A</td>
<td>15 Commit</td>
</tr>
</tbody>
</table>