Lexical and Grammatical Collocations in Writing Production of EFL Learners

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Lewis (1993) recognized significance of word combinations including collocations by presenting lexical approach. Because of the crucial role of collocation in vocabulary acquisition, this research set out to evaluate the rate of collocations in Iranian EFL learners' writing production across L1 and L2. In addition, L1 interference with L2 collocational use in the learner' writing samples was studied. To achieve this goal, 200 Persian EFL learners at BA level were selected. These participants were taking paragraph writing and essay writing courses in two successive semesters. As for the data analysis, mid-term, final exam, and also the assignments of L2 learners were evaluated. Because of the nominal nature of the data, chi-square test was utilized for data analysis. Then, the rate of lexical and grammatical collocations was calculated. Results showed that the lexical collocations outnumbered the grammatical collocations. Different categories of lexical collocations were also compared with regard to their frequencies in EFL writing production. The rate of the verb-noun and adjective-noun collocations appeared to be the highest and noun-verb collocations the lowest. The results also showed that L1 had both positive and negative effect on the occurrence of both grammatical and lexical collocations.

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Traditionally, in psychologists, linguists, and language teachers' points of view, vocabulary was considered secondary in importance for successful language learning and was treated as separate from grammar skill. While vocabulary teaching and learning were often given little priority, the importance of vocabulary acquisition has been recently recognized (Allen, 1983; Laufer, 1986; Coady, 1997; Zimmerman, 1997, & Shand, 1999). Lewis (1993), as one of the most competent scholars whose opinions have revolutionized the ELT world, stressed the importance of vocabulary in a broader area called lexical approach. According to this approach, an essential part of language acquisition is the ability to comprehend and produce lexical patterns and phrases as chunks; these chunks become the raw data by which learners perceive patterns of language traditionally thought of as grammar (Lewis, 1993). Certainly, this approach distinguishes between groups of individual words with fixed meanings and lexis which refer to word combinations that are stored in our mental lexicon. Accordingly, the lexical approach has directed considerable attention to institutionalized utterances and expressions including collocations which are necessary to acquire native-like competence in the second language. A collocation can be considered as a group of words that often go together in order to produce natural sounding language.

It seems that the lack of appropriate knowledge of combining words affects second language acquisition and as a result creates a lot of problems for L2 learners. According to Nattinger and DeCarrio (1992), "vocabulary learning is more than the study of individual words (p.104) ". In fact, learners who only acquire individual words will not achieve native-like competence in the second language. In other words, their collocational competence seems to be very limited. Consequently, it is essential to make learners aware of formulaic expressions and chunks including collocations. Identifying chunks is not often easy and will need a lot more time and effort. In this regard, L2 learners require a lot of

guidance in order to recognize, organize, and utilize appropriate collocations.

Possibly, one of the problematic aspects of collocation which results in committing errors would be cross linguistic influence; That is, there are variations among collocational structures of language but L2 learners make attempt to transfer collocational patterns of their mother tongue to the target language. Indeed, lacking collocational competence may induce L2 learners to translate L1 collocation into L2, supposing that there is a one- to-one correspondence between L1 and L2 collocational structures (Nesselhauf, 2003).

Since L1 interference may play a crucial role in productive skills such as writing in which the saliency of using collocations seems to be more noticeable, focusing on collocational structure in this skill is of central importance. Language learners should have more opportunities to encounter the typical linguistic forms and structures of academic discourse and learn to identify which words frequently co-occur in academic writing (Kawamato, Fujita, Kaneko, Morren, & Ohtake, 2005).

Accordingly, Tanja Deveci (2004) argued that since L2 learners memorize sets of words in isolation, they intend to utilize these individual words in their writings. Consequently, the learners' chances of utilizing appropriate collocations in productive skills including writing decrease. Higuchi (1999) indicated that one main reason why so many EFL learners did not progress beyond the elementary level in spite of their motivations for learning English is that they disliked making errors and posing problems. As a result, analysis of miss-collocations can be regarded as an effective way to assist L2 learners to cope with these difficulties.

Recently, a lot of studies related to collocations have focused on error analysis as well as its implications for teaching strategies for EFL learners. For example, Richard (1971) has claimed that error analysis can be done in order to recognize techniques employed by learners in their language learning to find out the sources and causes of learners' errors and to access information on general problems in language learning as an aid to language

teaching. Hence, error analysis in collocation may serve as an essential way to improve L2 writing proficiency.

Besides, we do not know much about the order of learning lexical and grammatical collocations. Studying different types of grammatical and lexical collocations may provide some insight into the order and pattern of their development in second language learning. By doing a systematic study and analysis of grammatical and lexical collocations, it can be also indicated if L1 collocations have positive/negative effect on providing L2 collocations.

Therefore, the other aim of this study was to investigate the effect of L1 collocations on L2 collocations which may lead to positive and negative effects on learning collocations.

The competent researcher who did not totally reject grammar was Lewis who has shaken the ELT world. He offered the importance of vocabulary in Lexical Approach. In his view, the grammar is equally important in teaching, and therefore, it is not the case to substitute grammar teaching with vocabulary teaching, but that both should be present in teaching a foreign language.

Lewis (1997) claimed that his lexical approach was not simply a shift of emphasis from grammar to vocabulary teaching, as 'language consists not of traditional grammar and vocabulary, but often of multi-word prefabricated chunks'. Chunks include collocations, fixed and semi-fixed expressions and idioms, and according to him, occupy a crucial role in facilitating language production, being the key to fluency.

As mentioned earlier, the term 'collocation' is used to refer to a group of words that belong together, either because they commonly occur together like take a chance, or because the meaning of the group is not obvious from the meaning of the parts, as with by the way or to take someone in(trick them) (Nation, 2005).

Smith (2007) claimed that aid remembering and using vocabulary, it is helpful to approach it in the form of collocations. As Lewis (2000) pointed out, knowing a word is much more a case of knowing how to use it and what words collocate with it than simply knowing what it means. He exemplified '*wound*' and

'*injury*', the difference being only their collocational range, for example '*a stab wound*' but not '*a stab injury'*.

Gitsaki (1996) underscored that the study of collocation should include grammar. Lexis and grammar cannot be separated and, consequently, two categories are defined as lexical and grammatical collocations, which represent two distinctive but related aspects of one phenomenon. Grammatical collocations usually consist of a noun, an adjective or a verb plus a preposition or a grammatical structure such as 'to+infinitive' or 'that-clause', e.g. by accident, to be afraid that. Lexical collocations do not contain grammatical elements, but are combinations of nouns, adjectives, verbs, adverbs such as reject an appeal, strong tea, hopelessly addicted (Bahns, 1993). A grammatical collocation, in contrast to a lexical collocation, is a phrase that consists of a noun, an adjective, or a verb plus a preposition or grammatical structure such as an infinitive or clause (Benson et al., 1986). Chomsky (1965) gave the following example of a grammatical collocation (a close construction in chomsky's terminology): decide on a boat, meaning 'choose (to buy) a boat', but on the other hand, decide on a boat, meaning 'make a decision while on a boat' is a free combination (a loose association in Chomsky's terminology). Native speakers of English feel that the components of decide on collocate with each other, and they will most likely reject violations of collocability such as decide at a boat.

Jabbour-Lagocki (1990) believed that English prepositions are notoriously difficult for ESL/EFL learners to master because of L1 interference. For native speakers, prepositions present little difficulty, but for a foreign/second language learner they are confusing and largely problematic. For instance, we say, *we are at the hospital*; or *we visit a friend who is in the hospital*. *We lie in bed but on the couch. We watch a film at the theater but on television.*

Since variety of grammatical collocations seems to be more limited than those of lexical ones, learners may feel they have the most freedom in combining lexical collocations. Therefore, collocational errors the learners are likely to commit are the

transfers of L1 elements in their combinations which unfortunately are not always acceptable collocations (Moehkardi, 2002).

Taiwo (2004) believed that learners' lack of knowledge of collocational patterns of lexical items makes them to be prone to all sorts of collocational errors, which can be more disruptive in communication than grammatical errors.

Nakamura (2003) discussed that in spite of the difficulties to acquire collocations there was considerable pedagogical value in raising young EFL learners' awareness of collocations and word order:

(1) Learners develop the habit of paying attention to chunks, rather than just individual words, when listening and reading;

(2) If they recognize combinatory possibilities, and are able to make informed guesses about what word comes next, they become more fluent listeners and readers which leads to better comprehension;

(3) Without conscious study of the language system, students seldom reach intermediate or advanced levels of proficiency in an EFL environment, which provides them with very limited language acquisition opportunities outside the classroom; and

(4) Through being instructed in collocation, students acquire vocabulary building skills such as the ability to list and categorize words.

Kim (2009), based on the study of use of Korean noun-verb collocations, suggested that collocations should be taught explicitly as a critical part of second language vocabulary learning. In addition, the results indicated that the starting points of teaching collocations should be raising learners' level of awareness about the collocation phenomenon, stressing on the importance of learning collocations to achieve native fluency and accuracy.

Generally, non-congruent collocations, collocations that do not have translation equivalents in L1 have been demonstrated to present more difficulty for learners than congruent collocations which have L1 equivalents. For instance, in Japanese, we take contact and pay sacrifice while in English; we make contact and

make sacrifice. These non-congruent collocations present more challenges for L2 learners than congruent items such as take responsibility or pay attention when other variables that affect the difficulty of collocations are controlled (Bahns & Eldaw, 1993; Granger, 1998; Koya, 2002; Murao, 2004; Nesselhauf, 2003, 2005).

A number of studies have investigated collocations, for example, Kaur and Hegelheimer (2005) examined whether the use of an online concordance program together with an online dictionary by 18 intermediate ESL undergraduates aided in the transfer of word knowledge to an academic writing task. The results indicated that there was statistically significant transfer of vocabulary knowledge to the writing task. They stated that formal writing in an academic setting required L2 learners to have a strong linguistic foundation, including a vast range of lexical skills. They called attention to the fact that L2 learners did not have as much exposure to the target language as native speakers do, so they had a more limited command of the language as well as of vocabulary. Native speakers of English learn new words all their lives through interaction with other speakers and exposure to the language in formal and informal situations, but L2 learners' exposure to and use of the target language is often limited. In addition, producing academic essays is different from writing personal accounts because the former requires transforming knowledge; L2 learners have to be aware of how to process information and transfer it by using effective vocabulary (Hinkel, 2004). Therefore, if these learners do not have a broad range of productive vocabulary knowledge, they cannot produce the types of writings expected of them in an academic setting.

Granger (1998), Howarth (1998), and Nesselhauf (2003) also conducted studies in which they analyzed the writings of advanced ESL learners. They identified deficiencies in learners' writing production. It is noteworthy that only Howarth was dealing specifically with academic vocabulary collocations; however, they all analyzed students' use of collocations in advanced learners' writings. They concluded that learners' lack of knowledge of

collocation affected the learners' writings. Moreover, the results reinforced the point that learners have difficulty collocating words.

Similarly, Mounya (2010), who investigated the role of teaching collocations in raising foreign language writing proficiency, argued that a strong linear correlation exists between writing proficiency and using collocations. He claimed to overcome the problem of word associations, collocational competence needs to be developed in order to achieve fluency and proficiency in English as a Foreign Language (EFL) generally and Foreign Language writing particularly. The development of students' collocational competence would result in the improvement of communicative competence. Consequently, proficiency in the foreign language would increase as far as the learners' competencies have developed. Thus, he recommended the adaptation of a Communicative-Collocational Approach to teaching writing which entails teaching writing through a communicative approach by developing students' collocational competence.

Given the significance of the related studies mentioned above, the present study was an attempt to examine collocations in Iranian L2 learners' writing. Observing students' writing as an instructor, the researcher has analyzed collocational errors that constantly occur in English essays and paragraphs of EFL learners which are under the influence of L1 collocational patterns. In addition, the researcher as a language teacher has also noticed that the rate of collocations in EFL writings was rather low as compared to other linguistic structures. It seems that computing the rate of collocations, comparing and examining the collocational errors in both grammatical and lexical dimensions, contribute to meliorate L2 learners' writings. Therefore, this study intended to scrutinize EFL learners' rate of production in writing from both dimensions of collocations: grammatical and lexical. To this end, the researcher posed the following research questions:

RQ1: What is the rate of grammatical collocations in Iranian EFL learners' writings?

RQ2: What is the rate of lexical collocations in Iranian EFL learners' writings?

RQ3: Is there any significant difference between the rate of grammatical and lexical collocations in Iranian EFL learners' writings?

RQ4: Is there any interference of L1 collocation in L2 grammatical collocation in Iranian EFL learners' writings?

RQ5: Is there any interference of L1 collocation in L2 lexical collocation in Iranian EFL learners' writings?

Method

Participants

200 EFL students at BA level from University of Kashan were selected through purposive sampling. In this kind of sampling, the researcher chooses the sample that satisfies his specific needs and purposes (Cohen, Manion, & Morrison, 2000, p. (3). The rationale behind this sampling was basically practical issues. These EFL learners' characteristics were more or less similar to typical EFL university students of Iran. All the learners were sophomore, majoring in English literature and translation. More specifically, 120 EFL learners were taking the paragraph writing course and 80 ones were taking the essay writing course. The first group (120 learners) were studying in the educational year of 2009 and the second (80 learners) were in the educational year of 2010. The participants were both male and female English learners and ranged in age from 19 to 21.

Instruments

Three kinds of writings were collected in the writing classes including assignments, mid-term papers and final exam papers.

Assignments

Assignments were used in order to evaluate the collocational rate of production. Totally, 120 paragraphs were written by 40 participants during the semester. Specifically, every participant

was required to write 3 paragraphs as their writing assignment during the semester. They were based on term requirements. In fact, EFL learners wrote assignments freely without time limitation, compared with mid-term and final exams where there was much time limitation.

Mid-term papers

The other type of material was mid-term papers. It included 40 essays written on one common topic. The EFL learners were asked to write a 200-word essay. Unlike paragraph assignments mentioned above, the learners had much limited time for writing essays. To write the essays, 60 minutes were allotted to the EFL learners. For this reason, it seems that writing essays was more challenging and represented the learner's writing ability under more restriction.

Final exam papers

Final exams were the main instrument of the study since the learners made serious attempts within time limit. Final exams included 40 English essays and 50 English paragraphs. The EFL learners were asked to write a 300-word essay and 100-word paragraph. The time limit allocated for the exam was 90 minutes. Indeed, the final exam was more demanding than the assignments and mid-term essays.

Procedure

The participants were asked to write the paragraphs and essays in two successive semesters (2009 and 2010). During the semester, the books titled paragraph development by Arnaudet and Barret (1990) and practical writer with readings by Bailey and Powell (1989) were taught in the paragraph writing and essay writing courses.

40 participants in the educational year of 2009 were asked to write three paragraphs on the topics of "Why is it difficult to write in English", "Three major causes of divorce" and "Night shift students". For every topic, they had one month time to write.

Indeed, they had more opportunities to refer to different resources and develop their paragraphs.

As their mid-term exam, 40 essays were written at the same educational year. The time limit that allocated for the exam was about 60 minutes. Meanwhile, there was a common topic "Death rate of car accident in Iran is high" for 40 EFL learners.

Next, a final exam was given at the end of the two semesters (2009 and 2010). The time limit allocated for the essays was 90 minutes on the common topic of "Modern technologies have had several effects on our way of learning". For paragraphs with the topic of "characteristics of a good partner" written by other learners, 60 minutes was also devoted.

It is noteworthy that the data collected including assignments and exams covered diverse topics to evaluate the collocation structures thoroughly. Furthermore, since the researcher intended to analyze the real rate of collocations in their writing productions, the EFL learners were asked to write these paragraphs and essays without being aware of the researcher's purpose.

Having collected the papers, the researcher began identifying collocational structures and phrases. Afterwards, the collocation was categorized in six groups:

1. *verb + preposition*
2. *adjective + noun*
3. *verb + noun*
4. *verb + adverb*
5. *be + adjective*
6. *noun + verb*

These six sub categories were divided into two main collocational groups: lexical and grammatical collocations. Five categories were lexical collocations. Verb + preposition collocations were grammatical.

In the next stage, the researcher had to find the most authentic source in order to evaluate EFL learners' collocations in their writing. To this end, Oxford Collocations Dictionary for

students of English (2002) was used. By referring to this dictionary, the researcher was able to separate the proper collocate words from improper ones. Furthermore, some structures that were not collocations including free combinations were extracted from the data. Then, frequency of the remaining expressions was calculated.

Besides, in order to evaluate the rate of different kinds of collocations the number of words, sentences and texts in each paragraph or essay were specified. Indeed, the number of words, sentences, and texts could show the rate of collocations in the learners' writing.

Data Analysis

After categorizing various collocational groups, the necessary statistical analyses were performed in order to extract the rate of grammatical and lexical collocations in the writing production of EFL learners. Because of the nominal nature of the data which was in terms of frequency counts rather than scores, the Chi-Square test was employed for the data analysis. Specifically, the probability level was selected (usually0.05 or 0.01). Then, the data was displayed in frequency tables.

Results and Discussion

As noted earlier, grammatical collocations involved only verb-preposition combinations in the present study. Lexical collocations consisted of five categories: verb-noun, verb-adverb, be-adjective, adjective-noun, and verb-noun. Table1 presents the rate of lexical and grammatical collocations in the writing samples.

Table 1
Rate of Lexical and Grammatical Collocations in 200 Writing Samples

Type of collocation	Total collocations	Rate of collocations per word	Rate of collocations per sentence	Rate of collocations per text	X^2
Verb-preposition	573	0.021	0.17	2.86	
Verb-noun	1388	0.05	0.42	6.94	
Verb-adverb	95	0.003	0.02	0.475	2027.85
Be-adjective	537	0.02	0.16	2.68	
Adjective-noun	1334	0.05	0.4	6.6	
Noun-verb	63	0.002	0.019	0.31	

$d_{f=1}$ $\alpha = 0.01$ (6.63490)

As pointed out in Table.1, the answer to the first research question regarding the rate of grammatical collocations was 0.021, 0.17, and 2.86 per word, sentence, and text, respectively. As for the second research question, the rate of verb-noun was 0.05, 0.42, and 6.94 per word, sentence, and text; the rate of verb-adverb collocation was 0.003, 0.02, and 0.475 per word, sentence and text; respectively. The rate of be-adjective collocation was 0.02, 0.16, and 2.68 per word, sentence, and text; respectively. The rate of adjective-noun collocation was 0.05, 0.4, and 6.6 per word, sentence, and text; respectively. Finally, the rate of noun-verb collocation was 0.002, 0.019, and 0.31 per word, sentence, and text; respectively. Therefore, the answer to the second research question was 0.1, 1.01, and 17.005 per words, sentences, and 200 texts, respectively. In addition, the answer to the third research question regarding the significant difference between the rate of grammatical and lexical collocations seems to be yes. According to the chi-square test (Table1) the critical value of X2 with 1 degree

of freedom is 6.63 for the 0.01 level. So, the researcher could be fairly confident that the obtained data ($X2 = 2027.85$) supported the claim that there was a significant difference between the rate of grammatical and lexical collocations in the writing production of EFL learners. Table 2 showes the frequency, percentage, and chi-square of total collocations in the writing samples.

Table2
Frequency, Percentage, and Chi-Square of Total Collocations Used in the Writing Samples

Type of collocation	Frequency and percentage of Correct collocations	Frequency and percentage of Incorrect collocations	Total	X^2
Verb-preposition	468(78%)	105(17%)	573	229.96
Verb-noun	1034(54%)	354(19%)	1388	333.14
Verb-adverb	67(47%)	28(19%)	95	16.01
Be-adjective	566(86%)	49(8%)	609	428.76
Adjective-noun	982(55%)	352(20%)	1334	297.52
Noun-verb	51(52%)	12(12%)	63	24.14

$d_{f=1}$ $\alpha = 0.01$ (6.63490)

As it was shown in Table 2, the frequencies of the verb-noun followed by adjective-noun collocations were the greatest among different categories of collocations. Table.3 indicated the frequency, percentage, and chi-square of L1 influence on the correct collocations used by the participants in their writing samples.

Table3

Frequency, Percentage and Chi-Square of L1 Influence on Correct Collocations Used by EFL Learners in 200 Writing Samples

Type of collocation	Frequency and percentage of L1 influence	Frequency and percentage of No L1 influence	Frequency and percentage of total collocations	X^2
Verb-preposition	358(78%)	102(22%)	460	142.46
Verb-noun	512(50%)	511(50%)	1023	0.0008
Verb-adverb	35(56%)	27(44%)	62	1.02
Be-adjective	476(87%)	70(13%)	546	301.88
Adjective-noun	507(40%)	771(60%)	1278	54.42
Noun-verb	31(65%)	17(35%)	48	4.08

$d_{f=1}$ $\alpha = 0.01$ (6.63490)

As shown in Table 3, there was a significant difference between the frequencies of correct verb-preposition, be-adjective, and adjective-noun collocations influenced by L1 and correct verb-preposition, be-adjective, and adjective-noun collocations not influenced by L1. In addition, Table 3 indicated that there was no significance difference between the frequencies of correct verb-noun, verb-adverb, and noun-verb collocations influenced by L1 and correct verb-noun, verb-adverb, and noun-verb collocations not influenced by L1. As the results showed, the answer to the fourth research question seems to be yes. As illustrated in Tables 3, the frequency of the correct verb-preposition collocations influenced by L1 was greater than the frequency of the correct verb-preposition collocations not influenced by L1. Moreover, frequency of the incorrect verb-preposition collocations influenced by L1 was greater than frequency of the incorrect verb-preposition collocations not influenced by L1. According to the chi-square test (Table3), there was a significant difference between the frequencies of correct verb-preposition collocations influenced by L1 and the correct verb-preposition collocations not influenced by

L1. Finally, the answer to the fifth research question seems to be yes.

The frequency of the correct verb-noun collocations influenced by L1 was greater than frequency of correct verb- noun collocations not influenced by L1. According to the chi-square test, there was not a significant difference between the frequencies of correct verb-noun collocations influenced by L1 and correct verb-noun collocations not influenced by L1(Table3).

The frequency of the correct verb-adverb collocations influenced by L1 was greater than frequency of correct verb-adverb collocations not influenced by L1. Chi-square test indicated that there was not a significant difference between the frequencies of the correct verb-adverb collocations influenced by L1 and the correct verb-adverb collocations not influenced by L1(Table3).

Besides, the frequency of correct be-adjective collocations influenced by L1 was greater than frequency of correct be-adjective collocations not influenced by L1. According to chi-square test, there was a significant difference between the frequencies of correct be-adjective collocations influenced by L1 and those of correct be-adjective collocations not influenced by L1 (Table3).

Moreover, Table 3 showed that frequency of correct adjective-noun collocations influenced by L1 was lower than frequency of correct adjective-noun collocations not influenced by L1. Also, there was a significant difference between the frequencies of correct adjective-noun collocations influenced by L1 and correct adjective-noun collocations not influenced by L1.

Finally, the frequency of the correct noun-verb collocations influenced by L1 was greater than frequency of correct noun-verb collocations not influenced by L1. According to chi-square test, there was a significant difference between the frequencies of correct noun-verb collocations influenced by L1 and correct noun-verb collocations not influenced by L1 (Table3).

Table 4 shows the frequency, percentage, and chi-square of L1 influence on incorrect collocations in the writing samples.

Table 4
Frequency, Percentage, and Chi-Square of L1 Influence on Incorrect Collocations Used in the Writing Samples

Type of collocation	Frequency and percentage of L1 influence	Frequency and percentage of No L1 influence	Total	X^2
Verb-preposition	81(73%)	30(27%)	111	23.42
Verb-noun	348(41%)	507(59%)	855	29.56
Verb-adverb	28(36%)	49(64%)	77	5.72
Be-adjective	45(53%)	40(47%)	85	0.028
Adjective-noun	307(45%)	378(55%)	685	7.34
Noun-verb	12(26%)	35(74%)	47	11.26

$d_{f=1}$ $\alpha = 0.01$ (6.63490)

As shown in Table 4, there was a significant difference between the frequencies of incorrect verb-preposition, verb-noun, verb-adverb, adjective-noun and noun-verb collocations influenced by L1 and incorrect verb-preposition, verb-noun, verb-adverb, adjective-noun, and noun-verb collocations not influenced by L1. In addition, Table 4 indicated that there was no significance difference between the frequencies of incorrect be-adjective collocations influenced by L1 and incorrect be-adjective collocations not influenced by L1.

Regarding the total rate of the grammatical and lexical collocations, it was noted that the rate of lexical collocations was higher than that of grammatical ones. The finding was consistent with the research done by Mahmoud (2005). In his research, 42 essays were written by male and female third-year Arabic speaking university students majoring in English. A total of 420 grammatical and lexical collocations were found. The grammatical and lexical collocations amounted to 84(20%), and 336(80%), respectively.

Furthermore, comparing 5 sub-categories of lexical collocations, it could be revealed that the rates of verb-noun and adjective-noun collocations were the highest, while the rate of noun-verb collocations was the lowest. The high rate of verb-noun

and adjective-noun collocations may be due to either the larger number of these categories than other ones, or similarities between L1 and L2 collocations.

As for the grammatical collocations, the frequency of the correct grammatical collocations was more than that of incorrect ones. Accordingly, the result may be interpreted in two ways: first, the high frequency of the correct grammatical collocations could be attributed to L1 positive influence. In other words, when there is no certainty in utilizing correct verb-preposition collocations, EFL learners might resort to L1 resources. As shown in Table 3, in most cases, L1 had a positive effect on utilizing correct verb-preposition collocations. It could be concluded that L1 played a more effective role in using correct verb-preposition collocations.

The next inference drawn from the data was that EFL learners might be more efficient in using correct verb-preposition collocations; because they have been exposed to this kind of collocations more than other ones and verb-preposition collocation has also fewer tokens than other categories. In other words, since the number of verb-preposition collocations is generally fewer than that of lexical ones, the higher frequency of the correct use seems to be natural and rather expected. EFL learners might acquire verb-preposition collocations better due to limited number of grammatical collocations and consequently higher exposure of EFL learners to this kind of collocations.

The results do not support the research done by Mahmoud (2005) that revealed the Arabic students produced 151(36%) correct collocations, 39(9.28%) of which were grammatical and 269(64%) incorrect collocations, 45(10.71%) of which were grammatical. Mahmoud (2005) argued that most of the incorrect grammatical collocations seem to be due to negative interlingual transfer from Arabic.

Another main finding of this study was that the frequency of correct verb-noun collocations was higher than that of the incorrect ones. It seems that use of verb-noun collocations by EFL learners was not much affected by L1 because only half of the correct verb-noun collocations were influenced by mother tongue (Table 3). In other words, it appears that L1 did not have a leading and decisive

role in creating correct verb-noun collocations. This finding may be interpreted by referring to the results obtained by Highuchi (1999): many Japanese EFL learners dislike making errors and problems in their production, hence they always write simple combinations in order to avoid making errors. As a result of using simple verb-noun collocations most of them may be correct. Highuchi (1999) suggested that students should be encouraged and given opportunities to write creatively without caring so much about collocational errors. EFL learners of this study also used simple verb-noun collocations in order to prevent committing errors. As a result of using simple verb-noun collocations most of them may be correct.

On the other hand, looking at Table 4 revealed that only 41% of the incorrect verb-noun collocations were influenced by L1 while a higher percentage was free combinations which were not affected by L1. Here again it is clear that L1 did not have a major role in generating incorrect verb-noun collocations.

These findings were consistent with the results of the research done by Martyńska (2004) that showed Polish students used correct verb-noun collocations (63%) in their exercises but in some cases the students resorted to their native language and its rules which resulted in producing incorrect verb-noun collocations, e.g. *ride a car*. In sum, it could be suggested that either EFL learners were proficient enough to use verb-noun collocations correctly without any need to resort to their L1 structures, or they avoided using more complicated verb-noun collocations in order not to commit errors. Even though most of verb-noun collocations produced by EFL learners were correct, it seems that EFL learners do not have profound and wide knowledge of verb-noun collocations.

The results of verb-adverb collocations indicated that the frequency of correct verb-adverb collocations was higher than that of incorrect ones (Table 2). It might be clear that although there was not a significant difference between the frequencies of correct and incorrect verb-adverb collocations, L1 had more positive and crucial influence on generating correct verb-adverb collocations.

The next possible view is that due to small number of verb-adverb collocations in comparison with other lexical ones, their frequency of occurrence is great. Perhaps EFL learners could learn to verb-adverb collocations more effectively because of the limited number of this kind of collocations.

This finding supported the results of the research done by Martyńska (2004) that showed Polish language learners utilized verb-adverb collocations up to 54% in their exercises. On the other hand, frequency of verb-adverb collocations in Table 4 revealed that only 36% of incorrect verb-adverb collocations were influenced by L1 while 64% were not affected by L1. That is, mother tongue did not make any significant impact on most of the verb-adverb collocations. This finding contributed to the suggestion that perhaps EFL learners were proficient enough to produce correct verb-adverb collocations.

Considering the results of the be-adjective collocations, it could be found that the frequency of correct be-adjective collocations was higher than incorrect ones. As compared to other lexical collocations, EFL learners might be more proficient in creating correct be-adjective collocations. However, the findings of Table 3 may also indicate that a large number of correct be-adjective collocations were affected by L1. That is, L1 had a considerable and positive effect on producing correct be-adjective collocations. Additionally, it may be suggested that due to simplicity of be-adjective collocations structure, this kind of collocation was acquired better and easier by EFL learners.

Moreover, the results of L1 influence on the incorrect be-adjective collocations revealed that most of incorrect be-adjective collocations were influenced by L1. In fact L1 also had a significant impact on generating incorrect be-adjective collocations. When L1 influence on both correct and incorrect be-adjective collocations was compared, it was revealed that L1 had more effect on the use of correct collocations than incorrect ones. In other words, although L1 influenced on both correct and incorrect be-adjective collocations, it played more leading role in creating correct be-adjective collocations.

Another finding of the study was related to adjective-noun collocations. More than half of this kind of collocation was correct. It appears that most correct adjective-noun collocations were not affected by L1 (Table3); consequently it could be found that L1 had not a significant influence on creating correct adjective-noun collocations. These findings were not consistent with research done by Martyńska (2004) which revealed that Polish language learners generated 64% of correct adjective-noun collocations in their exercises due to L1 transfer. Due to the fact that a large number of correct adjective-noun collocations were not affected by L1, it may be implied that EFL learners were competent enough to use correct adjective-noun collocations without resorting to their L1 structures. On the other hand, the results of L1 influence on incorrect adjective-noun collocations indicated that most of them were not influenced by L1. Indeed a large number of correct and incorrect adjective-noun collocations were not influenced by L1.

Looking at the results of noun-verb collocations, it could be seen that the frequency of correct noun-verb collocations was greater than incorrect ones. Indeed there was a significant difference between the correct and incorrect noun-verb collocations. Considering the frequency of L1 influence on noun-verb collocations, it was revealed that most of the correct noun-verb collocations were affected by L1. Therefore, it could be suggested that L1 played a crucial role in generating correct noun-verb collocations. This finding was not congruent with researches carried out by Martyńska (2004) demonstrated that Polish language learners applied correct noun-verb collocations up to 42%in their exercises. In fact Polish learners found this kind of collocation the most difficult one as compared to other collocations.

Furthermore, the results of the incorrect noun-verb collocations revealed that a limited number of this kind of collocation was influenced by L1. In other words, L1 did not have an important effect on producing incorrect noun-verb collocations. Therefore, it may imply that EFL learners were more proficient in generating this kind of collocation. Another explanation may lie in the small number of total noun-verb collocations which resulted in

their better acquisition EFL learners. That is, due to the limited number of total noun-verb collocations, EFL learners got greater exposure to this kind of collocation, and as a result used them correctly.

To sum up, positive L1 transfer and limited number of some collocations were possible explanations for the accuracy of using collocations by EFL learners.

Conclusion

The findings of the present study may lead to the view that one of the main objectives of the writing course should be collocation instruction. Each individual word may be known to the learners, but they probably do not know its whole collocation. This lack of collocational knowledge can considerably affect the writing skill. In other words, teachers should take into account the importance of collocations in their teaching and learning to ameliorate EFL learners' productive skills such as writing. Changing the learners' attitude towards collocation, particularly in more problematic parts, may broaden vocabulary skill. According to this research, the greatest problem of Iranian EFL learners in using collocation was related to noun-verb collocations. Teachers can concentrate more on this area and consider numerous classroom activities and exercises in order to promote the use of this kind of collocation, particularly in writing skill.

Furthermore, syllabus designer and material developers can benefit from the current study. Collocation is one of the most important and problematic parts of language learning for L2 learners. The reason for this is not that EFL learners are incapable of learning collocation, but most likely they have never been exposed in formal and explicit way to the lexical and grammatical collocations of target language.

In addition to direct teaching tasks, a bilingual list of collocations could be included in the course books. This is in line with the students' tendency to transfer collocations from their mother tongue (Persian). The English books used in Iranian high schools contain single word lists at the end of each unit. These

single words could be replaced by word combinations or collocations. Such bilingual lists of collocations might help in counteracting interlingual errors. They could be a source of input for direct acquisition. Since collocations are fixed units, as opposed to free single items, they could be listed with their Persian equivalents at the end of each unit or at the end of each course book instead of single word lists.

It is necessary to mention that translators can also profit from the current study. Because of the lack of collocational knowledge, serious problems are created in translation. So, translators should be aware of collocations and consider their equivalences in both L1 and L2 to enhance the quality of their translations. In addition to the monolingual collocation dictionaries (e.g., Oxford collocations dictionary for the students of English, 2002) bilingual English-Persian and Persian-English dictionaries of collocations are needed.

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