



Assessing Collocational Competence: Insights Derived from Libyan Learners of English in an EFL Context

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Abstract

This paper aims to investigate the difficulties Libyan undergraduate university English major students have in the use of verb-noun and adjective-noun collocations by looking at their performance in free production. Furthermore, twelve verbs and twelve adjectives identified in this research were investigated in depth as part of their combinations. To achieve this aim, a 250-word academic writing task was used to collect data from fourth-year university students at Tripoli University. The data were analysed using AntConc 3.2.1w (Anthony, 2007). After extracting the learners' collocations, four methods were used to determine the acceptability of learners' collocations in terms of conforming to native-like use. They were: (1) the Oxford Collocations Dictionary (2009), (2) the online British National Corpus (3) consultations with two native speakers¹, and (4) the acceptability-of-collocations survey, which was used to triangulate the above three methods. Overall, the results from the academic writing data revealed that (1) verb-noun collocations were more difficult for the participants than adjective-noun collocations; and (2) the participants' use of the twelve adjectives in adjective-noun collocations showed significantly more accuracy ratings compared to their use of the twelve verbs in verb-noun collocations.

Key words: *verb-noun collocations; adjective-noun collocations; collocational errors*

Introduction

Libyan EFL learners majoring in English generally do not sound like a native speaker when using the language, despite the fact that they have been learning English for about ten years by the time they graduate. One reason for this is that ESL/EFL learners encounter several difficulties in the use of collocations within their speech or writing in English (Fan, 2009, p. 111). For example, the incorrect or inappropriate use of words and expressions in learners' interlanguage, though they are grammatically correct, may still sound 'unnatural' or 'strange' such as **strong smoker* instead of *heavy smoker* (Mahmoud, 2005, p. 117). According to Selinker (cited in Ellis, 2008, p. 968), the term interlanguage refers to "the systematic

¹ According to Crystal (1997), the term native-speaker is used in the linguistic field to refer to "someone for whom a particular LANGUAGE is a 'native language' (also called 'first language', 'mother-tongue')". The implication is the acquisition of this language has taken place since childhood. Therefore, it can be safely asserted that a native speaker possesses the most reliable intuition and for that reason has the best judgement of how the language is used, making him/her the most trusted kind of informant.

knowledge of an L₂ which is independent of both these learner's mother tongue and the target language".

Accordingly, collocation is now considered an important aspect of foreign language learning, necessary for knowing how to combine words to make other special meanings and essential for all language use. Lewis (2000) highlights the importance of collocations in language use by proving that both native speakers of a language and successful EFL advanced learners have a high level of "collocational competence – a sufficiently large and significant phrasal mental lexicon" (p. 177). Furthermore, Yang and O'Neill (2009) reported that "[t]his competence plays an important role in helping them use a language fluently, accurately and appropriately" (p. 182).

In the Libyan context, very few teachers take into consideration the importance and value of collocations when planning their English language lessons. Hence, EFL Libyan learners often encounter huge problems in using English lexical collocations. They cannot explain themselves clearly in writing; for example, although perfect grammar might be used, problems concerning lexical choice (i.e. collocational use) may still continue. On this note, Hill (2000) explains that the language produced and used by learners "often sounds awkward and very intermediate" (p. 50). He goes on to argue that "students with good ideas often lose marks because they do not know the four or five most important collocates of a key word that is central to what they are writing about" (p. 50). Thus, collocational violations are "an old problem" and a frequent feature of learners' interlanguage (Hill, 2000, p. 50). The mastery of English collocations is consequently found to be a significant problem encountered by EFL/ESL language learners (Granger 1998; Howarth 1998; Nesselhauf 2003). As McCarthy (1990) argues, "even very advanced learners often make inappropriate or unacceptable collocations" (p. 13). Language learners in this case often fail to select and combine the lexical items in native-like production and usage (see footnote 1 for definition of native speaker) because they are unaware of the collocational patterns and restrictions. This is certainly the case for EFL Libyan learners. Because there are no generalizable collocational rules that govern the construction of these appropriate combinations of words, there is, consequently, a need for EFL learners to use conventions which have to be acquired rather than learned.

This study investigates learners' problems and difficulties in the use of two types of lexical collocation, i.e. verb-noun and adjective-noun collocations, according to Benson et al.'s (1997) classification of collocation. This includes discussing, in depth, learners' collocational

performance in academic written production, since “production data is publicly observable and is presumably reflective of a learner’s underlying competence” (Brown, 2000, p. 216). This approach – investigating learners’ written production with regard to collocation – is supported by Lewis (1997) who argues that by examining learners’ writing, it is possible to show that miscollocation is a frequent source of error. Lewis (2000) refers to the verb-noun combination as one of the most important types of lexical collocation. Furthermore, these two types of lexical collocation are the most commonly investigated in the literature (see the reviewed studies below).

Therefore, the goal of this paper is to provide a better understanding of the competence of EFL university students with regard to their use of verb-noun and adjective-noun lexical collocations in a Libyan context. The aims are as follows:

1. To determine which type of lexical collocation (verb-noun collocations or adjective-noun collocation) is more problematic for Libyan learners.
2. To ascertain whether there is a significant difference in using the verbs in verb-noun collocations and the adjectives in adjective-noun collocation.

The current study aims to answer the following research questions:

RQ1. Which type of collocation (verb-noun or adjective-noun) is more problematic for Libyan learners?

RQ2. Is there any significant difference in learners’ performance when using the 24 verbs and adjectives² identified in this research in verb-noun and adjective-noun collocations?

Literature review

Empirical research on collocation

Various studies already undertaken have concentrated on the difficulties and problems encountered by FL learners in the use of collocations in learning English. The studies below were classified according to their learning context in terms of research on the use of collocations by EFL learners and Arab EFL learners while learning English. My selection of these collocational studies is driven primarily by their relevance to my study in terms of context; that is, they investigated EFL learners’ use of lexical collocations in production, particularly verb-noun and adjective-noun collocations. They are divided as follows:

² The twelve identified verbs are *do, provide, acquire, gain, enhance, make, offer, take, give, get, have* and *require*. The twelve identified adjectives are *good, academic, high, higher, modern, current, practical, specific, basic, general, great* and *special*.



1. Research on the use of collocations by EFL learners, and
2. Research on the use of collocation by Arab EFL learners while learning English.

Research on the use of collocations by EFL learners

There have been a number of interesting studies in recent years focused on the collocational knowledge of EFL learners all around the world; for example, Bahns and Eldaw, 1993; Koya, 2005; Zarei, 2002; Nesselhauf, 2003; Wang and Shaw, 2008; Kuo, 2009; Bazzaz and Abd Samad, 2011 and Darvishi, 2011. For the purposes of this paper, I am going to include a review of some studies to show how the current study fills the knowledge gap in the collocational field.

Li (2005) conducted a study to investigate the collocational errors in the written production of 38 EFL learners in Taiwan. The learners' writing samples were of two types: an assignment and in-class activity. In addition, a questionnaire containing the twelve types which appeared in the learners' writing was administered to examine their perception of difficulties in using collocations. Three reference sources were used to analyze the students' collocational violations to supply suggestions for correction: The BBI Dictionary of English Word Combinations, the BNC and TANGO. The results showed that grammatical errors (64.4%) were more frequent than lexical errors (35.6%) in learners' deviant collocations. Furthermore, errors in the following collocation types: L₁ (V+N) and G8 (V+Prep+O / V+O+Prep+O) were the most frequent in learners' writing whereas errors in (Adj+to infinitive) were the least frequent. However a weakness of this study is that the researcher did not employ a native speaker to assess learners' collocations and did not mention how he dealt with those which could not be found in the above sources. He also did not indicate whether the texts being assessed were in written or spoken form.

Having similar aims to Nesselhauf's study (2003) and using similar methods to judge the acceptability of learners' collocations in written English, Wang and Shaw (2008) attempted to investigate the collocational errors of 100 Swedish students in the English Department of Stockholm University, Sweden, and 100 Chinese students from the foreign language school of Wuhan University, China. They were asked to write a short essay of about 200 words in class in 30 minutes. They investigated verb + noun collocations of common verbs: *have*, *do*, *take* and *make*. They used the BBI, the CCED, the BNC and a native speaker to judge the acceptability of learners' collocational patterns. The results showed that the two groups of students encountered different problems in using these common verbs, and made similar

types of error. However, the authors did not specify the register of their corpus for the benefit of the consulted native speaker to make his/her judgement accordingly.

Placing greater emphasis on written tasks within the EFL context like the above-mentioned researchers, Kuo (2009) also studied the use of collocation by 49 intermediate level EFL students in Taiwan. He collected 98 writing samples from the students (two topics were written up). His analysis concentrated on two types of collocation: verb + noun and adjective + noun. Kuo used three reference sources to analyze and assess the acceptability of learners' collocations: the BNC, collocation checker (<http://candle.cs.nthu.edu.tw/vntango/>) which is based on collocational errors gathered from Taiwanese learners and two native speakers. The results revealed that the students made more errors in the use of the verb+noun than with adjective + noun collocations. Therefore, he concluded that the "V+N type of collocation is more difficult for students to master" (p. 148). However, a methodological weakness of this study is that the researcher did not perform any statistical tests to determine which types of collocation were more problematic for learners. Instead he based his claim on the raw frequency outcomes of errors (see also Shamma, 2013). Therefore, his claim could be considered dubious. In the current research, I performed in-depth statistical investigations to determine which types of lexical collocations were more problematic for the learners.

Research on the use of collocation by Arab EFL learners while learning English

A number of EFL Arab researchers have examined Arab EFL learners' use of English collocations in production data, e.g. Elkhatib, 1984; Farghal and Obiedant, 1995; Al-Zahrani, 1998; Mahmoud, 2005; Al-Amro, 2006; Shehata, 2008; Dukali, 2010; Alsakran, 2011; Ahmed, 2012 and Shamma, 2013.

In an early study, Elkhatib (1984) investigated the lexical errors of four undergraduate Egyptian students. He analyzed their writing samples in order to identify their lexical problems, discover the causes of these problems, and ascertain whether the learners were more familiar with the material or with the language structure. The results showed that the students made eight main lexical errors, and that they could not make appropriate lexical collocations. He concluded that the main reason for the errors was unfamiliarity with collocations. This caused them to make such errors *shooting stones* and *do progress*.

Similarly, Mahmoud (2005) studied the learners' actual performance in producing English collocations. A list of topics was given to 42 Arabic-speaking English-major university

students to enable them to write an essay as a homework assignment about one of the topics. The results revealed that the EFL Arab learners had limited collocational competence. In addition, the findings showed that they committed several errors. Indeed, a total of 64% of the collocations they used were incorrect, and 61% accounted for inappropriate word combinations. However, the main weakness of this study was to give the writing task to the learners to do as a homework assignment. This may have had a negative impact on the validity of the data, since the learners could have used and accessed different resources and references to help them do the task such as dictionaries, books, the Internet or seeking help from other people. There was also no mention of the analytical framework followed to analyze the learners' collocations, nor was any indication given to native-speaker consultants regarding the register of the writing task. Another limitation of Mahmoud's small data study of 42 essays was that he made a large generalization of the limited results to all Arab EFL learners. In addition, he did not specify the size of the corpus, stating vaguely that the essays "ranged from one and half to two single-spaced pages in length" (p. 120). Like Li (2005), Mahmoud did not specify the register of their corpus (i.e. academic or spoken English) to the consulted native speakers to enable them to make sound judgements. Hence, it can be said that their results are questionable since register can be a very important factor in the process of judging the acceptability of learners' collocational patterns. Therefore, the current study aims to tackle those methodological weaknesses.

As can be seen from my review of the literature outlined above the research showed that collocations were problematic for EFL learners, as their collocational performance in many different contexts was consistently unsatisfactory. However, there were limitations to their studies. They did not investigate learners' collocational errors in academic writing an EFL context, particularly in Arab and Libyan contexts. Therefore, the current research remedied this particular shortcoming. Furthermore, a number of methodological issues were also revealed such as some studies did not take into account the drawbacks of using only the BNC and/or collocational dictionaries, e.g. collocational dictionaries are not comprehensive in the sense that they do not list every possible collocate of a certain word. Therefore, one of the innovative features of the current study lies in the creation and utilisation of an acceptability-of-collocations survey to assess the acceptability of learners' collocational patterns. Another methodological weakness in some studies is related to giving the writing task to the students to be done as homework. As explained earlier, this could have had a negative impact on the validity of the data, given that the learners could have made use of different resources and references to help them do the task. Therefore, the aim of this study was to address those methodological limitations in order to address this knowledge gap in

the collocational field, and, in so doing, establish a basis from which future studies may follow.

Collocation: the study definition

According to Francis and Poole (2009, p. v), collocations may be defined as a combination of two lexical items that frequently occur together in a language to “produce natural sounding speech and writing”, i.e. language that would be considered natural and acceptable to a native speaker. However, the scope of this definition needs to be expanded to incorporate a phraseological-based perspective which distinguishes collocations from other types of word combinations such as idioms and compound nouns. Another related area to be considered for defining collocations in this research is the grammatical framework (i.e. verb + noun and adjective + noun collocations; for further details see point 1 below). There are four principles that combine to form collocations that may be judged as acceptable and appropriate in terms of native-like performance, which I set out below.

1. Grammaticality refers to the syntactic relations of the components involved in a collocation which are verb-noun and adjective-noun collocations. For example, the following collocation does not conform to the grammaticality criterion: **He shrugged the shoulders*. This fails the grammaticality test because it includes a definite article instead of possessive adjective (i.e. *his*).
2. Substitutability refers to whether certain components (i.e. verb and adjective) of collocations can be substituted for synonyms or near-synonyms. On this note, McIntosh (1967) proposes two kinds of collocability. The first entails the recognition of whether certain synonyms are “mutually replaceable to produce English” (p. 310). He provides the following synonyms as examples: *short, low, small, little, and stubby*. He shows that only one of them could fit into the following sentence: *He took a _____ vacation*.
3. Semantic component refers to the selection of those lexical items which work best to convey meaning and are appropriate to the context. This entails the use of the collocating word which is included in the range or collocational set of the node. According to McIntosh (1967) the search for appropriate collocates for a given node is achieved by applying “the test of familiarity” (p. 310), i.e. he claims that native speakers have a range of possible collocates that go with certain nodes. A native speaker will choose a collocate from this range with which (s)he is most familiar, i.e. the most appropriate in a certain context. The notion of range is exemplified by the verb *shrug* which may collocate with *shoulders* but not with other parts of the body such as *stomach* or *arm*.

4. Conventionality is another principle in defining collocations in this study. It is a cultural phenomenon, i.e. the way in which certain words combine together as they emerge from the collective behaviour and norms of the speech community³ which establishes a convention that has to be memorized. For example, English native speakers use *running water* and not *moving* or *going water*. For this reason, I used the intuitions of native speakers of English as a further method for determining the acceptability of learners' collocational patterns.

To sum up, here is an example of an unacceptable collocation which was applied in the current study and which failed all four criteria: **He enjoyed fit educate* which should read as *He enjoyed a good education*. The following criteria are not met by the above collocation. First, in terms of grammaticality there are two errors, namely, missing determiner (*a*) and wrong word form (*education*). Second, with regard to substitutability, there are several possibilities for the placement of an adjective to accompany the noun (*education*) e.g., *good, beneficial, excellent* or *useful*. Here, the student selected the wrong adjective (*fit*). Regarding semanticity, the adjective *fit* represents, in semantic terms, the wrong choice of adjective in the given context. In another context the word *fit* might be more suitable, e.g. *a(n) fit, popular, extraordinary, excellent* athlete. Fourth, native speakers would instinctively reject the choice of adjective as well as the grammaticality of the collocation as it seems out of place in an academic context.

It should be noted that all the above principles were taken into consideration when making judgements using the OCD (2009), the BNC, consultations with two native speakers, and (4) the acceptability-of-collocations survey in order to assess the acceptability of learners' collocational patterns.

A collocation can reside within an extended structure, e.g., a phrase. Therefore, the previous definition of collocation is not sufficient for the purpose of the study. Hence, the analytical framework needs to be expanded because it is essential for EFL learners to be aware of the whole combination (i.e. lexical and grammatical elements) in order to match native-like usage, rather than simply knowing whether the two lexical items collocate or not. Taylor (1990) indicates that semantics and syntax are two key dimensions which constitute collocations, i.e. "knowing the syntactic behaviour associated with the word and also knowing the network of associations between that word and other words in the language" (p. 2). He

³ A speech community varies according to which part of the world English is spoken, e.g. American speech community. In this study, I assessed the acceptability of learners' collocations according to the speech community of Britain.

illustrates this point using the example of the verb 'undertake', which is usually a transitive verb, followed by article + noun, or pronoun and will, more often than not, appear in the context of transport with such words as 'lane', 'car', 'speed'. In this vein, Nesslhauf (2003, p. 231-232) argues that knowing which words combine, e.g., *get + permission*, *fail + exam*, is insufficient for learners to produce acceptable combinations. In other words, knowing the whole combination is important to enable them to achieve that aim e.g., *get permission (to)*, *fail an exam*). Hence, the acceptability judgment of learners' collocations not only entails judging whether the two lexical items (i.e. the node and collocate) combine and comply with native-like usage, but also entails judging the acceptability of the whole combination (i.e. verb-noun and adjective-noun phrase [NP] combination). This conforms to the grammaticality criterion discussed above. The noun phrase includes pre-modifiers of the noun such as articles, intensifiers and adjectives within the collocation / combination and/or in some cases a following preposition. The component parts of the noun phrase constitute the phraseological variations of verb-noun and adjective-noun collocations in constituency variation. For example, some of the collocational variations of the verb-noun collocation *make + difference* are *make a difference* and *make a huge difference*. Biber et al (1999) explain that "there are a few semantically light verbs - such as take, make, have, and do, - that combine with noun phrases to form set verbal expressions" (p. 428). Such combinations may include a subsequent preposition in some instances such as *take care of*. Apart from the light verbs, some of the investigated verbs may at times (but not always) require a following preposition according to the grammatical context, e.g., *offer something to someone* and *gain something from*. This was also applied in the case of adjective noun collocations such as a *good level of*.

Some components of the collocations mentioned above are grammatical words, e.g. articles and prepositions. These grammatical associations between words are referred to as colligations by Stefanowitsch and Gries (2003) who define them as "linear co-occurrence preferences and restrictions holding between specific lexical items and the word-class of the items that precede or follow them" (p. 210). In addition, Lewis (2000) defines colligations as "the way one word regularly co-occurs with a particular (grammar) pattern" (p. 137); for example, some verbs usually appear with a specific tense, or a noun might typically appear preceded by a possessive adjective, instead of an article such as *pass **my/your** driving test*, *It's **my/your/our** responsibility to...* (c.f. *I'll take **the** responsibility for ...*).

Hence, when a collocation and a colligation co-occur and combine in a phrase, they create a phrasal construction. According to Stubbs (2005), a phrasal construction may be defined as



a set of lexico-grammatical combinations which typically contain a stable lexical element at their heart, accompanied by other appropriate linguistic items (p. 1). In short, it may be described as a melange of collocations and colligations (lexical and grammatical) whose meaning may be determined by its communicative function.

The study

Participants

The participant cohort for the writing task consisted of 186 undergraduate EFL learners majoring in English at Tripoli University (in the Department of English). Of these, 90 were males and 96 were females, ranging in age between 21 and 23 years old. They were in their final year of a four-year undergraduate degree programme. All of them had taken the same academic courses in their fourth academic year. All the participants were native speakers of Arabic, sharing the same Libyan nationality and culture. They were all studying English as a foreign language. English is a compulsory subject within the curriculum at both preparatory and secondary level in Libya. Hence, all of them had received classroom instruction in EFL for a period of at least 6 years by the time they enrolled at the university. Furthermore, the students had been assessed as being at intermediate to lower-advanced level based on their mid-term exams.

Data collection method

The task was a formal written essay on the theme of education with a topic selected from the International English Language Testing System (hereafter IELTS) test. The topic was taken from a previous IELTS examination, which had been published in the public domain (Cambridge ESOL, 2009, p. 102). The topic was:

How do you think universities should educate their students? Should they provide knowledge and skills that students will need to use when they start work OR should they simply aim to make students more knowledgeable regardless of whether it is useful for their future careers?

Data collection procedure

The academic written data were collected during the first semester of the academic year 2013-2014 at Tripoli University, Libya. Both I and a lecturer were present at the time of conducting the study. The participants were informed of the purpose behind the written tasks, that they would be part of my ongoing PhD research and that their participation carried no risk to their academic aspirations. After asking the participants to sign a consent form to show approval of their agreement, they were told that they had the right to withdraw at any

time. They were then instructed to write an essay of 250 words within 45 minutes. The participants had no prior preparation time to perform the writing task. Each student was given instructions to write the essay individually, without any further discussion and without dictionaries.

Analytical framework for the writing task

In this study, Gass and Selinker's (2008) error analysis framework was adopted to analyse the learners' collocational patterns. Table 1 illustrates the main steps conducted in the process of generating and analysing the data. Furthermore, four methods were used to evaluate and determine the acceptability of the collocations: a) the BNC, b) the OCD (2009), c) consultations with two native speakers (a senior English Language teacher and an ordinary native speaker), and d) the acceptability-of-collocations survey which was administered to 100 native speakers of English in order to triangulate the judgements made according to the three methods.

Table 1. *Procedure for error analysis in the present study*

No.	Procedure of the analysis
1.	Data generation
2.	Identification of collocations: extracting learners' collocational patterns
3.	Classification of collocations and collocational errors
4.	Quantification of collocations and collocational errors
5.	Triangulation methods used to judge the acceptability of the participants' collocational patterns
6.	Conducting inferential statistics (independent samples t-test)

In the following section, I present a brief explanation of the various stages of analysis of the learners' collocational patterns.

1. Data generation: This phase involved generating the concordance lines for each investigated verb and adjective by using the AntConc Concordance Tool. I also investigated the distribution of all the searched words.

2. Identification of collocations: extracting learners' collocational patterns: The concordance lines were checked line by line manually to search for and identify the investigated words occurring as part of verb-noun and adjective-noun collocations, using the

BNC and the OCD (2009). Thus, the focus of the next stage of analysis was on the concordance lines containing learners' collocations only.

The two native speakers were then consulted. They were asked to evaluate the acceptability of all the combinations in the LLC. They were provided with enough context to aid their deliberations, according to the scale of acceptability above. In addition, they were also asked to double check the work done on the basis of the collocational dictionary and BNC. They were asked if they agreed with the judgement to put 'yes' and in the case of disagreement to write their suggestions. The next phase of examination entailed comparing the similarity and differences between native speakers' judgements and the work done on the basis of the two searched sources and making some modifications accordingly.

In terms of the acceptability of learners' collocational patterns, the assessment of the participants' collocations was executed in relation to typical native speaker production and use (naturalness) (as judged by using the four methods), particularly in an academic context as this study was mainly focused on analysing the participants' (Libyan EFL learners) collocations in academic written English. In addition, the term erroneous collocation refers not only to the wrong production of collocations i.e. where the two components of collocation do not go together (which can be comprehensible, yet, still not comply with native speaker convention), but also refers to the inappropriate usage of collocation in this particular context (i.e. academic register) as some of the participants' collocational patterns were deemed fairly acceptable in spoken language. In this vein, McCarthy and O'Dell (2005) point out that learners can sound strange to the native speaker when they say, for instance, "making your homework' or 'my uncle is a very high man'" (p. 4). Both of these phrases can be partially understood in context but they represent the kind of language which sounds "unnatural and might perhaps confuse" (McCarthy and O'Dell, (2005, p. 4).

3. Classification of collocations and collocational errors: The classification of collocations and their collocational errors were conducted at the same time to speed up the process of the analysis. I employed two criteria in this analytical phase of classification. They were: (1) Criteria for judging the acceptability of learners' collocational patterns. Verb-noun and adjective-noun collocations were classified according to certain criteria which were based on native-like use of language and in particular academic written English, which I subsumed under what I termed the 'scale of acceptability' (i.e. a) acceptable; b) partially acceptable; and c) unacceptable). As stated earlier, I used four methods to evaluate and determine the acceptability of the learners' collocational patterns. Secondly, criteria for



classifying learners' collocational errors were used. They were as follows: a) missing, b) superfluous, c) wrong or d) wrong word order.

4. Quantification of collocations and collocational errors: The occurrences of both acceptable collocations and erroneous collocations were counted. In addition, different types of collocational errors were counted. Then, the percentages and the frequencies were calculated.

5. Triangulation of the Methods Used to Judge the Acceptability of the Participants' Collocational Patterns: The acceptability-of-collocation survey taken from the participants' erroneous use of both verb-noun and adjective-noun collocations was administered to 100 native-speakers of English in order to triangulate the acceptability assessment of learners' collocational patterns. The participants' collocations were judged differently in the academic rating survey (i.e. acceptable) as opposed to the main study. These were to be amended in the main study as acceptable. Accordingly, the frequency of the verbs and adjectives were then amended and the accuracy percentages were calculated. Similarly, the occurrences of the collocational error types were amended and their percentages were calculated.

6. Conducting inferential statistics (independent sample t-test): This phase of the investigation included further analysis of the obtained results by using different descriptive statistics and an independent sample t-test (inferential statistics) in order to answer the first research question. The SPSS software was used in order to analyze the data.

Results

The results for the verb-noun collocations

The overall raw frequency of the investigated verbs in the Libyan learner corpus

Table 2 shows the overall raw frequency (including the occurrences of collocational and non-collocational use) of the twelve selected verbs in the LLC. In addition, their rank and distribution in 186 essays are included.

The results revealed that the verbs 'have', 'make', 'provide', 'give', 'do', and 'get' were of higher frequency and more well-distributed than other academic verbs such as the verbs 'gain', 'acquire', 'offer', 'require' and 'enhance'. The verb 'have', for example, was ranked in first position in terms of frequency and distribution with 410 occurrences in 164 essays. This high frequency of 'have' and the other verbs was due to the fact that they are typically used in many different contexts in language, (they are classified among the common verbs by

Biber et al., 1999, p. 367). However, their high frequency does not mean that the participants (Libyan learners) used these verbs correctly in their writing - there were many instances of inappropriate usage - as revealed by their occurrences in erroneous verb-noun collocations (this will be discussed in greater detail in the following section).

Not all occurrences of these verbs as shown in Table 2 included collocations. For example, the verb 'have' was used as an auxiliary verb in several sentences and as a modal in others e.g. *has been achieved*. Judging by my own experience as a learner and a teacher in the Libyan educational system, this suggests that Libyan teachers appear to be more successful in teaching grammar rather than vocabulary. Similarly, most of the examples of the verb 'do' illustrate its use as an auxiliary verb with a total number of occurrences of 137 out of 195. Another interesting case was the use of the verb 'require' as an adjective in *the required level of knowledge* whilst the expression *get it* was an instance of 'get' being used as part of an idiom.

Table 2. Overall raw frequency of the investigated verbs in the LLC

Verb	Total number of occurrences	Rank	Distribution
Have	410	1	164
Make	259	2	118
Provide	253	3	148
Give	209	4	112
Do	195	5	108
Get	169	6	95
Take	80	7	62
Gain	76	8	55
Acquire	49	9	46
Offer	49	10	39
Require	47	11	41
Enhance	46	12	39

The results of the Libyan students' overall performance of verb-noun collocations

Table 3 presents information about the learners' overall performance in producing verb-noun collocations for the twelve verbs under investigation in terms of their frequency of acceptable collocations and erroneous collocations, their ranking of frequency of use and their accuracy percentages. Table 3 shows that a total of 1369 collocational patterns were produced by the participants of the study. Of these, 686 were acceptable collocations whereas 683 were unacceptable collocations.

Table 3. *The participants' overall production of acceptable and erroneous verb-noun collocations*

Frequency ranking	Verb	Overall frequency of collocations	No. of acceptable collocations	No. of erroneous collocations	No. of students	Accuracy percentage
1.	Have	278	131	147	144	47.12
2.	Provide	213	117	96	128	54.9
3.	Give	190	100	90	110	52.6
4.	Make	181	73	108	105	40.3
5.	Get	152	53	99	96	34.8
6.	Gain	71	55	16	54	77.4
7.	Take	67	30	37	57	44.7
8.	Do	58	33	25	50	56.8
9.	Acquire	47	35	12	44	74.4
10.	Enhance	42	23	19	38	54.7
11.	Require	37	20	17	31	54
12.	Offer	32	16	17	26	48.4
Totals		1369	686	683		50.1

It is clear from the above table that the participants used 5 high-frequency verbs, i.e., 'have', 'provide', 'give', 'make', and 'get' in verb-noun collocations more frequently than the other seven verbs. They had an overall high collocational frequency, at more than 150 occurrences in every instance as used by more than half of the participants and were ranked from the first to the fifth position respectively. However, I discarded proportional representations in determining the ranking of collocational use since proportionally the most frequently used verb appeared in less than a quarter of the LLC. For example, the verb 'acquire' was used more in collocations than in other contexts (47 instances of collocational use out of 49 instances of overall raw frequency) by 44 students and 'enhance' (42 out of 46) by 38 students. Concerning accuracy percentage of collocational use, 'gain' was the most accurately used verb with of 77.4%, while 'get' was the least accurately used verb with 34.8%.

The verb 'have' was placed in the first rank according to the frequency of collocational use, with a total of 278 times. The participants' acceptable use of 'have' in verb-noun collocations appeared in examples such as *has many problems* and *had a chance* whereas other examples of collocations were erroneous, such as **have not very good doctors* and **have a responsible*. However, it did not record a high accuracy percentage (47.12%).

The results for adjective-noun collocations

The overall raw frequency of the investigated adjectives in the LLC

Table 4 presents the total occurrences for each adjective of the twelve selected in the LLC. The results of my analysis show that the most frequent adjective used was ‘good’, with 273 occurrences, followed by the adjective ‘modern’ with 97 occurrences. However, not all occurrences of these adjectives included adjective-noun collocations, for example, *good at writing* and *good for me* are instances of ‘good’ not being used as part of adjective-noun collocations.

Table 4. Overall raw frequencies of the selected adjectives in the LLC

Adjective	Total number of occurrences	Rank	Distribution
Good	273	1	124
Modern	97	2	69
Academic	90	3	71
Great	86	4	61
General	84	5	65
Higher	65	6	49
Specific	62	7	47
High	59	8	49
Practical	58	9	44
Basic	47	10	40
Special	40	11	33
Current	20	12	20

The results of the Libyan students’ overall performance of adjective-noun collocations

The results in table 5 below revealed that 793 adjective-noun collocational patterns were produced by participants. Of these, 491 were acceptable collocations whereas 302 were unacceptable or questionable collocations.

Table 5. Learners’ overall production of acceptable and erroneous adjective-noun collocations

Frequency ranking	Adjective	Overall frequency of collocations	No. of acceptable collocations	No. of erroneous collocations	No. of students	Accuracy percentage
1.	Good	200	124	76	103	62
2.	Modern	89	63	26	64	70.7
3.	Academic	87	58	29	69	66.6
4.	Great	65	14	51	54	21.5
5.	Higher	57	27	30	48	47.3
6.	High	53	27	26	45	50.9
7.	Specific	51	39	12	36	76.4
8.	General	47	40	7	37	85
9.	Practical	45	32	13	38	71.1
10.	Basic	44	30	14	33	68.1
11.	Special	36	19	17	31	52.7
12.	Current	19	18	1	18	94.7
Totals		793	491	302		61.9

As can be seen above, the adjective ‘good’ was placed in the first rank according to collocational frequency of use with 200 occurrences. It was also the best well-distributed adjective in the LLC with 103 students using it. In terms of accuracy percentages, ‘current’ was the most accurately used adjective in the LLC with an accuracy percentage of 94.7%, whilst ‘great’ was the lowest accurately-used adjective with 21.5%.

Statistical analysis of participants’ performance

I analyzed the results statistically using means and standard deviations and the independent sample t-test. I conducted this further stage of investigation to: (1) verify the claim that verb-noun collocations were more problematic for the participants than adjective-noun collocations based on their overall percentage of accuracy; and (2) discover if there were outliers which could affect the results. These statistical data were calculated and compared in order to answer the first research question, RQ1, which was concerned with determining whether verb-noun or adjective-noun collocations were more problematic for the participants.

Descriptive statistics for verb-noun and adjective-noun collocations

Table 6 shows the descriptive statistics for the two investigated types of lexical collocation.

Table 6. *Descriptive statistics for verb-noun and adjective-noun collocations*

Types of collocation		
Accuracy of verb-noun collocations	Mean	53.3433
	Median	53.3000
	Std. Deviation	12.39927
	Minimum	34.80
	Maximum	77.40
	Skewness	.784
	Kurtosis	.543
Accuracy of adjective-noun collocations	Mean	63.9167
	Median	67.3500
	Std. Deviation	19.17498
	Minimum	21.50
	Maximum	94.70
	Skewness	-.669
	Kurtosis	1.192

The statistics revealed that the participants performed better when producing adjective-noun collocations rather than verb-noun collocations. This was shown by the participants’ accuracy mean of producing adjective-noun collocations (M=63.91) which was higher than that of using verb-noun collocations (M=53.57). The difference between both groups was also

reflected in the median scores, since the median score of adjective-noun collocations (67.35) was higher than that of verb-noun collocations (53.3).

The boxplot of the accuracy percentages of the investigated verbs and adjectives in verb-noun and adjective-noun collocations

The boxplot was used to discover whether there were extreme scores of the accuracy percentages of the participants' use of the twelve verbs in verb-noun collocations. The boxplot revealed that there were mainly two outliers: the verbs *gain* and *acquire* in verb-noun collocations. Figure 1 presents the boxplot of the twelve verbs in verb-noun collocations.

Figure 1. *Boxplot showing the accuracy percentages of the twelve investigated verbs in verb-noun collocations*

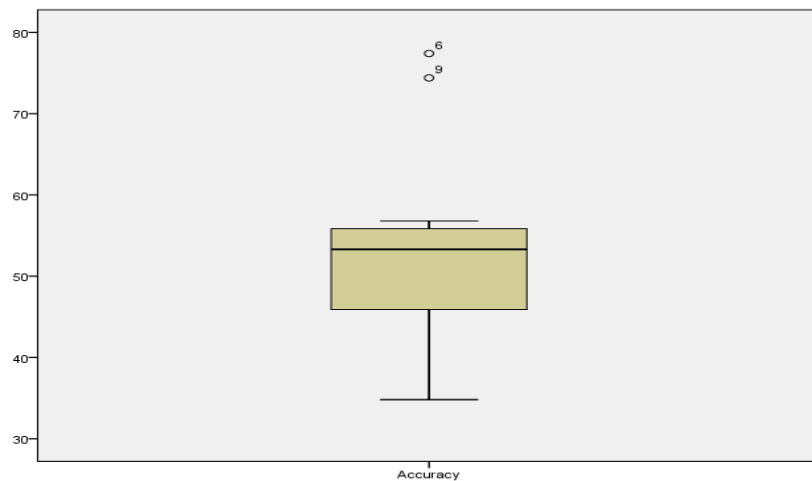
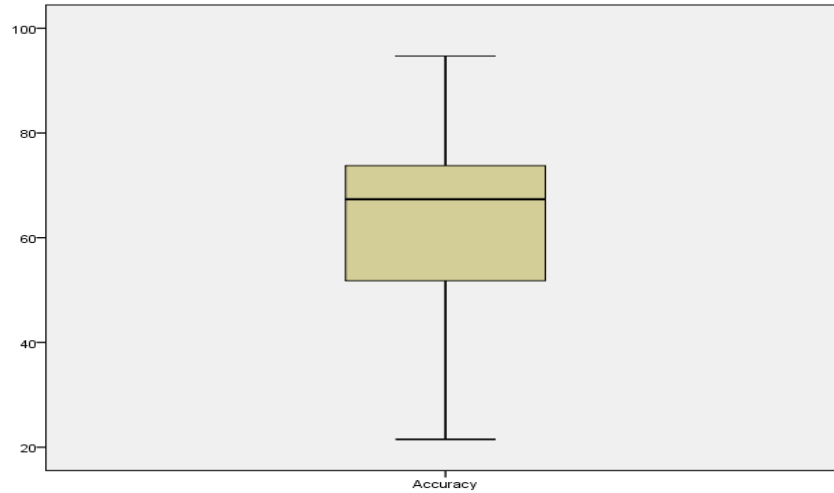


Figure 2 presents the boxplot of the twelve adjectives in adjective-noun collocations. The boxplot indicates that there are no outliers in the use of the adjective in adjective-noun collocations.

Figure 2. *Boxplot of the accuracy percentages of the twelve investigated adjectives in adjective-noun collocations*



Independent sample t-test after removing the two outliers ('gain' and 'acquire')

This section will present and illustrate the results of the second research question (RQ2) concerning whether there is any significant difference in participants' performance when using the 24 verbs and adjectives in verb-noun and adjective-noun collocations.

Table 7 shows the statistical group data of the 10 verbs without the outliers and the 12 adjectives in the two types of lexical collocation. The mean accuracy of the adjective-noun collocations (63.91) was higher than that of the verb-noun collocations (48.83). Furthermore, the standard deviation of adjective-noun collocations was larger than that of the verb-noun collocations.

Table 7. *The participants' mean scores of the two types of lexical collocations*

Types of collocation	No. of variables	Mean	Std. Deviation
Accuracy of verbs in v-n collocations	10	48.83	7.19
Accuracy of adjectives in adj-n collocations	12	63.91	19.17

The boxplot indicates that there are mainly two outliers: the verbs (*gain* and *acquire*) in verb-noun collocations, therefore, I conducted an independent sample t-test after removing these outliers to answer the RQ2 concerning whether there is a significant difference in learners' performance when using the 24 verbs and adjectives in verb-noun and adjective-noun collocations.

Table 8 provides the results of the independent sample t-test. The results reveal that the type of verb has an effect on the accuracy level $T(14.52) = 2.52, p=0.024 (p<0.05)$. The participants' use of the twelve adjectives in adjective-noun collocations showed a significantly greater accuracy level compared to their use of the twelve verbs in verb-noun collocations.

Table 8. *The independent sample t-test after removing the two outliers*

The independent sample t-test			
Accuracy of responses	t	df	Sig. (2-tailed)
	2.52	14.52	0.024

Discussion

According to the overall accuracy percentages, the results suggested that verb-noun collocations were more problematic than adjective-noun collocations, since the overall accuracy percentages (50.1%) of verb-noun collocations was less than that of adjective-noun collocations (61.9%). A total of 1369 verb-noun collocations were recorded in the LLC. On the other hand, the adjective-noun collocations had an overall frequency of 793.

Furthermore, the statistical group data of the 10 verbs without the outliers and the 12 adjectives in the two types of lexical collocation show that the mean accuracy of the adjective-noun collocations (63.91) was higher than that of verb-noun collocations (48.83). In addition, the results of the independent sample t-test revealed that certain types of verb had an effect on the accuracy level $T(14.52) = 2.52, p=0.024$. The participants' use of the twelve adjectives in adjective-noun collocations showed a significantly higher accuracy level compared to their use of the twelve verbs in verb-noun collocations. Therefore, it can be concluded that verb-noun collocations are more problematic for the participants than adjective-noun collocations.

Generally, the results for the first research question of this current study appear to be similar to the results of other studies such as Bahns and Eldaw, 1993; Al-Zahrani, 1998; Liu, 1999; Wang and Shaw, 2000; Kuo, 2009; Miyakoshi, 2009; Bazzaz and Abd Samad, 2011; and Phoocharoensil, 2011. In his study, Kuo (2009:145) investigated verb-noun and adjective-noun collocations as "they are typical errors occurring frequently in learners' production". Kuo's results reveal that students made more mistakes with verb-noun type of collocation than with the adjective-noun type. Therefore, he claimed that verb-noun collocations are more difficult for students to produce.

Similarly, Phoocharoensil (2011) found that with regard to lexical collocations, verb-noun collocations were more problematic than adjective-noun collocations for both high-proficiency and low-proficiency learners with 25.28% and 40.54% of errors in their produced verb-noun collocations respectively (p. 110-111).

It should be noted that Kuo and Phoocharoensil relied on frequencies and percentages of errors in making the claim that verb-noun collocations were more problematic than adjective-noun collocations. However, their results were not subjected to more rigorous statistical testing as was the case in this study. In the event, the results from this study generally uphold Kuo's and Phoocharoensil's but are deemed more reliable by virtue of the statistical tests I carried out.

In summary, the results of this study are in line with the results of most of the studies introduced in the literature review. They revealed that EFL learners have inadequate knowledge of English lexical collocations. For example, Mahmoud, (2005) investigated errors of collocations produced by 42 students in their essay writing. The results showed that there were 224 (83.27%) incorrect lexical collocations, and 210 (94%) of these errors were verb + noun combinations (p. 121). The remaining 14 (6%) were adjective + noun combinations. In addition, the current study's findings support Nesselhauf's (2003) study which indicates that the learners have difficulty in producing acceptable verb-noun collocations in their written essays. She explains that "even advanced learners have considerable difficulties in the production of collocations ... because the elements cannot be combined freely" (p. 237-238).

My study results, however, contradict some of the previously mentioned studies on collocation which posited that adjective-noun collocations are more problematic than verb-noun collocations, (e.g. Shehata, 2008; Alsakran, 2011). Both these studies investigated the collocational knowledge of ESL and EFL Arabic-speaking students of English. Shehata's results revealed that all students performed better on the verb-noun collocation test than on the adjective-noun collocations and Alsakran obtained similar results. Differences between the findings of the current study and those of the other two studies can be attributed to the following reasons: 1) the methods used by the two studies for investigation (i.e. gap-filling test) focused on sentence completion (i.e. providing only one lexical element of the collocation); 2) linguistic differences between participants; 3) the size of the samples were small in these two studies compared to the number of participants (186 students) in the current study; 4) the current study focused only on Arabic students in an EFL (Libyan)



context whereas the previous two studies included Arab students from both EFL and ESL contexts.

In reference to the type of method used for investigation, the methods of the previous two studies were different because they did not test free language production but instead concentrated more on language competence (recognition). The participants were at upper-intermediate to lower-advanced level in the current study whereas in the other two the participants were at advanced level. The fact that the sizes of the samples were smaller also makes their findings less generalisable and therefore less reliable. Concerning the context, learners in an ESL context may have better collocational knowledge due to the larger amount of direct exposure to the English language. Shehata's study revealed that the learners' collocational knowledge and their amount of exposure to the language had a positive correlation.

Conclusions

This body of research represents, to my knowledge, the first large-scale investigation of university learners' difficulties in the use of collocation in academic written English in the Arab world. Furthermore, it is the first large-scale exploratory study conducted in the Libyan EFL context. Thus, it is especially important to Libyan EFL teachers and learners in particular and English teachers and learners in Arab speaking countries in general. This study contributes to the enrichment of collocational studies and the difficulties encountered in this area in the general context and Arab context in particular.

Furthermore, there have been many studies concerning the difficulties encountered by EFL learners in the use of English collocations. The review of these studies revealed a number of methodological issues; for example, some studies did not take into account the drawbacks of using only the BNC and/or collocational dictionaries, e.g. the OC English to assess the acceptability of the collocations. Thus, this review has enabled me to add to the various research methods currently used in studies aiming to assess the acceptability of learners' collocational patterns (i.e. the acceptability-of-collocations survey). However, it should be noted that several researchers did incorporate consultations with native speakers into their methods to assess their learners' collocational patterns. Nevertheless, they did not indicate the register (i.e. academic or spoken English) in which the collocations appeared to help the consulted native speakers to make more informed judgments. On the other hand, this research put in place specifically established rigid criteria for the consulted native speakers to follow to enable them to be able to judge the acceptability of learners' collocations

according to the conventions of academic written English. Other researchers failed to conduct in-depth statistical investigations to determine which types of lexical collocation were more problematic for the learners. I therefore performed inferential statistics (i.e. independent sample t-test) to answer RQ1 to verify which type was more problematic for the participants.

In general, the obtained results from the current research support the claim that learners have insufficient knowledge of English lexical collocations as revealed by their error-strewn performance in producing them (see for example, Bahns and Eldaw, 1993; Farghal and Obiedant, 1995; Al-Zahrani, 1998; Wang and Shaw, 2000; Li, 2005; Mahmoud, 2005; Dukali, 2010; Darvishi, 2011; Ahmed, 2012 and Farrokh, 2012). Furthermore, the results revealed that verb-noun collocations were more difficult for the participants than adjective-noun collocations. In short, the participants made more errors when using verb-noun collocations than when producing adjective-noun collocations in their academic written essay.

Consequently, based on the obtained results, a number of recommendations have been suggested for Libyan EFL English language instructors to take into consideration when teaching and introducing English collocations to their students such as:

1. While teaching lexical collocations, particular attention should be given to teaching verb-noun collocations as the results confirmed that this type was more problematic for the participants than adjective-noun collocations.
2. Special attention should be paid to teaching the verbs 'make' and 'get' along with the adjectives; 'great' and 'higher' by highlighting their various noun collocates in verb-noun and adjective-noun collocations respectively. Hence, these verbs and adjectives have the lowest accuracy percentages in the LLC, in spite of the fact that 'make' and 'great' were placed in the relatively high position of fourth and 'get' and 'higher' were ranked in the fifth position in terms of overall collocational frequency.
3. Particular focus should be given to the teaching of delexicalized verbs in collocations by introducing their different noun collocates since the results showed that the participants produced high frequency verbs in their delexicalized sense interchangeably. In addition, it is vital to attract students' attention to the commonly mistaken collocations and in particular 'make' and 'do' such as "*make a mistake*" and not "*do a mistake*" and "*do a research*" and not "*make a research*" as the participants (Libyan learners) used these two verbs (i.e. 'do' and 'make') interchangeably or similarly and instead of other English verbs. This can be done by making use of native speaker corpus data such as British National Corpus (BNC) and COBUILD

Bank of English corpus which are excellent resources of common and typical English collocations. The teacher would need to identify appropriate collocations and then bring them to the attention of the students by means of concordance lines. Thornbury (2002) explained the benefits of recommending the use of corpus data to EFL teachers and learners as “it provides them with easily accessible information about real language use, frequency and collocation” (p. 68). In addition, those two corpora represent different types of English collocations in their most standard structures and offer a variety of collocations in both written and spoken language.

Suggestions for further research

Researching English collocations is still in its infancy particularly in the Arab context. Therefore, considerable attention is required from researchers and linguists to conduct more research to examine the nature of this linguistic phenomenon in-depth.

1. Future studies need to include a wide range of homogeneous participants from different universities and institutions in Libya in an attempt to enhance the reliability and validity of the findings.
2. It would also be of interest to assess the Libyan learners' knowledge of collocations at varied language proficiency levels along with a range of learning stages to further investigate their difficulties with different types of English collocation in written production.
3. Furthermore, more research is needed to investigate other types of lexical collocations. Further studies are needed to examine the learners' ability to use various types of grammatical collocations as well.
4. It would also be pertinent to investigate in-depth the influence of Learners' L₁ (Arabic) on their production of collocation, major causes of learners' collocational errors, the learners' strategies in using collocations and the effect of explicit and implicit instructions on collocation learning.
5. Further studies should be conducted to investigate why verb-noun collocations are more problematic than adjective-noun collocations. Furthermore, the investigations should entail considering which elements of the collocation (i.e. verb, noun or adjective) are more problematic for the learners.

Biodata

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References

- Ahmed, A. (2012). *English lexical collocation knowledge of Libyan university students*. Doctoral thesis. Bangor University. Retrieved from <http://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.590646>. pdf [Accessed 25 March 2015].
- Alsakran, R. (2011). *The Productive and receptive knowledge of collocations by advanced Arabic-speaking ESL/EFL learners*. MA thesis. Colorado State University. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.818.9152&rep=rep1&type=pdf>
- Al-Zahrani, M. (1998). *Knowledge of English lexical collocations among male Saudi college students majoring in English at a Saudi university*. Unpublished PhD dissertation. Indiana University of Pennsylvania, Pennsylvania.
- Bahns, J. (1993). Lexical collocations: A contrastive view. *English Language Teaching Journal*, 47(1), 56-63.
- Bazzaz, F., & Samad, A. (2011). The use of verb-noun collocations in writing stories among Iranian EFL learners. *English Language Teaching*, 4(3), 158-163.
- Biber, D., Conrad, S., & Reppen, R. (1998). *Corpus linguistics: Investigating language structure and use*. Cambridge: Cambridge University Press.
- Biber, D., Finegan, E., Johansson, S., Conrad, S., & Leech, G. (1999). *Longman grammar of spoken and written English*. Longman.
- Crystal, D. (1997). *A dictionary of linguistics and phonetics* (4th ed.). Blackwell: The United Kingdom.
- Darvishi, S. (2011). The investigation of collocational errors in university students' writing majoring in English. *IPEDR*, 18, 52-56.
- Dukali, A. (2010). Collocations in learners' English: a case study of collocation with respect to delexicalized verbs in Libyan university students' English writing. Unpublished MA thesis. Manchester Metropolitan University: The United Kingdom.
- Ellis, R., (2008). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.



- Elkhatib, A.S.A. (1984). A classification of the lexical problems of EFL/ESL students. Retrieved from <http://eric.ed.gov/?id=ED246691>
- Fan, M. (2009). An exploratory study of collocational use by ESL students: A task-based approach. *System*, 37(1), 110-123.
- Farghal, M., & Obiedat, H. (1995). Collocations: A neglected variable in EFL. *International Review of Applied Linguistics*, 33(4), 315-31.
- Farrokh, P. (2012). Raising awareness of collocation in ESL/EFL classrooms. *Journal of Studies in Education*, 2(3), 55-74.
- Francis, B., & Poole, R. (2009). *Oxford collocations dictionary for students of English*. Oxford: Oxford University Press.
- Gass, S. M., & Selinker, L. (2008). *Second language acquisition: An introductory course* (3rd ed.). New York: Routledge.
- Granger, S. (1998). Prefabricated patterns in advanced EFL writing: collocations and formulae. In A. P. Cowie (Ed.), *Phraseology: Theory, analysis and application* (pp. 145-160). Oxford: Oxford University Press.
- Hill, J. (2000). Revising priorities: from grammatical failure to collocational success. In M. Lewis (Ed.), *Teaching collocation: Further developments in the lexical approach* (pp. 47-69). London: Language Teaching Publications.
- Hong, A. L., Rahim, H., Hua, T., & Salehuddin, K. (2011). Collocations in Malaysian English learners' writing: A corpus-based error analysis, *3L: Language, Linguistics, Literature, The Southeast Asian Journal of English Language Studies*, 17(special issue), 31-44.
- Kuo, C. (2009). An analysis of the use of collocation by intermediate EFL college students in Taiwan. *ARECLS*, 6, 141-155.
- Li, C. (2005). *A study of collocational error types in ESL/EFL college learners' writing*. M.A. Thesis. Ming Chuan University, Taiwan.
- Mahmoud, A. (2005). Collocation errors made by Arab learners of English. *Asian EFL Journal*, 5(2), 117-126.
- Miyakoshi, T. (2009). *Investigating ESL learners' lexical collocations: The acquisition of verb+ noun collocations by Japanese learners of English*. Doctoral thesis. University of Hawai'i, Manoa. Retrieved from <http://eric.ed.gov/?id=ED513117>
- Nesselhauf, N. (2003). The use of collocations by advanced learners of English and some implications for teaching. *Applied Linguistics*, 24(2), 223-242.
- Phoocharoensil, S. (2011). Collocational errors in EFL learners' interlanguage. *Journal of Education and Practice*, 2(3), 103-120.
- McCarthy, M. (1990). *Vocabulary*. Oxford: Oxford University Press.



Stefanowitsch, A. and Gries, S. (2003). Collostructions: Investigating the interaction of words and constructions. *International Journal of Corpus Linguistics*, 8(2), 201-243.

Stubbs, M. (2005). The most natural thing in the world: Quantitative data on multi-word sequences in English. In *Conference presentation at Phraseology*. Louvain-la-Neuve, Belgium, 13–15 October 2005.

Taylor, L. (1990). *Teaching and learning vocabulary*. United Kingdom: Prentice Hall.

Thornbury, S. (2002). *How to teach vocabulary*. Harlow: Longman