
Using Corpus-Based Collocation Program to Promote Writing Skills of College-Bound EFL Majors

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Abstract

Recent research on English as a foreign and second language has indicated that collocations are crucial to mastering the language. Hence, its significance in EFL learners' writing skills is crystal clear. Therefore, the current research has been conducted to explore the impact of using a corpus-based collocation program on developing third-year faculty of Education English majors' essay writing. The research adopted the quasi-experimental method (a pre-post control group design). Sixty students in third-year faculty of Education English majors participated in the research that lasted eight weeks in the second semester of 2021-2022. They were assigned to a treatment group of thirty students, who received corpus-based collocation teaching in writing essays for 10 sessions, and a non-treatment group of thirty students who received regular methods in teaching essay writing. The research instruments included a pre-post essay writing test and a rubric for scoring the students' essay writing. Results of the research demonstrated that the treatment group surpassed the non-treatment group in the essay writing post-test. The results of independent sample t-tests at a significant level (estimated: 0.05) revealed a statistically significant difference between students' mean scores of the treatment and non-treatment groups in essay writing post-

test (in favor of the treatment group). Also, the results showed that using a corpus-based collocation program positively affected third-year faculty of Education English majors' collocational knowledge and use in their essay writing. In the light of the research findings, recommendations and suggestions for further research were offered.

Key words: Collocation, Corpus, Writing Skills, College-bound EFL Majors

استخدام برنامج في المتلازمات اللفظية قائم على المتون اللغوية لتنمية

مهارات الكتابة لدى طلاب كلية التربية - شعبة اللغة الإنجليزية

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مستخلص

لقد تم إجراء هذا البحث للتحقق من أثر استخدام برنامج في المتلازمات اللفظية قائم على المتون اللغوية لتنمية كتابة المقال لدى طلاب الفرقة الثالثة-شعبة اللغة الإنجليزية بكلية التربية. واتخذ هذا البحث المنهج شبه التجريبي القائم على التصميم القبلي والبعدي للمجموعتين التجريبية والضابطة. وقد تم مشاركة عدد ستون طالبا وطالبة من طلاب الفرقة الثالثة- شعبة اللغة الإنجليزية بكلية التربية- جامعة المنيا كعينة للبحث والذي استمر لمدة ثمانية أسابيع. و تم تقسيم الطلاب إلى مجموعتين، إحداهما تجريبية والأخرى ضابطة، حيث تكونت كل مجموعة منهما من ثلاثون طالبا. واشتملت أدوات البحث على اختبار قبلي-بعدي فى كتابة المقال. وأظهرت نتائج البحث تفوق طلاب المجموعة التجريبية على أقرانهم فى المجموعة الضابطة فى اختبار كتابة المقال البعدي. وقد لوحظ أن هناك فرق ذو دلالة إحصائية عند مستوى دلالة (0.05) بين متوسطى درجات الطلاب فى المجموعة التجريبية والمجموعة الضابطة فى اختبار كتابة المقال البعدي لصالح المجموعة التجريبية. مما يُشير إلى فاعلية استخدام البرنامج فى تنمية مهارات كتابة المقال لدى طلاب وطالبات المجموعة التجريبية. وفى ضوء تلك النتائج تم تقديم التوصيات والمقترحات لإجراء البحوث المستقبلية.

الكلمات الإفتتاحية: المتلازمات اللفظية، المتون اللغوية، مهارة الكتابة، الفرقة الثالثة-شعبة اللغة الإنجليزية بكلية التربية.

1. Introduction:

Writing skill is crucial in enhancing real-life classroom activities that can be utilized as an indicator to check how much the students have learned. Furthermore, mastery of the writing skill heightens students' strong feelings of progress. It provides them with confidence and marks their proficiency in a specific language. Meyers (2015)¹ stated that writing is an approach to producing natural language when one speaks.

Communication and message conveyance requires certain aspects to be used accurately for good language performance. Lexicon is one of the paramount elements contributing to improved English language skills performance. Lewis (2000) mentioned that language is grammaticalized lexis, not lexicalized grammar. In other words, lexis plays a primary function in establishing meaning, while grammar plays a secondary role in managing sense. Therefore, the lexicon should be a crucial component in teaching English in general and writing in particular.

McCarthy (2005) asserted that lexicon study is a key part of language learning because communication will break down, and meaning cannot be conveyed without vocabulary. Lewis (2001), with reference to Wilkins 1972, mentioned that the well-known view, "without grammar, very little can be conveyed; without vocabulary, nothing can be conveyed" (p.111). Milton (2009) asserted the necessity of vocabulary in language acquisition by stating that "words

are the building blocks of language and without them, there is no language" (p.3). In the same line, Hunt and Beglar (2015) postulated that vocabulary is the core of language use and perception.

The interrelationship between vocabulary and writing proficiency has been emphasized by (Roesle , 2022; Alqallaf and Ahmed, 2022). The researchers were unanimous that students who can identify and retrieve much vocabulary are more proficient in language skills than those who can only remember a few vocabulary items. They concluded that educators and learners of a foreign language believe that a wide vocabulary repertoire can enhance learners' language proficiency.

However, learning words in isolation does not assist learners in becoming successful, and proficient communicators as many components of language comprise prefabricated chunks (a language structure that combines the features of both lexicon and grammar and plays out a certain function of speech). Also, perfect knowledge of a word does not mean just knowing the meaning of the word but knowing the words that accompany it. Thus, learners should learn isolated words and their collocations to become language competent, which are considered significant for language use (Hill, 2010).

Collocation is a term rooted in the Latin verb "collocate," which means "to place together or to assemble" (Seretan, 2011, p. 7). It can be divided into "col," which means "together, with," "loc," which means "to place or put," "ate" (a verb suffix), and "ion" (a noun

suffix). In other words, collocations allude to words that are put together (Nation, 2003, p. 32). The term was explicitly introduced by Firth in 1957, who is the first linguist to introduce collocation. Firth embraced the lexical approach, which centers on the notion that words receive meanings from the words they co-occur with (Hsu, 2010).

According to Cheng (2019), meaning via collocation is an abstraction at the syntagmatic level and has little to do with the concept or idea approach to the word meaning. It means that the meaning is not understood from the individual words but from the collocational correlation between the frequently co-occurring words. Seretan (2011) underlined that notion, commenting that collocation is a relationship of affinity that connects words and is demonstrated by the current occurrence of words in context with one another, supporting his comment with a quotation by Firth in 1957 "You shall know a word by the company it keeps!" (p. 179).

There are two approaches to collocation studies: phraseological and frequency-based approaches. Nurmukhamedov (2015) pointed out that the phraseological approach defines collocations by concentrating more on the lexical, syntactic, and semantic restrictions that collocations carry. The phraseological approach utilizes native-speaker judgment and corpora to examine collocations. On the contrary, the frequency-based approach utilizes corpus evidence to recognize the co-occurrence of two or more words in a text within a short distance from each other.

Despite the researchers' discrepancies, they saw collocation as the tendency of specific words to be accompanied by other words and go together in a certain domain. These words have the meaning of arbitrariness and independence. Baker (1992) maintained that although the adjectives *quick and fast* have the same meaning, native speakers do not say "*fast sneakers*" but "*quick sneakers*." Also, *strike a balance*; instead of *making a balance*, *do a favor*; instead of *making a favor*, *take a vacation* instead of; *have a vacation*, *strong wind*; instead of *heavy wind*, *heavy rain*; instead of *strong rain*, *strong tea* instead of *heavy tea*; *fast food*; instead of *quick food*, *quick shower*; instead of *fast shower*. Based on their structures, these examples indicate different types of collocations.

McCarthy and O'Dell (2006) classified collocations into six types as in the following table:

Table (1)

Six types of collocations

Collocation Types	Examples
1 Adjective+ noun	bright color, verbal communication
2 Noun +verb	Companies merged – the economy boomed – the fog closed in
3 Noun + noun	a pang of nostalgia - a sense of pride, a surge of anger
4 Verb+ preposition	burst into tears, swelling with pride
5 Verb +adverb	Whisper softly, pull steadily – examine thoroughly – smile proudly
6 Adverb+ adjective	happily married, blissfully unaware.

Importance of teaching and learning collocations

The importance of teaching and learning collocations has been asserted by Hill (2001), Rao (2018), and En-nda and Koumachi (2022). They elucidated that EFL/ESL teachers should incorporate collocations in their teaching to raise students' awareness of collocation use and encourage them to memorize collocations. They added that collocational knowledge enhances students' writing skills.

According to Hill (2001), collocations are at 70% of everything we hear, say, read, or write, and they are ubiquitous in language. McCarthy et al. (2010) postulated that teaching collocations have been conducted to enhance students' lexical and grammatical knowledge, improving students' writing skills. Sinclair (2004) mentioned that collocations assist students in comprehending words' connotational meanings in context.

In his/her opinion, Seesink (2007) saw that teaching collocations can improve EFL/ESL students' written production. Collocations are habitually used in writing (e.g., conducting research by accident). El-Dakhs (2015) asserted that learning collocations are important because of their frequency of occurrence and their positive influence on language processing.

For teaching collocation, various approaches have been used, but the most effective one, according to many researchers, such as Sinclair, 2004; O'keeffe and McCarthy, 2010; Dang, 2020; Liu, 2020;

Csomay, 2020; Jaafar, 2022; Xodabande and Nazari, 2022; is the *corpus approach*. The corpus approach helps acquire collocations properly since it supplies chunks of language within context. In addition, it is a rich and authentic source of language data. Also, it is helpful for students to be greatly exposed to the language as they lack exposure to it.

The term "corpus," or "corpora," for plural, refers to a digital archive of written or spoken texts. Magazines, newspapers, and other written texts can be read on the computer through a CD, a scanner, or the internet. Conversations and other spoken materials are recorded. Afterward, the recordings are written down in the same words so that the transcribed texts can be fed into the computer database. Hence, it gives the possibility to analyze and dissect the language in the corpus with corpus software devices to see how people speak or write (McCarten, 2007).

1.1 Statement of the Problem

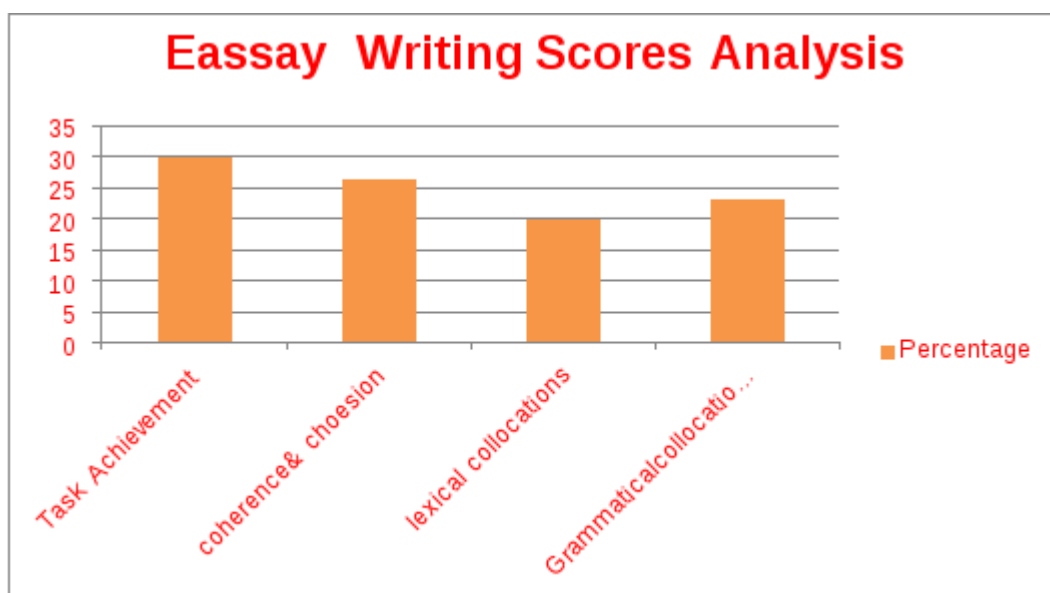
The problem of the present research springs from third-year faculty of Education English majors' lack of collocational knowledge and use in their essay writing. As a result, they performed poorly and received low scores on the pilot study essay writing tests. Results of the pilot study, which was implemented on a stratified sample of 30 students apart from the research participants, revealed that:

- Nine students (30%) could write full and effective essays that

satisfied all the requirements of the tasks,

- Eight students (26.6%) could write **logical, coherent, organized essays, following appropriate organizational patterns and using several cohesive devices appropriately,**
- Six students (20%) used an adequate range of vocabulary but with some inaccurate and unnatural lexical collocations,
- Seven students (23.3%) used a mix of simple and complex sentence forms; made some errors in grammatical collocations and punctuation, but they rarely reduced communication.

The following chart shows the percentage of students with essay writing scores.



More specifically, the present research addressed the following question: "*What is the impact of using a corpus-based collocation program on promoting third-year faculty of Education English majors' collocational knowledge and use in essay writing?*"

1.2 Objectives

This research attempted to:

- Investigate the impact of using a corpus-based collocation program on promoting third-year faculty of Education English majors' collocational knowledge and use in their essay writing.

1.3 Hypothesis

- There would be a statistically significant difference at a significance level (estimated: 0.05) between the mean scores obtained by students of the treatment group and those of the non-treatment group on the essay writing post-test (favoring the treatment group).

2. Literature Review.

2.1. Writing skill

Mahboob (2014) and Marlina and Giri (2014) postulated that writing is an essential skill in producing the English language, which is widely utilized for worldwide knowledge mediation. According to Hyland (2019), performance in language development is subject to progress in writing skills. Warburton (2020) claimed that a successful EFL/ESL writer's writing must be cohesive, logical, well structured, entertaining, and appropriately arranged, with a wide range of vocabulary and understanding of mechanics rules. However, writing is sometimes regarded as merely a component of teaching and learning grammar and syntax, which undervalues the nature and importance of writing and impedes its progress. As a result, the development of this talent attracts significant attention for its learning and teaching from the beginning of language education.

According to Nunan (2003), writing is an incredibly demanding cognitive activity that demands the student to have control over a variety of aspects. These elements range from the writer's academic background and personal interests to numerous psychological, linguistic, and cognitive processes. Hyland (2003) viewed writing as the most difficult aspect of learning a foreign or second language. It is founded on the strategic and proper use of language, with structural precision and communicative potential.

Kellogg (2001) opined that writing is a cognitive process that tests memory, thinking ability, and verbal command to express ideas successfully. The proficient composition of a text indicates successful learning of a foreign or second language (Nicker- son, Perkins, & Smith, 2014). Therefore, learning how to write has gained considerable importance over the last two decades due to two factors: its use as a tool for effective communication of ideas, and the extensive research work carried out in this area to examine various issues faced by foreign and second writers (Graham & Perin, 2007)

According to Haider (2012), student writers experience various writing challenges at various phases of their development. These issues can be divided into linguistic, psychological, cognitive, and pedagogical categories. Nik, Hamzah, and Rafidee (2010) broached that students struggle with English structural components since faulty structure muddles the substance and comprehension of the text, which

a reader deciphers through a mental process. Similarly, an incoherent text and a lack of syntactic, lexical, and grammatical mastery over text construction fail to express ideas, causing learners to lose confidence.

Poor writing skills are attributed to the teacher and the student. Teacher lacks a suitable pedagogical approach to teaching writing, in addition to teachers' inability to provide fast and successful feedback to students and encourage them. On the other hand, students confront several hurdles, including the consequences of first language transfer, a deficiency of reading, collocational knowledge, and collocation use.

Khonamri et al. (2020) opined that most communication relies on numerous combinations of a relatively small word bank rather than a large number of individual items. This inefficiency appears to be caused, in part, by a lack of collocational knowledge among EFL students and, in large part, by an inadequate emphasis on collocational patterns in their textbooks and the sort of training they receive. Furthermore, collocations have rarely been a major focus of teaching and research. They went on to say that most EFL students struggle with both oral and written production. These issues are caused by a lack of understanding about the firms that words keep; this is known as collocation.

Students' writing ability can be improved by teaching them collocations to be aware of them and have collocational competence. Collocational competence means the ability to precisely combine parts of language to produce fluent, correct, and stylistically appropriate

speech (Heikkila, 2005). Students face numerous writing challenges if they lack this competency. One of these issues is that students prefer to generate longer utterances since they do not know collocations that express exactly what they wish to say (Lewis, 2000).

From the literature mentioned above, the researcher concluded that collocations would assist students in understanding lexis and communicating thoughts more effectively when writing. Teaching collocations would give students a useful writing tool. Collocations have the potential to make writing easier, more precise, and more natural and native-like.

2.2. What is a collocation?

According to Richards and Schmidt (2002), collocations refer to how words are commonly utilized together. In English, for example, the verb 'perform' can be followed by a noun such as an operation but not by a debate. Celce-Murcia and Schmitt (2010) viewed collocations as words that co-occur together (e.g., black coffee, strong coffee), which are generated in chunks and frequently utilized by native speakers.

Similarly, McCarthy and O'Dell (2017) described collocations as words that co-occur together that native speakers find natural but create significant difficulty for English learners. For Walker (2011), collocations are the combination of two or more words that appear together or close to each other in both spoken and written speech.

Collocation is not necessarily arbitrary but has a core meaning and context. This definition provides a broader meaning because collocation is more than just the co-occurrence of individual words; contexts and associations between words determine it. According to Henriksen (2013), collocations are often repeated in two-to-three-word syntactic units (e.g., soft noise, tolerance for) as well as smaller parts of formulaic language.

Gablasova, Brezina, and McEnery (2017) identified two main research approaches to collocations: frequency-based and phraseology. The frequency-based approach uses statistical evidence to determine the strength of association inside a collocation, whereas the phraseology approach is concerned with the semantic features of collocations. From the frequency-based approach, it is concluded that collocations are co-occurring words regularly employed by language users, particularly native speakers. From the phraseology approach, it is deduced that collocations are fixed formations with their semantic transparency.

Despite the large variety of definitions, the current research focuses on two fundamental aspects of collocation: (1) its fixedness in forms with semantic transparency and (2) its prevalence in the communicative repertoire of native speakers. Thus, collocations are viewed as recurring fixed word combinations with obvious meanings utilized by native speakers.

2.3. Corpus-based Tools for Collocations

According to Liu and Lei (2018), a corpus is a systematic compilation of texts representing a language as it is used in speech, writing, or both. A contemporary corpus is a digital replica of these lines of spoken or written content. These corpora are typically available online and are referred to as online corpora. Google, COCA, and BNC are examples of well-known free corpora. Egbert et al. (2022) defined a corpus as a collection of authentic texts representing a language or domain.

Reepen and Simpson-Vlach (2010) stated that the employment of corpus-based tools or concordances with computers has appealed to many researchers and educators since the advent of modern Technology. Such tools are believed to increase language learning acquisition by encouraging both learners and teachers to pay closer attention to various features of collocations. According to Leniewska (2006), employing corpus tools for teachers serves two key purposes: (1) developing and adapting materials and (2) teaching academic vocabulary and collocations to students in classrooms. Online corpora and corpus-based tools were deemed effective for students to practice learning autonomy and writing correction (Dung, 2016).

The current research used two types of corpus in teaching collocations, which helped students promote their essay writing: Corpus of Contemporary American English (COCA) and Flexible Language Acquisition (FLAX).

2.4. Corpus-based approach versus Traditional approaches to collocation Instruction

Recognizing the significance of collocations in language competency, EFL/ESL teachers have developed a variety of classroom activities for teaching and memorizing collocations. In a book by Lewis (2000), s/he proposed various collocation exercises. Similarly, other studies on explicit collocation teaching in regular classroom settings have found that collocation teaching can promote students' writing skills (Liu, 2002; Khoja, 2019; Fei &Suphon, 2019).

However, the methods adopted to teach collocation have centered on grammar and the final product. It means that only introducing language in isolation is insufficient for language competency. Antle (2018) asserted that exposure alone to the chunk language is inadequate for students to acquire collocational knowledge. S/He added that because lexical items do not collocate freely, students have difficulty in language production despite their ability to comprehend the same collocations receptively. Consequently, providing students with the context in which a word is used is more beneficial (Anthony, 2006) and helps them overcome their difficulties with language production (Yoon, 2008). The corpus tools like concordances have the potential to do that.

The corpus tools have ample data and different word contexts to provide to the students, which in turn help them overcome their difficulties in producing language. Sinclair (2003) claimed that the

corpus-based approach is the most recent and informative approach, through which a huge amount of data can be rapidly analyzed. Similarly, Nesselhauf (2004) postulated that a corpus-based approach is beneficial since it shifts the focus away from users' language errors to users' language features and patterns.

To assert that the corpus-based approach is more advantageous than other approaches, McEnery et al. (2006) declared that it can provide objective data free from subjectivity or external influences since it depends on real examples. Hyland et al. (2012) state that the corpus-based approach is useful in conducting the five major issues of EFL/ESL learners: knowledge, language use, First language (L1) role, instruction, and linguistic contribution. Moreover, the relationship between collocation and corpus approach is strong as the conduct of collocation alludes that language is dominated by norms and patterns (Stubbs2007).

To cope with collocation and raise students' awareness of its use, Fox (2010) recommended using concordances as corpora tools in the classroom. Koosha and Jafarpour (2016) described concordance as a method of linguistic analysis based on the study of digital databases' structural and lexical patterns. They add that concordances might assist students in identifying collocation in diverse contexts, and as a result, they know how native speakers utilize it. Also, Willis (2011) stated that concordances assist learners in writing fluently and naturally.

Despite the positivity of concordance use, few studies have been conducted on their use in teaching collocations. Most of the studies on collocation learning focused more on grammatical than lexical ones. For example, Pirmoradian and Tabatabaei (2012) investigated the effectiveness of using the Collins Collocation Dictionary as a concordance tool in teaching lexical collocations to Iranian EFL university students. Results of the study revealed that the treatment group surpassed lexical collocations. Jafarpour et al. (2013) compared the impact of the corpus-based approach with the conventional approach in teaching collocation. They concluded that the treatment group who received instruction using BNC (British National Corpus) as a concordance tool outperformed the non-treatment group who received collocations teaching in a conventional method in understanding and production.

Similarly, Ashouri and Rahimi (2014) explored the impact of corpus-based collocation on EFL students' collocation learning. The participants were separated into a treatment group and a non-treatment group. The treatment group received instruction using corpus-based lexical collocation, whereas the non-treatment group was taught by the regular method. They significantly concluded the positive effect of using a corpus-based collocation program in developing collocation learning. Ucar and Yukselir (2015) explored the effect of corpus-based activities on the acquisition of verb-noun collocation in EFL classes. They concluded that there was a statistically significant difference

between the treatment group and the non-treatment group in favor of the treatment group. This signified that corpus-based activities significantly affected verb-noun collocations in EFL classes.

Also, Koosha & Jafarpour (2016) conducted a study to compare the data-driven approach with the conventional approach in teaching prepositions and their collocations with Iranian EFL adult learners. They divided the participants into a treatment group and a non-treatment group. They concluded that the treatment group taught by the data-driven method surpassed learning prepositions and their collocations.

2.5 Corpus-based Collocation and Writing Skill

Collocation knowledge and writing mastery have a strong and positive relationship. Howarth (2009) commented that ESL/EFL learners might become native-like writers if they become aware of the correct use of collocations and have competency in their use. EFL/ESL learners encounter difficulties in writing. They cannot decide the words that can be combined with the correct constituent language. As a result, their writings have many miscollocations (Hill, 2000). In his opinion, Hill (2000) opined that ESL learners often lose marks in their writing because of their inability to identify the most common collocations of the words that are essential in their writing. This problematic issue includes all students with different levels. This is supported by Youmei and Yun (2005) and Alzi'abi (2017). They conducted studies on collocations in Second Language writings and

concluded that even advanced learners have difficulties producing correct collocations in their writing.

McCarthy and O'Dell (2017) pointed out two benefits of collocations. First, they assist students in expressing their spoken and written ideas in a native-like manner. Second, students can gain lexical knowledge and expand their vocabulary. This view concurs with Wood (2002) that collocations facilitate language acquisition fluency (for both children and adult learners). Therefore, collocations as formulaic language are closely related to language acquisition and performance.

Granger and Bestgen (2014) discovered that low-level student writers had a tendency to overuse high-frequency collocations in writing. In contrast, high-level student writers tend to utilize low-frequency, strongly related collocations. Moreover, collocations are among the lexical resources that begin to emerge at IELTS writing rating band 7.0. Thus, among many other reasons, collocations could significantly influence students' writing progress, leading to greater test or exam scores. Jafarpour et al. (2013) claimed that teaching collocations makes writing easy, accurate, and natural. Consequently, students can write fluently and naturally. In the same vein, Li (2005) stated that the main reason for teaching collocation is that it leads to writing fluency.

Ying and Hendricks (2003) conducted a study attempting to raise the learners' awareness of collocation and then investigated its impact

on their writing. Results demonstrated that raising awareness of collocation increased the quality of the learners' writing. Also, Ying (2009) investigated the relationship between collocations and coherence in writing. Results showed a positive relationship between the correct use of collocations and coherence in writing.

In his/her study, Demir (2018) tried to increase the awareness of collocations to have native fluency in academic writing. S/He proposed using collocations in academic texts and compiling a list of collocations suitable for use in research articles written by non-native English writers. The data of the study were a hundred research articles written in English in the field of ELT by native speakers of English. The research results demonstrated that native speakers primarily depend on collocations while writing academic texts. There is a strong relationship between native fluency in academic texts and correct collocation use.

Although the positive results these studies reached and the students' improvements in their writing, the participants did not achieve high progress as they were introduced language out of context (Anthony, 2006). S/He added that students' writing would be more fluent, accurate, and meaningful if the students knew the collocations required for writing. Thus, in their study in 2006, Anthony used another approach; the corpus approach. S/He used the concordance tools in teaching collocation. S/He instructed the students to investigate the way in which language is utilized in natural contexts.

Results revealed that exposing students to language through context is more beneficial than just presenting language to them out of context. It enabled the students to apply collocations correctly, which in turn improved their writing productions.

In addition, Ashouri and Heidar (2015) investigated the effect of corpus-based collocation teaching on Iranian EFL students' writing skills. Eighty-four students were randomly chosen and placed into the treatment group and the non-treatment group. The treatment group studied 15 sessions of essay writing teaching based on corpus-based collocations, while the non-treatment group was taught by regular writing instruction. The research design was based on the pre-and post-test method. The tests were used to compare the two groups' writing fluency. Results of the test were analyzed to answer a crucial question regarding the correlation between the diversity of corpus-based collocations and the participants' writing. There was a statistically significant difference at a significance level of (0.05) between the mean scores of the treatment and non-treatment groups on writing skills. Teaching lexical collocations enhanced the writing elements of vocabulary and mechanics rather than grammar and fluency in essay writing. Results of the study revealed a significant positive correlation between the participants' use of various lexical collocations and their writing competency.

Also, Qura (2018) has investigated the impact of the corpus-based program on improving EFL university students' writing skills and self-

autonomy. S/He segregated the students into a treatment group who received the corpus-based instruction, which lasted for five weeks, and a non-treatment group who were taught by the conventional teaching method following the procedures of the teacher's guide she prescribed. The results demonstrated the positive effects of the corpus-based program training on the participants' writing abilities and language learning autonomy.

In the same vein, Fang et al. (2021) explored whether teaching senior secondary school students in China writing skills by corpus-based method could develop their vocabulary use, especially the use of collocations in their writing for the International English Language Testing System (IELTS) test. The participants were twenty-two students who were planning to take the IELTS exam. Corpus of Contemporary American English (COCA) and Word and Phrase were the corpora that the participants mostly utilized to master various search functions. Pre and post-writing tests were administered to determine the impact of corpus training. In addition, a questionnaire and interviews were employed to collect students' viewpoints and attitudes. Results showed that students enhanced their ability to choose appropriate words after three corpus training sessions, and their attitudes towards corpus use were positive.

Additionally, Akhter and Nordin (2022) explored the effect of English collocations on creative writing skills and the effect of the English Newspaper corpus to develop the collocation knowledge of

EFL secondary school students in Punjab, Pakistan. The research used a quasi-experimental design. Two groups of students participated in the research. Results of the research revealed that the participants had inadequate collocational knowledge. The corpus-based collocation method proved significantly efficacious and assisted the experimental group in promoting their collocation knowledge and creative writing. Also, the results revealed that the collocation approach added significantly to creative writing. Consequently, the study findings indicated that the corpus-based collocation intervention considerably impacted the participants' performance in expressing their knowledge creatively. The research implied that collocation knowledge is paramount in promoting EFL secondary school students' creative writing.

3. Methodology

3.1 Participants

The research participants were sixty students enrolled in third-year faculty of Education English majors during the second semester of 2021-2022. The two groups were assigned to a treatment group, which consisted of thirty students, and a non-treatment group, which consisted of thirty students. The treatment group students were taught using a corpus-based collocation teaching in writing essays in 10 sessions, whereas the non-treatment group students were taught using the regular method of teaching writing, such as the product approach, which depends on the students' production without teaching them

lexical and grammatical collocations, word combinations, coherence, cohesion, or the organization skills.

3.2 Instruments

To achieve the research objective, the researcher developed an essay writing test which was used as a pre-test and a post-test. The essay writing pre-test was used to identify the students' level of collocational knowledge and use besides their collocational errors and ensure that students of both groups were at the same level before beginning the treatment. Thus the progress achieved by the treatment group could be attributed to the program they have been exposed to. As a post-test, it was used to investigate the effect of using a corpus-based collocation program on promoting the essay writing skills of that group (treatment group). In both tests, students were required to write essays on 'Technology and its impact on social life. As for scoring reliability, it was made sure by training three raters to utilize the rubric in marking students' essay writing. Each rater marked the essays on his own. The average of the three raters' marks was taken.

3.3 Variables of the study

A - The independent variable: A corpus-based collocation program

B - The dependent variables: Writing skills

3.4 The Study procedures:

The researcher followed the following procedures to collect data for the study:

1) Reviewing literature and studies related to collocations, corpus, and writing skill to prepare the research literature review. 2) Deciding the educational content used in the program (seven units) from 'English Collocations in Use-Advanced' Book by Felicity O'Dell & Michael McCarthy, 2008, Cambridge University Press. 3) Deciding the instructional design (ADDIE) to present the educational program. 4) Designing the research instrument (a pre-post essay writing test and establishing its validity and reliability by the jury. 5) Selecting the subjects from the third-year faculty of Education English Majors, Minia University, during the second semester of 2021-2022. 6) Getting the approval of the College Dean to conduct the research. 7) Pre-testing the treatment and non-treatment groups to measure essay writing skills on April 4, 2022.

Table (2)

Means, standard deviations, t-value of the treatment and non-treatment groups in the pre-performance of essay writing test

Essay Writing Test		Treatment Group(N= 30)		Non-treatment Group(N= 30)		df	t-value
Performance Area (Skills)	Scores			mean	S t . d v		
Task Achievement	5	5.8	0.76	2.60	0.49	58	0.76
Coherence and cohesion	5	5.8	0.19	2.03	0.61	58	0.19
Lexical resource	5	5.8	0.37	1.60	0.67	58	0.37
Grammatical range and accuracy	5	5.8	1.03	1.96	0.61	58	1.03

Total score	20	58	0.80	7.90	2.21	58	0.80
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Tabulated t at a significance level (0.05) = 2.02

Table (2) shows no statistical difference at a significance level

(estimated: 0.05) between the mean scores of the treatment group and the non-treatment group on the pre-performance of the essay writing test. The calculated t -values in all the sub-skills and the total score of the test were lower than its tabulated value. This means the two group subjects were homogenous in their essay writing level before implementing the treatment.

8) Implementing the treatment on April 11, 2022. The treatment group received corpus-based collocation teaching in writing essays, while the non-treatment group received teaching by the regular method. 9) Post-testing the treatment group and the non-treatment group students on June 8, 2022, to measure their progress in writing essays after conducting the treatment. 10) Processing statistical data using SPSS Statistics for Windows, Version 23.0 (IBM SPSS Statistics for Windows, Version 23.0. Armonk, NY: IBM Corp). Cronbach's Alpha, Mean scores, Standard deviations, Independent Samples t -Test, Paired Samples t -Test, and Cohen's D were used. 11) Analyzing data for finding out the research results, interpretations, and discussion. 12) Offering some recommendations and suggestions for further research in the light of the results.

Findings and Discussion

The results of the analysis of the post-test scores are shown in table 3.

Table (3)

Means, standard deviations, t-value of the treatment and non-treatment groups in the post-performance of essay writing test

Essay writing Test		Treatment Group(N= 30)		Non-treatment Group(N= 30)		df	t-value
Performance Area (Skills)	Scores	mean	St. d v	mean	S t . d v		
Task Achievement	5	4.00	0.64	2.76	0.50	58	8.26
Coherence and cohesion	5	3.60	0.56	2.43	0.62	58	7.58
Lexical resource	5	4.33	0.60	1.73	0.69	58	15.48
Grammatical range and accuracy	5	4.36	0.55	2.03	0.61	58	15.41
Total score	20	16.33	1.44	8.50	2.29	58	15.65

Tabulated t at a significance level (0.05) =2.02

Table (3) shows a statistical difference at a significance level (estimated: 0.05) between the mean scores of the treatment group and the non-treatment group favoring the treatment group in the post-performance on the essay writing test. The students' scores showed high development in essay writing skills, where the calculated t-value in each sub-skill and the whole test was greater than its tabulated value.

4.1 Discussion of the findings:

The research results demonstrated that the students in the treatment group, who received corpus-based collocation instruction, surpassed the non-treatment group who studied

through the regular method in the post-test of essay writing. The research results are in agreement with Ying & Hendricks (2003), Li (2005), Ying & Hendricks (2013), Granger & Bestgen (2014), Ashouri & Heidar (2015), Demir (2018), Qura (2018), Fang, et al. (2021), and Akhter & Nordin (2022).

These results can be attributed to the positive effect of using corpus-based collocation instruction on increasing the awareness of collocations and their use in essay writing, which led to the proficiency of students' writing. The awareness of collocations, specifically strong lexical and grammatical collocations, provoked students' attention to use them in their essay writings. As a result, students' writing was easy and natural. This is supported by Jafarpour et al. (2013), who claimed that teaching collocations makes writing easy, accurate, and natural. Consequently, students can write fluently and naturally. Also, Li (2005) stated that collocation knowledge and use leads to writing fluency.

Additionally, collocation knowledge and use could enhance coherence in writing. This is in line with Ying (2009), who investigated the relationship between collocations and coherence in writing and found a positive relationship between the correct use of collocations and coherence in writing and the identification of the referents, and finding the meaning of words would be feasible. Moreover, collocation knowledge and use could lead to native fluency in writing. Similarly, Demir (2018) concluded that native speakers

primarily depend on collocations while writing academic texts. There is a close relationship between native fluency in academic texts and the correct use of collocation.

Over and above, corpus-based collocation might help students identify various contexts in which collocations are used. The collocations identification in contexts might assist students in improving their performance in expressing their knowledge creatively. This result comes with what Akhter and Nordin (2022) found out. They concluded that the corpus-based collocation intervention significantly affected the student's performance in conveying their information creatively. In addition, collocation knowledge played a paramount role in promoting EFL students' writing skills.

5. Recommendations and Suggestions for Further Research

5.1 Recommendations:

In the light of the research findings, the following recommendations can be offered.

- 1- Applying corpus-based collocation instruction in different educational stages.
- 2- English Language teachers should incorporate collocations in teaching and adopt various activities to raise students' collocational knowledge and competence.
- 3- Training teachers on how to utilize corpus tools in teaching collocations to help students be aware of collocations in various contexts and hence use them in essay writing.
- 4- Improving the students' technological skills since the

internet and corpus-based method positively affect learning collocations. 5- Curriculum designers should incorporate collocation in the English language syllabus of all educational stages due to its paramountcy in raising language proficiency in general and promoting productive language skills. 6- Supplying schools with necessary materials to use corpus tools in the classrooms to teach collocations to help students promote their writing skills to be native-like.

5.2 Suggestions for further research

In the light of the research findings, the researcher suggests the following further studies:

1)-The current study should be replicated using other subjects from first, second, and fourth year faculty of Education English majors. 2) Future researcher is required to investigate the effect of using a corpus-based collocation program on developing listening and reading skills. 3) Future research is required to explore the effect of using corpus-based collocation instruction on improving EFL learners' language proficiency.

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