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A Comparative Study on the Effects of Multiple-choice vs. Sentence-writing Modes of Test Practice Manipulation on Intermediate EFL Learners' Collocation Learning

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Abstract

Within the realm of lexis, the area of collocation is of prime importance to producing natural-sounding language for anyone learning a foreign language. This study aimed at investigating the effects of two modes of sentence writing versus multiple-choice test practice manipulation on Iranian intermediate EFL learners' lexical collocation learning. For this purpose, to ensure the homogeneity of the participants, Preliminary English Test (PET) was administered to 87 students studying English at two English institutes of Ofoghhaye Nour and Nourmahdi in Roudsar, Guilan, through which 60 students were selected as the target participants. They were intermediate students with the age range between 17 and 23. They were then divided into two equal comparison groups: Sentence-writing Group (SRG) and Multiple-choice Group (MCG). A piloted pretest of lexical collocation was administered to both groups. Then both groups underwent a 7-session treatment. SRG was treated by the virtue of sentence-writing practice for the target collocations, and MCG was instructed through recognition practice, here multiple-choice practice. After the treatment period, the same version of lexical collocation test was administered to both groups as posttest to examine the effectiveness of the treatments. The results of paired-samples and independent samples t-tests indicated that both groups had collocation gains but the effectiveness of multiple-choice test manipulation on learners' lexical collocation outweighed that of the sentence-writing mode of test practice manipulation. The implications and recommendations were also presented.

Keywords: lexical collocation, EFL learners, multiple-choice, sentence-writing, test practice

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1. Introduction

The researchers in the field of foreign language learning assume that vocabulary learning is the most crucial and important aspect in learning a language. Schmitt (2008), Hulstijn (2012), Mirzaii (2012), and Yali (2010) appreciate vocabulary as an essential part of mastering a second and foreign language. Kweon and Kim (2008) and Rashidi and Piran (2011) maintain that mastering a second language and developing language proficiency involves enriching one's vocabulary repertoire in that, as they hold, vocabulary takes a position at the center of language learning. Therefore, as Yali (2010) stresses, particular attention ought to be paid to the issues attributed to vocabulary learning and teaching since without vocabulary enhancement in second or foreign contexts it is difficult to communicate. As Hulstijn (2012) points out, without one's knowledge of vocabulary nothing can be conveyed and no real communication may be fulfilled, as it is true about individuals' lack of the knowledge of grammar.

Wang (2011) enumerates five steps through which learning new lexical items in language can take place, which are encountering new words, getting the word form, getting the word meaning, enriching and consolidating word form and meaning in memory, and using the word in certain contexts. Researchers assume that instructors in learning environments had better expose their learners to vocabulary learning strategies so as to enhance their vocabulary knowledge mastery. Among the scholars, Richard and Renandya (2002) and Wang (2011) argue in favor of these strategies, emphasizing them as specific thoughts or behaviors that learners apply to comprehend and learn new information, and help them with the retention of the new information. Likewise, Richard and Renandya (2002) highlight three prominent vocabulary strategies applicable to learners, involving incidental (implicit) learning strategy, independent learning strategy, and explicit learning strategy.

Over the last few years, research into collocations in the area of acquisition of a second language and foreign languages has become increasingly important. Fernández, Prahlad, Rubtsova, and Sabitov (2009) refer to collocation as an entity, consisting of two or more words, that conveys how individuals should express their meaning conventionally, and the meaning of the collocated words and chunks is totally or partially different from the sum of their parts. Salido, Garcia, Villayandre-Llamazares, and Ramos (2018) argue that the determination of meanings of chunked words and expressions is largely fulfilled through their collocational patterns, and hence give prominence to the learning and enhancement of collocational knowledge as a necessity to the learners in second language acquisition and foreign language leaning. They have shown the importance of learning collocations as an efficient way of improving and enhancing fluency in the learners' language and native-like selection of language use.

1.1 Statement of the Problem

Fowle (2002) and Keyvanfar and Arya (2009) believed that learning vocabulary causes major problems for a foreign language student, and it is probably the most difficult aspect of foreign language instruction because of the inherent complexities of the task and the great differences in the attitudes of learners. According to Hunt and Beglar (2005), research on the individual vocabulary items has been very extensive; however, as Nation (2005) asserted, studies in the domain of lexical collocations do not amount to much. In some English as a Foreign Language (EFL) contexts, as a dominant method of vocabulary learning practice, learners are exposed to long list of new lexical items in isolated and context-free forms (Zarei & Tondaki, 2015) which renders the burden of vocabulary development tedious, or they are required to practice and learn the meaning of target words and expressions through lexical translation, by supplying learners' first language (L1) equivalents to the target second language (L2) vocabulary (Wang, 2011). Therefore, rather than just asking and following the meaning of a word given in isolated forms, instructors need to value the importance of using contexts to present novel words.

Linguistic contexts, in particular, enhance learners' ability to utilize morphonological along with lexical rules, which are valued as instruments to facilitate understanding of the meaning and the form of the target words and collocations (Keyvanfar & Arya, 2009; McCarthy & O'Keeffe, 2010; Toksöz & Kılıçkaya, 2017). Accordingly, this study shows the degree of effectiveness of two modes of vocabulary test practice manipulations (multiple-choice-item test practice and production test practice) on students' lexical collocation learning. Abdellah (2015) points out that individuals' fluency in vocabulary items and lexical collocation can be acquired via the acquisition of several fabricated items. The current study attempted to show how and the extent to which multiple-choice-item test practice and production tests practice may affect intermediate EFL learners' attainment of lexical collocation. These two variables and their potential interaction on each other have not been investigated thoroughly in the Iranian context yet. So the present study was going to fill this gap and shed more light on this by finding any possible effect of multiple-choice-item and

production tests practice on the Iranian intermediate EFL learners' lexical collocation development. Therefore, in light of the research variables, the following research hypotheses were posed in this study:

H01: There is no significant difference in Iranian intermediate EFL learners' lexical collocation achievement instructed through selective (multiple-choice) test practice manipulation.

H02: There is no significant difference in Iranian intermediate EFL learners' lexical collocation achievement instructed through productive (sentence-writing) mode of test practice manipulation?

H03: There are no significant differences in the lexical collocation learning of multiple-choice-item test practice group and production (sentence-writing) test practice group?

1.2 Research Questions

According to the research hypotheses, three research questions were addressed to serve the purpose of the study.

1. Is there any significant difference in Iranian intermediate EFL learners' lexical collocation achievement instructed through selective (multiple-choice) test practice manipulation?

2. Is there any significant difference in Iranian intermediate EFL learners' lexical collocation achievement instructed through productive (sentence-writing) mode of test practice manipulation?

3. Is there significant differences in the lexical collocation learning of multiple-choice-item test practice group and production (sentence-writing) test practice group?

2. Review of the Literature

2.1 Trends in Vocabulary and Collocation Learning

To emphasize the determining role of vocabulary learning strategies, Richard and Renandya (2002) pay particular attention to three strategies applied by EFL and English as a second language (ESL) learners: the independent learning strategy, explicit learning strategy, and incidental mode of vocabulary learning. The independent mode of vocabulary manipulation, as Richard and Renandya (2002) value, is effective for enhancing and enriching learners' acquisition of the repertoire of newly-picked vocabulary in that learners come to make use of those strategies independently for enlarging their vocabulary stock. Another area of research which has recently received attention as to the degree of engagement with vocabulary is explicit technique of acquiring target vocabulary. Through the explicit mode of vocabulary learning, as Madrigal-Hopes, Villavicencio, Foote, and Green (2014) and Young-Davy (2014) point out, teachers determine words that learners need, present them, and elaborate their word knowledge. These researchers have shown that in order for vocabulary to be learned both receptively and productively, direct attention to meaning and use is necessary. That is, students need both conscious attention and sufficient exposure to effectively acquire and employ targeted vocabulary. Incidental vocabulary learning strategy, according to Alemi and Tayebi (2011), is fulfilled by extensive reading and listening which teachers and instructors in learning environments offer to learners.

The term collocation has been discussed widely and prevalently in many areas of linguistics, such as phraseology, corpus linguistics, lexicography, semantics, systematic linguistics, and morpho-syntax. As Heidarnezhadian, Aliakbari, and Mashhadi (2015) elaborate, collocations are generally defined as words that fit together intuitively with great focus on the syntagmatic and paradigmatic levels. The syntagmatic relation of lexical words, which is horizontal, deals with the collectability of words. The paradigmatic relation of lexical words, however, is vertical and refers to sets of words in the same class. They further note that collocations are predictable patterns and phrases or groups of words that typically co-occur. They include what we have traditionally considered lexical items, and structural patterns which may be closer to grammar and combinations of words that simply go together.

Kasraian and Pakfetrat (2017) highlighted three different trends in the study of lexical collocations. The lexical composition trend assumes that words gain their meanings from the words with which they co-occur. In this notion, collocation is viewed as a component separated from grammar. The semantic trend in collocations, as the term implies, according to Decaricco (2001), explores collocations from the semantic point of view separately from the grammatical aspect, the idea that is contrasted with the lexical trend. Hsu (2007) embarks on the structural trend to deal with collocations, by arguing that collocation is structurally defined and recognized, and influenced by structure and hence learners' knowledge of collocation needs to be explored by taking into account their syntactic features.

2.2 Difficulties with Learning Collocations

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Taiwo (2004), Walsh (2005), and Millar (2005) point to the difficulties that second language learners, in particular, adult second language learners encounter using and producing lexical collocations. They note that the collocations are sometimes used erroneously in texts and collocational problems are largely concerned with the learners' attempts to write creatively in second language (L2). Abdellah (2015) indicates that difficulties with learning and using collocations originate from a variety of variables, the most salient of which are learners' native language (L1) background, age, and personality. He assumes that language teaching has directed its goal to the dichotomy of grammar and vocabulary as a means to assist learners to master the grammatical system, learn lots of words, and help speakers with L2 language to apply accurate collocations talk about any topic. This view of language indicates that individuals have learned an extensive vocabulary and then struggle to use grammar to talk about those things. This is the reason for so many grammar mistakes. Studies by Huang (2007), Hsu and Chiu (2008), and Zinkgraf (2008) reveal that L2 learners may experience difficulties with both comprehension and production of collocations. They confirm that disproportional emphasis on grammar and lack of required attention to vocabulary and collocation in EFL learning contexts lead students to be unable to produce sentences in communication.

Despite the importance of collocations, researchers, to name some, Taiwo, (2004), Walsh (2005), and Millar (2005) indicate that collocations are an inherent problem for L2 learners and one of the difficult aspects of vocabulary learning for learners of a foreign or second language. Advanced learners and professional translators continuously stumble over and encounter challenges in pursuit of the words which go hand in hand with other ones appropriately. Far from translation, other researchers have investigated other matters related to collocations in foreign language learning. Hasanabadi (2003) studied learning English lexical and grammatical collocations by Iranian EFL learners. After examining learners' collocations types, he found that their performance differed according to the patterns of collocation "in favor of verb-noun collocations" and that acquisition of lexical collocations was easier than grammatical ones. Hasanabadi (2003) shows that learning collocations is facilitated by the level of ESL and EFL learners in that learners with higher levels of proficiency are able to learn collocations much more easily.

According to Pulido and Dussias (2020), multiword units that are congruent, meaning that they possess word-by-word equivalents in L1 and L2, are known to have a processing advantage even when encountered for the first time. In contrast, L1-L2 incongruent multiword units, which differ from their L1 counterparts, are much more difficult to acquire and result in abnormality in collocation gain. Collocations in English are frequently used in spoken and written interactions. Therefore, mastering it involves approaching naturalness, precision, and therefore fluency in the foreign language. Mahmoud (2005) and Zarei and Koosha (2003) argue that learners in English as a foreign language encounter difficulties with collocating English words together in an acceptable way. When L2 learners confront such difficulties in their collocation learning, they appeal to some strategies so that they can fill in any gaps in their L2 speech or writing. Researchers are willing to find out how and through what mechanisms L2 learners can cope with linguistic problems arising from their inadequate command of the target language. However, there is insufficient emphasis and inadequate attention to the lexical strategies used and taken into account by L2 learners at different proficiency levels.

2.3 The Importance of Learning Collocations in EFL Contexts

Boers, Eyckmans, Kappel, Stengers, and Demecheleer (2006) indicate and emphasize the importance of collocations in EFL contexts. Xiao and McEnery (2006) evidence the significance of teaching and learning collocations among L2 learners. Hashemzadeh (2012) and Hsu (2007) point out to the significance of multi-word units as being crucial both in the first language acquisition and second or foreign language learning. By the same token, they give prominence to the importance of learning words in chunks in terms of pronunciation, intonation, and reading. According to Bazzaz and Samad (2011) and Currie and Chiramanee (2010), collocational competence has been considered a highly valuable component in the development of second or foreign language learning. So it is assumed that teaching and learning these multi-word expressions should be taken into great consideration. Chen (2008) highlights the role of multi-word lexical units by claiming that they are crucial not only in first language acquisition, but also in learning a second or foreign language. Likewise, Durrant and Schmitt (2010) maintains that both written and spoken language collocations are the valuable keys to fluency.

In addition, he stresses the importance of learning words in chunks in terms of pronunciation, intonation, and reading. Hsu and Chiu (2008) and Bahardoust and Moeine (2012) show that collocational competence is a vital component in the development of second or foreign language learning, and hence learning these multi-word expressions should be given more attention. Bazzaz and Samad's (2011) study on the importance of collocation shows that collocational

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proficiency differentiates native speakers and EFL learners and is viewed a major issue in productive skills, in particular. Rahimi's (2005) investigation into lexical collocations and Keshavarz and Salimi's (2007) research study on lexical collocations revealed that the systematic teaching of lexical collocations has positive effects on the Iranian EFL learners' vocabulary knowledge and enables them to gain sufficient collocation knowledge. Chen's (2008) investigation into two elements of lexical and grammatical collocations yielded to the conclusion that collocation must be assigned a substantial role in English instruction in that the positive impact of collocation knowledge on and the learners' overall English proficiency remains undoubted.

2.4 Two Modes of Vocabulary Test Practice: Multiple-choice and Sentence-writing Manipulations

In vocabulary learning contexts, students usually use a variety of strategies when they encounter new words in a Foreign Language (FL) text. These strategies include providing lexical translation for the unknown words, consulting a dictionary for the meanings of these words, writing them down for further consultation with a teacher, supplying example sentences, or attempting to infer their meaning from context called lexical inferencing. Multiple-choice and productive formats of testing practice, as they fall within the area of discussion in the current study, are among the most commonly used items in the EFL language classrooms conducted in the nationwide as well as the worldwide domains. Through the presentation of selective test practice, namely, multiple-choice mode of input manipulation, the total number of options, including the correct and incorrect choices ranging from four to five, relies on the needs and the level of the students. There are several advantages of using multiple-choice items. One is contributed to its scoring norm and domain which is relatively easier and more objective than the subjective modes of test presentations (McCarthy, O'Keeffe, & Walsh, 2010). The second advantage is the interpretation of test score results, which is often more practical and in accordance with the previously established criteria determined by testing and teaching authorities. As involved in recognition or selective modes of vocabulary practices, learners have to differentiate words from others and recall the meaning (Bailey & Curtis, 2015).

Productive modes of vocabulary learning activity, the example of which is the provision of model example sentences for the target words, aims to provide learners with some opportunity to create and present English sentences for each new word and expression. The learners are required to do this task to learn and enrich their understanding of the target words by supplying an example sentence for each word. What interests us in the present research is the study (Zhang, 2009) using example sentences to present target words and examining how they work in direct vocabulary learning in EFL context. Zhang (2009) has shown that this task facilitates learners' vocabulary learning, by arguing that the ways of implementing example sentences affects vocabulary learning and retention. Their impact on vocabulary enhancement is more notable and better when students write their own authentic example sentences than when the example sentences are randomly supplied by their instructors. He has also clarified that by using example sentences, learners can be freed from and develop their independence on the vocabulary learning methods relying on simple and mechanical repetition and rote memorization, and thereby their interest and confidence in learning activity can be enhanced and then the learning efficiency can be promoted.

2.5 Empirical Studies on Test Types Practice with a Focus on Lexical Items and Chunks

Recognition and recall tests are often used to examine students' vocabulary knowledge. Tuyen (2015) argues that these two forms of testing are quite different and demand separate processing strategies. As Kremmel and Schmitt (2016) assert, recognition types of tests usually require multiple choice activities through which learners select or guess the correct response out of the alternatives given. These tests may strengthen any existing memory traces. Recalling norms of tests, in contrast, involve producing responses from memory. Riahi (2018) maintains that recalling kinds of tests are more difficult and challenging than recognition kinds of tests since learners have to search for the correct response within their mental representation of the newly experienced information. Jones (2004) designed a study to examine the effects of pictorial and written annotations on second language (L2) vocabulary learning from a multimedia environment. In the first study, students in the three treatment groups recognized English translations or pictorial representations of French keywords better than the students that received no annotations during listening. In the second study, students produced English translations of French keywords best when the mode of testing matched the treatment mode. These results are indicative of the beneficial effects of annotations on L2 vocabulary recognition and recall.

Bahardoust and Moeine's (2012) study was concerned with examining the rate of lexical collocations in Iranian EFL learners' writing production between L1 and L2, and the influence of L1 on L2 collocational use. He collected the required data of the study from midterm, final tests, and assignments of the students, and the rate of different groups

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of lexical collocations was compared. The findings of the study indicated that the rates of verb-noun and adjective-noun collocations were the highest, and the rate of noun-verb collocations was the lowest. In addition, the rate and the frequency of collocations were compared in L1 and L2 paragraphs. It was reported that L1 collocations had higher rate and frequency than L2, and L1 had both positive and negative impact on collocations. Siyanova and Schmiitt (2008), Durant and Schmitt (2010), Zarei and Baniesmaili (2010) shed light on the learners' exposure to varied modes of collocation instructions, through which they reported acceptable proportion of collocation production and comprehension in the participants' collocation learning attempt. The findings of this study, however, indicated that the learners' fluency in producing combinations did not match the fluency of native speakers.

As another type of collocational study, Sonbul and Schmitt (2013) shed light on the effectiveness of three input manipulations of enriched, enhanced, and decontextualized input on the learners' improvement in collocation competence. The results obtained showed the three modes of instructions brought about differences in the learners' collocation competence. However, the efficacy of decontextualized condition of collocation treatment over the enriched and enhanced techniques was shown as the merit of the study. Zarei and Tondaki (2015) investigated the impact of exposing EFL learners to two modes of explicit and implicit instruction on the production and comprehension of lexical collocations through the media of production and comprehension tests of lexical collocations. Through the findings of the study, they indicated that there were significant differences in the learners' achievement in lexical collocations both on the comprehension and production of collocations.

Mosoumi and Sadeghi (2020) examined the impact of test format on vocabulary test performance by incorporating the degree of effectiveness of multiple- choice and constructed response vocabulary tests in an EFL setting like Iran. In so doing, one group of pre-intermediate participants was administered a multiple-choice format of vocabulary test, and the other group was exposed to constructed response vocabulary test. Finding of the experiment indicated that that vocabulary performance of test takers varied in light of test format. The results showed that the learners' performance was remarkably better in multiple-choice test formats and revealed efficacy of multiple-choice manipulation of test practice format in that the participants could deal with multiple-choice tests easier than the constructed response format of vocabulary test construction. In addition, consistent results were achieved by Chan and Kennedy (2002), Hastedt and Sibberns (2005), Famularo (2007), In'nami and Koizumi (2009), Currie and Chiramanee (2010), Shaibah and van der Vleuten (2013), and Ferit Kılıçkaya (2019) by arguing that significant differences were reported between the performance of test takers through multiple-choice and constructed response (productive) vocabulary test practices; in other words, the learners treated by selective response format of vocabulary test practice outperformed the learners exposed to constructed or productive format of vocabulary test practice.

As another study of rather similar nature, Famularo (2007) investigated individuals' performance on vocabulary and multi-word achievement in light of two modes of test practice manipulation, namely, multiple-choice and constructed or productive response items. The findings confirmed the outperformance of recognition format of test practice manipulation over the productive technique of test input. The findings also implied test taking strategies and corrective feedback while doing multiple-choice items and the additional cues supplied by recognition type of test practice were as merits and rewards of this kind of test practice input. Hashemzadeh (2012) investigated the Elementary EFL learners' vocabulary retention of the newly learned words using recognition exercises (fill-in-the-blank, and matching) and production exercises (paraphrasing, and glossing) in immediate and delayed vocabulary tests. After doing each exercise, the learners were instructed to provide an English synonym, or an English definition, or translation of the word in L1 for each word. The results of the comparative study showed that the L2 learners recalled more words through fill-in-the-blank exercise than other exercise types both in immediate and delayed tests. Furthermore, the results revealed that recognition exercises were more effective than production exercises in EFL vocabulary retention. Likewise, the learners' scores on immediate tests were better than those in delayed tests in four different exercise types.

Some empirical studies, on the other hand, have identified inconsistent results concerning the outperformance of recognition format of test practice manipulation over the productive technique of test input. Hastedt and Sibberns (2005), Hickson, Reed, and Sander (2012), and Vosoughi and Mehdipour (2013) reported contrasting results. Hastedt and Sibberns (2005) claim that there are not significant differences in learners' achievement in vocabulary and multiword components as manipulated by selective and productive modes of test practice, or in some cases only little differences are observed between the scores of the two modes of instruction. Hickson, Reed, and Sander (2012) reported that the two techniques of test practices, i.e., multiple-choice and productive formats of test manipulation, had no impact on learners' enhancement in vocabulary. Vosoughi and Mehdipour (2013) carried out a study to

investigate the effectiveness of two types of tasks, i.e., production versus recognition tasks on incidental vocabulary learning of Iranian EFL learners. The results indicated that both treatments had significant effect on incidental vocabulary learning but this effect was greater in production group. It was concluded that those who did production task through reading outperformed those who did recognition in vocabulary test.

Zhang (2009) evidenced the effectiveness of using example sentences in vocabulary learning activities. The study findings confirmed that the presentation and the way of using example sentences in vocabulary learning activities, on the part of learners, enhances learners' vocabulary learning and retention. It was also concluded that the effectiveness of the provision of example sentences to target words and items in learning activity is more prominent when learners make their own example sentences than when the sentences are randomly provided by the teacher in ESL and EFL contexts. Talebzadeh and Bagheri (2012) investigated the effectiveness of three writing assignments, involving sentence making, composition writing, and cloze test, on EFL learners' achievement in L2 lexical items. It was shown that the three modes of target word instruction made significant differences in the learners' knowledge of lexical items, but the sentence-making task was the least effective of the other techniques. Barcroft (2004) examined the Effects of sentence writing mode of treatment on second language lexical acquisition in a second language context in Spain. In the sentence writing condition, the participants were allowed to view one repetition of each word for 48 seconds and then asked to write the word in a sentence. No positive result was reported on the impact of sentence-writing input on the learning and retention of target words. Accordingly, results of the experiment indicated strong negative effects for the sentence writing conditions, suggesting that sentence writing can inhibit word form learning during the initial stages of L2 lexical acquisition.

3. Methodology

3.1 Design of the study

All requirements of a quasi-experimental study, including pretest, posttest, randomization, and treatment for both groups, were met in this study. The independent variables of the study were multiple-choice and sentence-writing test practice manipulations, and the dependent variable was the learners' knowledge of lexical collocation.

3.2 Participants

60 intermediate EFL learners, studying English at two English institutes of Ofoghhaye Nour and Nourmahdi in Roudsar, Iran, took part in the study. They were both male and female. Twenty-five of them were male and thirty-five were female with an age range of 17 to 23 years old. All the participants' first language was Persian. In order to obtain a homogenized group, the participants were given the reading part of Preliminary English Test (PET), a standardized English proficiency test. The test was administered to 87 students, out of whom sixty were selected based on the results of the test. Those students whose scores were one standard deviation above and below the mean (i.e., mean$\mp$1) were selected as participants of this study. Then they were randomly assigned to two equal comparison groups, i.e., Multiple-choice Group (MCG) and Sentence-writing Group (SWG).

3.3 Materials and Instruments

The data gathering instruments and materials applied in this study were of four types as follows:

3.3.1 Preliminary English Test (PET)

In order to keep the homogeneity of the participants under study, the reading part of PET, a standardized English proficiency test, was given to 87 students. Based on test administration results, the participants whose score range was one standard deviation above and below the mean (i.e., mean$\pm$1) were selected to serve the purpose of the researchers.

3.3.2 Lexical Collocation Pretest and Posttest

After the administration of the homogeneity test, a pretest was given to the participants which was a lexical collocation test, comprising forty multiple-choice items (recognition type). The test was constructed from Zarei's manual (2002) and a native source titled English Collocations in Use: Intermediate Level (McCarthy & O'Dell, 2005). The same version of collocation multiple-choice-item test was administered as posttest to the both groups, with the rearrangement of some items.

3.3.3 Pilot Study

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The test constructed as the pretest and posttest of this study underwent a pilot study. To this end, a 60 -multiple-choice-item lexical collocation test was given to 20 subjects with similar characteristics as those of the target groups, i.e., the students who did participate in this study. Based on the psychometric characteristics of the items (item facility, item discrimination, and choice distribution), the poor items were discarded from the final version, and a 40- multiple-choice-item collocation test was determined for the pretest and posttest.

3.3.4 The Material for the Treatment

The materials selected for the sake of the treatment for both groups were ten average-length reading passages, each of which included 200 to 210 words. Each reading text included 10 to 12 new lexical collocations. The readability of the selected passages was determined based on Fog's readability formula, and finally, ten passages which had almost the same readability indices (about 19.80) and were of the same average length – 200 to 210 words - were chosen to be used for treatment materials. They were authentic passages extracted from a native source for intermediate level (McCarthy & O'Dell, 2005). The new lexical collocations of each reading passage were enhanced through the medium of italicizing for both comparison groups.

3.4 Data Collection Procedure

First of all, to homogenize the participants in this study, the proficiency test of PET was administered to 87 students, through which 60 were selected as the target group participants. The participants were offered their treatments for the same period of time through the same material but different methodology. To serve the purpose of this study, the treatment material selected, included ten authentic reading passages, each of which comprised 200 to 210 words and were taught during seven sessions. In general, the ten reading passages were taught during seven sessions of treatment. Each group of participants received their treatment under one of the following conditions. The participants in MCG were treated through selective (multiple-choice) mode of test practice manipulation. They were treated by ten reading passages, each of which contained 10 to 12 new lexical collocations enhanced by italicizing and followed by twelve four-option multiple choice questions. The purpose of the multiple-choice test on collocation was to have the participants practice the newly-introduced collocations immediately after covering each passage. The participants of this group were required to fill the gaps in each text by choosing the right words from a list of twelve four-option multiple choice items.

The participants in SRG separately underwent seven sessions of instruction. The same reading passages were given to the participants, and they were supposed to read passages and practice the meaning of each of target lexical collocations through offering an English example sentence. The teacher, as the researcher, put the model example sentence in English on the board and draw the participants' attention to the intended word. Like MCG, the participants in this group were just allowed to make use of monolingual dictionary in the treatment session. They practiced and learned the meaning of the new collocations using monolingual dictionary whenever necessary, and through English definition, synonym, and antonym techniques. Both SWG and MCG were taught by the same teacher as the researcher in this study using different instructional ways for each group. After the fulfillment of treatment for both groups within seven sessions, a posttest was administered to the groups, which was the same version of test on lexical collocation administered, with a rearrangement of some items in the posttest in order to control the probable testing effects.

3.5 Data Analysis

The collected data were entered into the SPSS 16.0 for further analysis. Paired- samples t-tests and independent-samples t-test were used to analyze the data and investigate the research questions and the alpha level for significance testing was set at .05.

4. Results

The description of the statistical analyses related to the study and examining the questions of this research were presented as follows:

4.1 Investigating the First Research Question

In order to examine this question, a paired-samples t-test was run to analyze the difference in the participants' scores from pretest to posttest as a result of being instructed by multiple-choice manipulation of test practice. The descriptive statistics are presented in Table 1.

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Table 1. Descriptive statistics of paired-samples t-test for MCG

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PosMCG	15.36	30	2.46	0.45
	PreMCG	11.95	30	4.00	0.73

Table 1 illustrates that the posttest mean score (15.36) of MCG is more than the pretest mean score (11.95). The standard deviation for the posttest was less than the pretest. This may be an indicative of an image of less variability among MCG posttest scores compared to the pretest scores. In order to find out whether there was a significant difference between the pretest and posttest mean scores of MCG, the results of paired-samples t-test are presented in Table 2.

Table 2. Results of paired differences for MCG

		Paired Differences					
		Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pair 1	PosMCG PreMCG	3.41	1.79	0.32	10.42	29	0.00

In respect to the information given in Table 2, there is a significant difference, t (29) = 10.42, p = 0.00), between the pretest-posttest mean scores of MCG. Therefore, the first null hypothesis of the study is rejected.

4.2 Investigating the Second Research Question

Through the second research question, it is addressed that sentence-writing manipulation of test practice does not affect Iranian intermediate EFL learners' collocation learning. To investigate this hypothesis, a paired-samples t-test was run for SWG, the results of which are presented in Table 3.

Table 3. Descriptive statistics of paired-samples t-test for SWG

		Mean	N	Std. Deviation	Std.Error Mean
Pair 1	PosSWG	13.28	30	2.82	0.51
	PreSWG	12.01	30	3.97	0.72

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According to the results indicated in Table 3, the mean score of SWG in pretest is 12.01 but in the posttest is 13.28. It can be interpreted that the participants' collocation learning after treatment was notable. This clue indicates the rejection of the second null hypothesis. Furthermore, standard deviation (Std. Deviation) for the posttest in this group is less than that of the pretest. This may be indicative of less variability among SWG posttest scores than that of the pretest. Furthermore, Table 4 provides further clues concerning the rejection of the second null hypothesis.

Table 4. Results of paired-samples t-test for SWG

			Paired Differences					
			Mean	Std. Deviation	Std.Error Mean	t	df	Sig.(2-tailed)
Pair 1	PosSWG	PreSWG	1.26	1.60	0.29	4.33	29	0.00

According to Table 4, there is a significant difference, t (29) = 4.33, p= 0.00), between the pretest-posttest mean scores of SWG. Therefore, the second research question, which proposes productive manipulation of test practice does not enhance EFL learners' collocation learning, is rejected. Therefore, the second hypothesis is rejected.

4.3 Investigating the Third Research Question

To examine this question, an independent-samples t-test was run, the descriptive statistics of the results are shown in Table 5.

Table 5. Descriptive statistics for SRG and MCG in the posttest

	TP	N	Mean	Std. Deviation	Std. Error Mean
Collocation	MCG	30	15.36	2.46	0.45
	SWG	30	13.28	2.82	0.51

According to Table 5, the mean of MCG in the posttest (15.36) is higher than that of SWG (13.28). The results indicated that MCG outperformed SWG in terms of the enhancement in lexical collocation. Therefore, it was concluded that the selective or recognition mode of test practice manipulation as an independent variable in this study was more effective than that of productive manipulation of test practice in enhancing the learners' knowledge of lexical collocation. Likewise, the standard deviation value for MCG, according to the table, is less than the other group, meaning that there is less variability in the scores of MCG's participants compared with those of SWG participants. However, so as to determine whether there was a significant difference between the two groups' mean scores in the posttest, the results of the independent-samples t-test are presented in Table 6.

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Table 6. Independent-samples t-test for SRG and MCG in the posttests

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Collocation	Equal variances assumed	0.00	0.93	3.04	58	0.00
	Equal variances not assumed			3.04	56.95	0.00

Table 6 indicates that there is a significant difference, t (58) = 3.04, p= 0.00, between SRG and MCG. Therefore, the analytical data indicate that there is a significant difference between MCG and SWG in terms of their enhancement in lexical collocation.

5. Discussion

Considering the findings of the study, we concluded that there was a large gap between lexical collocation knowledge from sentence-writing test practice and multiple-choice test practice. Multiple-choice manipulation of test practice effect, as a selective or recognition task, outweighed sentence-writing mode of test practice input, as a productive task, on intermediate EFL learners' enhancement in collocation. Therefore, the instruction of multiple-choice test in formal classroom settings can play a facilitative role and expedite the process of developing lexical collocational knowledge. The results of the present study showed that students' knowledge of collocations enhanced through their being involved in selective test practice, supporting that multiple-choice test instruction could help EFL students learn and develop collocations more effectively.

The findings of this study are in line with Siyanova and Schmiitt (2008), Durant and Schmitt (2010), Zarei and Baniesmaili (2010), who revealed considerable enhancement in learners' knowledge of collocation, as a result of being instructed by two modes of selective and productive test formats manipulation, through which the efficacy of recognition tests outweighed. These findings are consistent with what Sonbul and Schmitt (2013) reported on the effectiveness of three input manipulations of enriched, enhanced, and decontextualized input on the learners' enhancement in collocation competence. The results of their study confirmed the outperformance of decontexualized condition of collocation treatment.

Furthermore, the results of the current research work are consistent with a number of studies conducted on the effectiveness of multiple-choice format of test practice on lexical items and collocation attainment. In this regard, the outcome of the study is in line with the findings of Mosoumi and Sadeghi (2020), Chan and Kennedy (2002), Hastedt and Sibberns (2005), Famularo (2007), In'nami and Koizumi (2009), Currie and Chiramanee (2010), Shaibah and van der Vleuten (2013), and Ferit Kılıçkaya (2019). The common point of the research findings is that learners showed significant differences in their attainment of lexical items through being exposed to two different manipulations of multiple-choice and productive test practices. It was also argued that the learners' enhancement in lexical items through the medium of selective test manipulation, namely, multiple-choice format, was significantly different from the other one.

Given the results of the present study, it is argued that its findings agree with Famularo's (2007) viewpoints, in that both studies enhanced the significant role and further effectiveness of recognition format of test practice manipulation

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over the productive technique of test input on learners' achievement in vocabulary. They reported that both techniques of multiple-choice and productive input of test made differences in learners' capacity for new and novel vocabulary, but the selective mode of test practice led to higher achievement in individuals' knowledge of lexical items. This result seems to agree with Hashemzadeh (2012) on the comparative investigation into manipulating recognition exercises (fill-in-the-blank and matching) and production exercises (paraphrasing and glossing) in immediate and delayed vocabulary retention of EFL learners. The results acknowledged that the L2 learners recalled more words through fill-in-the-blank exercise than other exercise types both in immediate and delayed tests.

The consistency of the findings of this study with the background of the previous studies are also shown by Liu, Lee, and Linn (2011), Shaibah and van der Vleuten (2013), Taylor and Lee (2012), and Reardon, Kalogrides, Fahle, Podolsky, and Zárate (2018). In this regard, reviewing the results of the studies conducted in this field would be valuable to show the efficacy of learners' exposure to selective mode of test format practice over the productive formats of test on the production and enhancement of novel vocabulary. The findings of this study accord with Webb and Kagimoto's (2009) research who examined the effectiveness of learning collocations in a traditional classroom context through formal instruction. To this end, the researcher's data-gathering instruments included both receptive and productive post-tests. The result of the study revealed that contextual learning played a significant role and could be known an effective approach for learning collocations.

The results of this study are, however, inconsistent with a number of the previous research works, the examples of which are the inconsistency of the findings by Hastedt and Sibberns (2005), Hickson, Reed, and Sander (2012), and Vosoughi and Mehdipour (2013). To specify the point, Hastedt and Sibberns (2005) showed no significant differences in learners' achievement in vocabulary and multiword components as a result of being manipulated by selective and productive modes of test practice, or in some cases only little differences were just observed between the two modes of instruction manipulation. Hickson, Reed, Sander Vosoughi, and Mehdipour (2013) indicated the learners' outperformance in novel vocabulary treated by production task. Inconsistent results were also disclosed by the studies of Zhang (2009) and Taherzadeh and Bagheri (2012), in that the findings of these studies indicated the effectiveness of sentence-writing mode of treatment in the production and attainment of new vocabulary.

The recommendations for creating and using multiple-choice mode of test practice manipulation from the assessment literature are well-aligned with the recommendations from the learning literature presented by Butler and Roediger (2008). The learners' higher achievement in lexical collocation as a result of being instructed by multiple-choice medium of test practice can be explained by referring to Little, Bjork, Bjork, and Angello (2012), arguing that using multiple-choice tests involves students in challenging activities allowing them to largely succeed. They stipulate that creating and subsequently evaluating the nature of items in multiple-choice mode draw the learners' attention to the thought process that students embark on to achieve the correct answer and make sure that it is productive and effective for their learning activity.

To add to the effective role of selective (multiple-choice) mode of test practice manipulation, Pachai, DiBattista, and Kim (2015) showed that when using a multiple-choice test for the purpose of instructional practice in learning contexts, a successful differentiation is made among students based on how well they know the material being tested and instructed. In practice, the arguing point, according to Little, Bjork, Bjork, and Angello (2012) is that the manipulation of this norm of test practice not only challenges learners but also allows them to succeed and have required results when they have the requisite knowledge, ideally culminating in a range of performance with a relatively high average. Considering the findings obtained, the learners' outperformance on selective or recognition type of instructional practice can be explained by referring to McCarthy and O'Keeffe's (2010), Kılıçkaya's (2019) and Read's (2012) viewpoints, indicating that multiple-choice structure of test practice and matching item formats result in better use of receptive knowledge rather than the productive formats and, thereby, linguistic contexts, in particular, foster the learners' ability of employing morphonological and lexical rules, which facilitates gaining and understanding of the meaning and the form of the target vocabulary.

6. Conclusion

This experiment was a comparative study of the effectiveness of multiple-choice and sentence-writing varieties of test practice on Iranian intermediate EFL learners' knowledge of lexical collocations. The findings of the present study showed significant differences between two modes of multiple-choice and sentence-writing instructional techniques affecting Iranian EFL learners' comprehension of lexical collocations. In other words, if treated with recognition mode

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of test practice, students become more engaged in the learning of the target language elements, and they take more active roles in the learning process.

6.1 Implications of the Study

In light of the findings of the study, the following pedagogical implications can be drawn for language teachers, EFL learners, and material developers. The results showed that there is a need for more attention to the teaching of collocations. The statistical analysis revealed that teaching collocations through constructing and creating selective mode of test manipulation results in a better learning of the words than presenting them using classical techniques. This method of teaching collocations can be an effective way for helping students remember the new words easily in multiple-choice items. Teachers and testers would be taking into account the practically effective importance of recognition-type activities in encouraging students to enhance their knowledge of lexical collocations and to construct and develop test items of this nature for stakeholders. Enabling learners to enhance their insight into and raising their awareness of lexical collocations as being made up of recurrent groups of words should be one of the major concerns of teachers in EFL contexts. The focus of this trend, as one of the most important aims, should be on eventually helping learners in the production of the collocations, resembling a native speaker's natural performance in the use of the language.

The material developers may also be able to contribute to the improvement of EFL learners' knowledge of collocations. It can be achieved by including materials that encourage the use of various activities and instructional techniques. In so doing, according to the findings of the study, material developers may actually consider the importance of incorporating selective types of test practice as instructional variety into teaching practice. It is a good substitution for the routinized activities and techniques of learning lexical collocation, namely, the lexical translation of collocations. This experiment was addressed to Iranian intermediate EFL learners. It is suggested that the future studies of similar nature address other proficiency levels of the EFL learners such as high school students, junior high school, or upper-intermediate learners. Through this study, the effectiveness of production (sentence-writing) test instruction versus recognition (multiple-choice test instruction) was examined on EFL learners' lexical collocation learning. The future experiments can examine the effectiveness of these two models exclusively on intermediate EFL learners' grammatical collocation learning.

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