VOCABULARY KNOWLEDGE OF COLLOCATION IN BUSINESS TEXTS: A CASE OF ESL TERTIARY STUDENTS

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Abstract

The objective of this paper is to examine and discover the vocabulary knowledge of collocation issues in business students' academic writing. To achieve the aim, a corpus-based investigation was conducted on essays of 40 tertiary business students to ascertain the extent to which they are exposed to certain key vocabulary of the field and how such words collocate with other words appropriately. Using the British Academic Written English (BAWE) McIsaac's (2019) version and concordance (Vocabulary level Text and vocabulary level software, lextutor.ca) as analytic tools to determine the key vocabulary levels of the field, the study qualitatively streamlines the overuse and the underuse of the most common collocations by students who speak English as a Second Language (ESL) in a business tertiary institution, the University of Professional Studies, Accra. The findings show that there are lexical collocation errors such as word choice, business jargon, and contextual errors. The study further reveals that some collocations are overused in student corpora, including increased lexical repetitions and redundancy. We recommend that business tertiary students gain mastery over the vocabulary of their field since it gives them a greater ability to produce high-quality written texts, which aid in text comprehension.

Keywords: Vocabulary knowledge; business texts; collocation; corpus; concordance

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1. Introduction

The strength of the individual's vocabulary promotes the ability to communicate both orally and in writing. However, undergraduates find it difficult to communicate effectively due to their lack of knowledge of the English vocabulary. A person's vocabulary knowledge is his understanding of the meanings of the corpus. According to Adika (2019), corpus knowledge is vital for tertiary students' ability to compose texts in their various subject areas. According to Rababah (2005), in order to communicate successfully, a tertiary student must continue to expand his word knowledge repertoire. Alasmary (2019) and Dang (2018) maintain that tertiary students lack vocabulary knowledge and therefore do not produce academic texts that meet the standards of the academic community. They continue that fostering vocabulary knowledge in several ways among the tertiary students can help the students increase their academic writing practices. The study emphasises the importance of vocabulary study in academic writing among business students. It highlights some of the vocabulary issues that business students face, and it increases the awareness of the importance of vocabulary teaching and learning among tertiary students in business disciplines in order to improve tertiary student vocabulary understanding and lessen the numerous challenges they face.

Acquiring word knowledge has become one of the most important skills at the levels of language learning. That is why Yang & Dei (2012) reveal that language learning cannot be complete if there is a shift in the meaning of the contextual variables that are due to unlimited lexical knowledge. Additionally, vocabulary is the essential basis for acquiring writing skills, Pan & Xu (2011) indicate that vocabulary is the essentials of linguistics of the language and the most important of all the basic language skills needed for everyday transactions, listening, speaking, reading, and writing. It implies that language use and language proficiency cannot take place without the knowledge of vocabulary. Weak vocabulary knowledge poses a lot of problems to the essay composer and tends to impede the composition processes. Schmitt (2002) debates that vocabulary knowledge plays a vital role in the second language acquisition process because it is the fundamental means of communicating coherently and meaningfully. Jones-Mensah & Tabiri (2020) indicate that the result of text quality is the ability to use vocabulary knowledge to compose text. In fact, a writer's ability is greatly motivated by his vocabulary knowledge.

One important knowledge of words is collocations, these are formulaic language units that are important in our knowledge of language learning and use; yet, while the number of corpus-based studies on collocations is increasing, there is still a need for a better understanding of the elements that influence how words are studied in a corpus. Many scholars use traditional corpus studies, such as Hama (2010); Zanettin (2014), which look at traditional corpora, which are language databases that have been constructed explicitly for the purpose of linguistic research. In his research, he discovered that traditional corpus analysis might help students better appreciate the value of collocation when learning a new language. Establishing and using the collocational strength of word blends on general corpora that include a diversity of registers in the written text could also be used (Bestgen & Granger, 2014; Durrant & Schmitt, 2009).

Collocational features of ESL proficiency can be learned from a variety of sources. Some of the sources, Visual Analytics (VA), Collocation Completing Test (CCT), Retrospective, the Think Aloud Protocol (RTAP) reveals numerous methods for studying collocations in students' texts. Data on how students really use collocations in composition can be collected by examining learners' written or spoken language production (Yoon & Hirvela, 2017). In comprehensive measures, specific samples of ESL students' writing are examined in terms of all the collocations found in the accessible texts. Another option is to employ corpora of ESL students' writing, in which case just specific, pre-selected collocations can be analysed as they appear in a range of text. Examining how nouns and verbs collocate, for example. This could be accomplished by getting an electronic instrument for studying word objects and comparing the collocate patterns of ESL texts to those of native speakers' texts.

Additionally, collocation issues are regarded to be a problem area among ESL speakers. Many research papers present evidence that appears to back up this point of view. Collocations have recently received increased attention in Applied Linguistic studies, but ESL students know little about how collocations function properly in writing, according to Leniewska (2006) and Howarth's (1996) studies on collocation in second language use. They give a broad overview of the research that has been done in this field. For example, Howarth discovered that advanced students commit a specific form of writing fault known as collocational errors, which "may contribute to a lack of precision and obscure the clarity essential in the text composition," according to him (Howarth, 1996).

For many years, business English researchers have been preoccupied with the importance of business lexis. The issue necessitates the creation of courses for business-related writings in the late 1960s and early 1970s when textbook authors created courses that primarily concentrated on business-related vocabulary and terminology (Nunan, 2004). Later approaches, on the other hand, have emphasised the importance of generating textbooks full of word-related difficulties that focus on teaching communication skills and functions with a real-life perspective among professional students, such as business students.

A feeling of purpose, a multicultural component, and a requirement for clear, simple, and concise communication are the most significant qualities of business English, as compared to common English. We must identify the best approaches to teach business performance language, full of word knowledge in their electronic communications, meetings, presentations, report writing, and so on, in order to attain these broad aims of business English learners. A thorough understanding of English collocational patterns is crucial in all of these circumstances.

There are a variety of approaches to analysing collocation concerns in text in order to develop effective methods for teaching word knowledge in collocation to business students. One method is to elicit learners' collocational decisions for certain test questions, in which case a pre-selected group of collocations is the subject of study, making it easier to compare findings across subjects and groups (Biskup, 1992; Bahns & Eldaw, 1993; Granger, 1998). Simple "open elicitation techniques," such as gap-filling tasks/cloze tests or acceptability assessments, can be used to do this. As an indirect measure of collocational knowledge, several testing procedures might be applied.

Another method is to utilize psycholinguistic tests based on word association patterns to explore the organization of the learners' mental lexicon in terms of collocational relationships. The data gathered from all of the aforementioned sources can be compared to native-speaker standards and/or other characteristics of learners' lexical abilities, such as vocabulary size. It is the learners' knowledge, as indicated by their judgment/introspection, that serves in elicitation methods; in association tests, it is some manifestation of the underlying mental system.

According to the findings of the current study, business university students need a sufficient vocabulary to enable words to collocate properly in order to generate quality text for better communication reasons in their subject and field of business. Some Business students enter institutions with a poor level of English language competency, according to Gene et al. (2019). Many faculties welcome students with credit in English since it is usual in many faculties that consider English to be unnecessary for the course the student is applying to study. As a result, it is vital to look at the lexical knowledge of business students in terms of collocation and text quality.

1.1. *Describe relevant scholarship*

According to Lim, Choi. & Park (2012); Laufer et al. (2004); Milton (2009); Nation (1990, 2001) vocabulary knowledge entails understanding the meaning of a term. The depth or partial knowledge that a person has about a term is referred to as the knowledge of the word. The ability to pronounce the word, display an understanding of the term in speaking or writing, spell the word, employ the word meaning completely in phrases, and strive to allow the word to coexist with other related words are all examples of partial or depth knowledge of the word (Qian, 2002).

Vocabulary knowledge is beyond the depth of meaning of a word one holds, it characterizes a whole lot of knowledge meanings of a word a person holds. Nation (1990) explains that knowing the word is the ability to demonstrate meaning, understanding, association meaning of a word in speech and writing. Haastrup & Henriksen (2000) and Maskor & Baharudin (2016) agree that VK is the ability to demonstrate collocation of a word in speech and writing. In a similar vein, Farrokh (2012) agrees that collocation is vocabulary mastery and it is the capability of identifying and demonstrating the word components by understanding its many elements, such as its lexical organization, and lexical association.

The term "collocation" comes from the field of lexicon studies, and it can be defined and understood in a variety of ways (Bahns, 1993). There were two distinct aspects to the phrase collocation in general. One, the term has to do with meaning, and the other is merely the semantic relationship between words. Firth (1957) brought the term to the field of recognition. To him, the frequent co-occurrence of words is known as collocation. (Carter & McCarthy, 1988; Hill, 2000). Jaff (2013) agrees that the term is perversive and it is open to debate. However, Alasmary, (2019) agrees that collocation simply means habitual co-occurrence of certain words. He continues that words that collocate occur more often with judgment and decision, passing judgment, and making a decision.

Halliday & Hasan (1976, pp. 285-286), refer to "collocation as lexical cohesion". They continue that words that collocate are a combination of words that share "lexico-semantic"

characteristics with an ultimate function of cohesion. For them, collocation chains may occur in the same sentence and the structural margins. Halliday & Hasan (1976) identified some collocation chains as

"candle, flame, flicker",
"hair, comb, curl, wave", and
"poetry, literature, reader, writer, style".
Halliday and Hasan (1976) refer to these pairs as associations between words. Simpson, (2001, p. 77) agrees that "it is an association on a syntactic plane rather than a pragmatic plane". Nofal, (2012, p. 11) posits the meaning of associated words could be predicted by the other words that are in the work environment. While Simpson (2001) refers to collocation as a chain rather than a choice, Nofal (2012, p.12) refers to it as the meaning of a word and the company of other words it keeps. In fact, it is the word meaning and the relationship the word bears with other words. In this study, the concern is how words in a business text interact with each other. For the assertion that collocation is meaning, defining collocation is a challenge and it would not be possible to discuss all the perspectives of collocation in a single essay. Therefore, some basic and general views regarding collocation in business texts will be discussed in this study.

1.2.   *Discipline Mastery of Vocabulary*

Students at all levels and of all disciplines require the mastery of the word in terms of use to be able to demonstrate effective writing skills (Chen et al., 2015). The mastery of vocabulary in effective writing means the student must have the ability to understand, distinguish, recall, merges, and provide the extended meaning of the word. In furtherance, understanding the meaning of the word involves understanding the concept of words by relating them to their referents. Grauberg (1997) agrees that understanding a word means consolidating the extensive stages of the word that will lead to learning new vocabulary and its integration in the learners' vocabulary system.

Despite these revelations in some literature, learning vocabulary causes a stir among students. The most difficult of it all is that there are no fast rules for learning vocabulary among tertiary students. More so, the Communication Skills curriculum for universities in Ghana did not cater much for vocabulary teaching and learning for business students. The lack of vocabulary teaching and learning among tertiary students causes much damage to their writing proficiencies among the business or students being trained for the job market (Alasmary, 2019).

Recent studies agree that for a correlation to exist between word knowledge and text production researchers should take into consideration collocations are recurrent word combinations that occur more frequently than would be expected by chance and relate to arbitrary word usages. In English texts, there are many more collocations. The association between word knowledge and text output could be established if the methodologies proposed by scholars to retrieve various forms of collocations from the study of large samples of textual data are used. These methods generate a vast number of collocations, as well as statistical figures that show the relationships' significance (Smadja, 1992). However, Mehnet (2019) discovered that measured characteristics of vocabulary knowledge, such as productive

vocabulary size, receptive vocabulary, and depth of vocabulary knowledge, all correlate strongly with writing and speaking ability.

Early studies by Farjami & Aidinlou (2013) argue that ESL students make efforts to retain words in the long-term memory for text production. This research also investigates students' difficulties with vocabulary in business courses, and how they were given some practical learning and teaching tools in Communication Skills and Academic Writing to help them overcome these difficulties. Farjami & Aidinlou (2013) suggest one way to help students improve their vocabulary. That is instructors should look into novel vocabulary studies that provide new vocabulary items in contexts (Farjami & Aidinlou, 2013).

Academic Writing and Vocabulary Knowledge: Empirical Evidence

Rohmatillah (2017) and Jones-Mensah (2018) used empirical evidence to evaluate the obstacles ESL students have when learning English vocabulary for quality text production. They point up problems that impede students' vocabulary knowledge in the academic setting, such as the student's incapacity to select words to collocate coherently, in the qualitative research. They also highlight some key characteristics that make learning vocabulary difficult, as well as assigning learning problems to distinct levels of language Khan (2011) highlighted the vocabulary challenges that certain target language learners face in a previous study. He indicated that some students struggle with word definitions, prefixes, and suffixes, as well as the use of synonyms. The issues of word knowledge in text composition require a great deal of research.

Elttayef & Hussein (2017) argue that the students have insufficient basic knowledge of the word even though they are taught English right from basic school. The study further asserts that the ESL/EFL students' problem is due to the sociocultural background influences their native languages have on the English language. As a result, some of these students have weak backgrounds in influencing their vocabulary knowledge. According to researchers, Elttayef & Hussein (2017), students with this insufficient background have difficulty later in college and university when they enroll in specialized courses.

Elttayef & Hussein (2017) proposed intensive participation in the Communication Skills classrooms to limit difficulties these students encounter with word knowledge in developing language skills such as listening and speaking, as well as highlighting curricular issues connected to academic writing. Learning vocabulary is an important part of learning a second or foreign language, with a focus on the definitions of new words (Alqahtani. 2015). According to Alqahtani (2015), it is critical to examine vocabulary and throw light on specific challenges, as well as to find approaches and methods of teaching vocabulary in order to enhance acceptable vocabulary knowledge for ESL tertiary students.

Baniabdelrahman & Al-shumaimeri (2014), for example, recommended employing cluster sampling methods, guessing unknown word meanings, and using practical derivational knowledge to affect intense word knowledge in writing. According to Farjami & Aidinlou (2013), learning a second language at various levels of competency necessitates a large corpus of knowledge for which students make efforts to preserve words in their long-term memory. Only elaboration and some practical vocabulary learning and teaching methodologies, according to Farjami & Aidinlou (2013), amend and improve vocabulary knowledge difficulties. Farjami & Aidinlou (2013) provide some practical strategies for improving students' vocabulary. They argue that ESL students should be given cues to estimate the

meanings of new vocabulary items by teachers who deliver them in rich contexts. Also, according to Tabiri (2016, p. 596), "Words are learned more easily if they are taught in context" These revelations in literature motivate this search using a corpus approach to investigate vocabulary knowledge of tertiary students' texts in the University of Professional Studies where the populace is ESL students in business studies.

1.3.   Problem Statement

Composing academic essays requires that the writer must have rich word source and have a developed linguistic repertoire that enhances his knowledge of vocabulary. However, the knowledge of tertiary students' vocabulary poses a lot of challenges for these students, particularly for ESL students. The challenges of students 'vocabulary knowledge range from pronunciation, spelling, correct use of words, word meaning, and collocation. The reasons for these problems are of numerous faces. For ESL students, the influence of mother tongue on selecting words cannot be left out. Some recent studies, Chiang (2018); Alasmary (2019) and Halim (2019) pointed out that good competence of knowledge of vocabulary can translate to composing good academic text at the tertiary level. The demand for vocabulary study on academic work in tertiary institutions remains an increasing debate. In Ghana, Banini, (2021); Adika (2019) and Mahama (2012) confirm that students have challenges of corpus knowledge for composition essays at the tertiary level especially in word choice and word relations. For example, Banini (2021) mentions that tertiary students even in their post-graduate studies do not use vocabulary efficiently to demonstrate the appropriate means by which words co-occur in writing. Adika (2019) also confirms that since students in tertiary institutions lack knowledge of vocabulary, so they must be engaged in a disciplinary corpus study.

Additionally, there are no sufficient teaching and learning methodologies for vocabulary studies in tertiary institutions. Despite various shortcomings in teaching and learning methodologies across the tertiary institution curriculum of vocabulary study, there is a momentous increase in the request for English vocabulary knowledge in business studies (Morgan, 2000). The rise of advanced technical transactions requires those in business to transact business through documentation rather than face-to-face conversation. Therefore, business students have a larger demand for English vocabulary ability. As a result, knowing how words select and co-occur appropriately is required in composing and delivering messages in business documents. Nonetheless, demonstrating mastery of vocabulary to suggest a business student's grasp of the English language ineffective communication is difficult. In a business-dominated setting, it is especially tough for English Language instructors teach students how words co-habit for efficient communication in their texts in the faculties and on the job. Rathbone (2006) asserts that the right choice of words in good communication asserts the behaviour in the market. As a result, it has become critical to look at the link between business students' vocabulary in collocation and text quality. Furthermore, it is critical to search for vocabulary-learning methodologies that will improve students' knowledge of collocation for business studies while simultaneously providing the opportunity for them to learn new words relevant to the field.

1.3.1. *Research Objectives*

The objectives of this study are as follows:

O1. To investigate the total number of lexical collocation faults in students' essays.

O2. To classify the subtypes of word association error patterns in the students' composition.

O3. To recognize the differences and similarities in the errors of the ESL corpus and NS corpus data.

O4. To reveal the errors sources and the causes of the occurrences.

1.3.2. *Research Questions*

The following research questions serve as the bedrock of the study.

Q1 What sum of lexical collocation faults are discovered in the writings of the students' essays?

Q2 What subtypes of word association error patterns are discovered in the analyzed essays?

Q3. What identified errors and similarities do these errors share with NS corpus data?

Q4. What are the error sources and causes?

1.4. *Significance of the Study*

This study hopes to provide important information to ESL instructors, students, researchers, and stakeholders in the business and marketing faculties to improve teaching and research in collocation issues. It will also improve second language business students' awareness of their collocation errors, and it will allow them to work toward avoiding these errors and writing to attain a near-native status. It hopes to provide more room for further research on vocabulary issues.

2. Research methodology

The research approach is a qualitative corpus analysis. The research design is an exploratory inductive research design. This kind of design is implementing characteristics of a case study in which the writer investigates difficulties and factors causing the difficulties in electronic tool analysis (Smith, 2019). According to Hasko (2012), the corpus inductive approach uses the frequency of occurrences of tokens that are generated with the corpus tool to investigate the various ecological aspects of language utilized in the text for communicative events. In this approach, the linguistic investigation is based on real data. Using Hasko's (2012) approach, the essays that the students compose in the business faculty have been chosen.

2.1. Participants

A total of 450 undergraduate BSc Marketing students took part in the study. The participants were 300 ESL business students from the Department of Business Administration, who were

teaching Technical Writing and Academic Writing as writing courses to assist them to enhance their writing skills. They are multilingual and have spent the majority of their academic careers studying English as a Second Language. Ghana is a bilingual country so these students speak at least two native languages in addition to English. It has roughly 600 pupils, but only 300 were chosen for the study on the basis of their extensive essay writing.

2.2. Sampling Technique

Purposive sampling and cluster sampling techniques were used in selecting the data. Rules created in the sketch grammar that recognize potential collocations of these pairings specify the words that are included in the analysis. The concordance search was used to narrow down the results. The concordancer is a tool that is used in corpus linguistics research. It's a search engine for retrieving, presenting, counting and analyzing corpus information. In general, the concordancer allows you to search for tokens (words, phrases, and sentences) in many pieces to see how a word or phrase is compounded and utilized in different texts. The concordancers generate and show a variety of textual data, as well as perform several kinds of analysis on the collocation patterns. The students of UPSA were purposively chosen because these are students who study degree courses in business professional domains. They are marketing students who do copious business writing, so they compose different essays that are related to business writings. A cluster sampling technique was used in identifying and collecting the texts. The reason for choosing a bunch of word sampling is that this is appropriate for guessing meanings of unknown words occurrences, using practical derivational knowledge in searching for linguistic items in a text to influence intense word knowledge in writing.

2.3. Data collection tool

British Academic Written English (BAWE) **McIsaac version (2019) is** chosen for the data analysis. The tool depicts a pattern of British Academic English in two levels of study: undergraduate and master's level, with pretty evenly distributed disciplinary areas (Arts and Humanities, Social Sciences, Life Sciences, and Physical Sciences). The Social Science version is chosen for the study because it is the aspect that contains the business variety of vocabulary. The corpus as a whole contains 2761 pieces of proficiently judged student writing ranging in length from 500 to 5000 words. For a small study of this nature, 500 to 5,000 words is enough and the use of the corpus instrument to store the text increases the reliability and validity of the tool (Rayhan et al., 2013). The tool handles the data with more accuracy. The concern is that social science aspects of the tool that generates English collocations categorized the collocation into two relations: grammatical relations and syntactic relations. In the word jumble engine, the word is processed to collocate with other words in its surroundings in the text. The results are organized into different forms of lexical relations also referred to as grammatical relations by Firth (1957). The lexical relations are classified as words that serve as an object of the verb, words that serve as a subject of the verb, syntactic relations: words that modify the word, etc. For instance

The Lexical Collocation Errors subtypes were grouped as follows

Noun and Verb relations………..make an impression
Verbs and Nouns relations………bomb explodes
Noun and Noun relations………...rejects an appeal
Adjective and Noun relations……strong tea
Verb and Adverb relations………appreciate sincerely
Adverb and Adjective relations…..strictly accurate.

2.4. Data collection and analysis:

The data is drawn from the University of Professional Studies, Accra virtual learning platform and programmed into the British Academic during the academic year 2019-2021. The BAWE tool is used in this work as a real-time tool for analyzing and looking for collocation in communication (Blankenship, 2017; Denton, 2012). The data was mainly essays written as take-home assignments. English Corpus (BAWE) already contains data from NS in the business discipline so the ESL business students' corpus was loaded side by side with the NS data. The BAWE's already existent written materials received high marks. The texts were created for three university semesters in the United Kingdom by NS and NNS students. The corpus as a whole contains data from 35 fields, totaling around 6 million words. The work of undergraduates in their first, second, and third years is covered by the assignments loaded from NS and NNS students. Four semesters from one of the disciplinary sub-corpora are examined in depth in this paper. Data from four different semesters were identified and utilized to represent each of the knowledge groups in business class. There are over 721 texts in this corpus, which totals just under a million words. Out of the 721 texts, only two-year texts which is equal to four semesters from business data will be adapted and adopted for the investigation. The collocation was sieved and applied from the UPSA ESL students' business texts. Through the employment of a unique BAWE instrument, the corpus instrument boosts efficiency and manages data with more accuracy (Rayhan et al., 2013). A descriptive analysis was created to evaluate the pupils' vocabulary. The corpora are made up of collocational elements, and the students must be from the business department and be regular students. Following the data collection and generation, a BAWE concordance summary of all tokens was generated. In terms of collocation, the percentages of word knowledge were interpreted.

In order to find the technical words that collocate in business texts written by students and to find their associated problems, two main steps were taken: first, business terminology collocations for the most common business words were found in students' corpora. The steps are enumerated below.

Step 1
• For the first step, three criteria were set for locating the word collocates in the corpora.
• Second, a three-word span from both sides of the node, words were used to find collocations.

• Third, in order to locate collocations of particular types of word combinations, third-word lists were constructed in stage and utilized as wordlists in BAWE-concordance.
Step 2
• The first thing done in Step 2 is word class collocations located in the students 'corpora were searched in the reference corpus for verification of the collocations.
Each step is presented in detail below.

2.5. Validity and reliability of the tool

The corpus instrument allows for automatic search, which is both time-efficient and accurate in finding all possible matched words that would otherwise be difficult and time-consuming to locate manually. BAWE-gramming is effective, but it requires manual analysis to focus on strong collocations rather than grammatical words, which frequently co-occur with contiguous and discontinuous collocations.

2.6. Description of the Corpora in the Texts

The text is drawn from business students in the faculty of marketing. The table below gives the characteristics of words found in the text. Details are given in Table 1.

Table 1. Data on Sub-Corpora

Business Students	First Semester	Second Semester	Third Semester	Fourth Semester	Total
No. of Words	299,380	408, 170	202,880	320,120	1, 230,550
No. of Files	117	204	77	113	511

The Business Studies corpora have a much higher amount of data in terms of overall word count, which is roughly 972,324 words. The disparity in these figures is most likely due to the higher amount of writing necessary in social sciences as opposed to natural sciences, arts, or any other faculty. The paper adopts a qualitative analysis to explain the phenomena from the BAWE corpus the phenomenon in the concordance search.

2.7. Delimitation and Limitation

The scope of this study is business undergraduate students', writings in a Ghanaian University. The data for this study came from the take-home essays these students wrote. A total of 900 essays were collected from different essay topics. However, due to uncontrollable variables, the data set was limited to just half of the total number of essays collected, resulting in an analysis of only 450 essays. As a result, the data analyses reported were based on only 450 essays.

3. Findings and Discussion

The errors were collected with the BAWE tool, counted, and converted to a percentage as in:

Table 2. Number of Lexical Errors in The Writings

Error Types	Number of Scripts	% of Errors	free of Error %
Lexical	450	(320) 7 1.11 130	(130) 28.9

In total, 320 lexical errors were discovered in the essays, accounting for 71.11 percent of the total percentages. There are 130 correct collocations in all, accounting for 28.9% of the total. The ESL students in this study clearly commit numerous lexical collocation errors in their works. As a result, lexical collocation errors were found to be significantly greater (71.11 percent of 100 percent) among the ESL students whose works were assessed in answer to the first research question.

3.1. The subtypes patterns discovered
ESL students Collocations Verses Native Speakers Collocation

Table 3. Lexical Collocation Errors subtypes

Types	Patterns Identified	No of Occurrences	Total %
Lexical Errors	Noun and Verb	98	31.3
	Noun and Noun	65	20.9
	Adjective and Noun	49	5.6
	Verb and Adverbs	41	12.5
	Adverb and Adjectives	29	8.8
	Noun and aux + Verb	19	5.6
	Verbs and Nouns	19	5.3
	Article noun	31	1.3
	Auxiliary verb	18	4.5

3.2. Subtypes of Lexical Collocation Error Patterns

The percentage of lexical errors and the number of its occurrences

> the noun and verb pattern occur 1i8 times which is 31.9%;
> the noun1 and noun occurs 67 times which equals 29.9%;
> the adjective and noun pattern times 50 times i.e., 15.6%;
> the verb and adverb pattern occurs 40 times which equals 12.5%;
> the pattern adverb and adjectives occur 28 times which equals 8.8%;

the article and noun occur 30 times 1.3 %
the auxiliary and main occurs verbs 20 times 4.5 %
the verb and noun pattern occurs 17 times which represents 5.3% respectively in the overall,
the noun and verb lexical collocation errors have the highest number and percentage of occurrence

3.3. Subtypes of Lexical Collocation Error Analysis

Noun and verb collocation errors are clearly the most common collocation error pattern pairings among ESL business students. This suggests that ESL business students make a greater number of noun and verb collocation errors than other patterning faults. The lexical problems discovered in these essays were divided into three categories: word choice, business jargon, and contextual errors.

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Choice of Words

The choice of one or both terms is incorrect. The following are some examples based on the information gathered:

ESL COLLOCATE	NS COLLOCATE
Doing inspection	Conduct inspection
Something untoward	Something unforeseen
Period duration	Time limit
Height quest	high demand
Applies sales	recount sales
Anytime movement	free movement

Business Jargons

ESL Word Form	Equivalent Target Meanings
Business more hard workers	Hardworking businessmen
To various location	to various location
Beings/ been experienced	being experienced
Self-responsible	self-responsibility
Were-by marketers	whereby marketers
Fr Free-flow of corruption	corruption-free

ledgers more neatness	neater ledgers

3.5. Contextual Errors

Some lexical pairings are grammatically correct yet contextually improper and erroneous. In the essays of the ESL students investigated in this study, there are a lot of these combinations. The following are some examples:

ESL Contextual Errors	*Equivalent Target Meanings*
problem arising due to	problem caused by
Suggested to say	wish to say
plagued by mass destruction	thrown in turmoil
reduced to high rate	minimized

3.6. The identified errors and the similarities they share with NS corpus data

The types of lexical collocation errors perpetrated by the participants in this study are quite similar. The calculation of the percentage (%) number of occurrences reported for each lexical collocation mistake type leads to this conclusion. Some error patterns appear most regularly and frequently in every essay, accounting for 31.3 percent of the total number of occurrences. 8.3 percent of the entire proportion is accounted for by the least pattern occurrence.

The higher numbers just show that most learners or students make such kinds of errors on a regular basis. As a result of the higher rate of occurrence of these patterns, it can be deduced that the types of lexical errors students make in their essays are comparable. The faults made by students in the essays under investigation have a common feature. In other words, all of the writings contained the same categories of lexical problems. Some of these include:

in association to	in association with
pay serious attention on	concentrate on
seriously instability	serious instability

The types of lexical collocation errors perpetrated by the participants in this study are quite similar. The percentage number of occurrences for each lexical collocation mistake type was calculated to arrive at this conclusion. The noun and verb patterns appear most frequently in all essays, accounting for the largest overall percentage number of occurrences.

As a result of the higher rate of occurrence of these patterns, it can be deduced that the types of lexical errors students make in their essays are comparable. The faults made by the students in the essays studied have a 'common' aspect in other work: the same kinds of lexical errors appeared in practically all of them.

3.7. The sources of the errors

According to the findings, some collocations are overused in student corpora, including increased lexical repetitions and redundancy. As a result, the fundamental bearer of meaning, language, is emphasized. Fluency is founded on the acquisition of a big store of fixed and semi-fixed pre-fabricated things, which are available as the foundation for any language novelty or inventiveness.

Step 1

3.8. VK Problems in Collocations in the ESL Business Students Texts

"... the Lexical Approach places communication of meaning at the heart of language and language learning. This leads to an emphasis on the main carrier of meaning, vocabulary. The concept of a large vocabulary is extended from words to lexis, but the essential idea is that fluency is based on the acquisition of a large store of fixed and semi-fixed pre-fabricated items, which are available as the foundation for any linguistic novelty or creativity" (Lewis, 1997, p. 15). Farjami & Aidinlou (2013 p. 216), also agreed that using valuable electronic tools that "contain key elements about the target word" to teach word association is important.

N and V collocations were found first in students' corpora using the three criteria mentioned above. There were four lists of collocations created, two for each corpus. In comparison to the native corpora, the search reveals the number of tokens of collocations for both nouns and verbs in each of the business students' corpora.

Table 4. Number of tokens of N and V collocations in NNS and NS corpora

	ESL Noun	NS Noun	ESL Verb	NS Verb
Tokens	872	1608	258	591

Two lists were produced for the reference corpus using the business nouns and verbs chosen as nodes in the ESL corpus, and two lists were created in the same way for the NS corpus. In this approach, for each student's corpus, parallel sets of N and V collocations were found in the text, as well as many other collocations that were not used in students' corpora but were disclosed in the NS.

 Table 5. Number of tokens of noun and verb collocations located in RC.

	ESL-Noun-T	NS-Noun-T	NNS-Verb-T collocations	NS-Verbs-T collocations
Tokens	5843	6282	1454	1648

Following the discovery of N and V collocations in the three corpora, the shared set of collocations was determined by comparing the collocations found in the students' corpora with those found for the same nodes in the TEXTS.

3.9. Comparing ESL and NS syntagmatic and paradigmatic nodes

First syntagmatic and paradigmatic nodes were considered. The following words were found:

Table.6. ESL and NS syntagmatic and paradigmatic nodes

Word node	verb form	DO
bank	confirms	calling the receipt of a draft

verb form	DO (node)	to-infinitive clause used as object (to accept)
to instruct	a bank	to open an account
		to pay an invoice
ask	a bank	to extend an overdraft
		to hold a cheque

verb	DO prep. phrase (node)	
provide	ask for credit	with a bank
open	a letter for credit	with a bank
open	an account	with a bank readjust

verb	DO prep. phrase (node)	
sanitize	the account	in the ledger
infected	accounts	in the school documents

Following the common occurrences, we double-checked the collocations using the BAWE concordance to see if the collocations were found in the huge NS corpus. These were not found in the NS corpus, according to the search. The vocabulary that emerged in the Covid 19

era has influenced the writing of these students. We proposed the use of shared sets from the NS corpus for studying and learning colocations in specific contexts.

Further, we studied N and V in Business students' academic collocations, the collections were compared and verified. BAWE Gram provides a handy technique such as employing frequency of occurrences and queries to compare lists of collocations between two sets of corpora to avoid the requirement for manual checking of academic collocation lists. In each language user category: ESLS and NS, the validated lists of N and V collocations (tokens) located in the corpus were searched. The search will then be able to find the shared set of collocations across the corpora. As a consequence, 3559 NS collocations (tokens) were chosen from the NS corpus against 3652 ESL collocations (tokens).

Verb collocations were also compared using the same technique for each word class. The ESL corpus yielded 1126 V collocations (tokens), while the NS corpus yielded 1294 V collocations (tokens). Except for a few deviants in the ESLS, both the ESLS and the NS have a lot of commonalities. These deviants show a lot of influence from the L1 on the collocations in the ESLS corpus. The table below shows how students' N and V collocations were compared.

Second, the concordancer returns1132 collocates for NS whereas the ESL concordance returns only 222. The search also concentrated on the most frequent word occurring in business texts. A word such as "bank" and fund collocate differently. The information provided by the BAWE concordance search shows added meanings of the word bank among the ESL speakers. For instance, the illustration below shows the collocates of the word bank in both instances.

The bank was investigated, and the capital ***goes up*** to GH 50 million.

NS collocation: bank account
                        bank fund
        ESLS colocation: ………….bank robbers
                        ………….bank sanitizes the account
                        the mobile bank
                        the 'momo' bank

Another revelation is found with the word 'fund', the word 'fund' collocates differently for both the NS and the ESL. For instance,

NS collocation: funds, aid, and natural resources
ESLS colocation: fund aids the donations to heart foundation

The search revealed that some other words from the ESLS have been forced into the language in the writing process.
NS colocation depository banks enter into additional lines of business

ESLS colocations reserve banks enter into additional lines of business

The search showed that while some of the ESLS have the same collocations as the NS there is still variants in terms of the various factor such as the era of speaking, social experiences, using the immediate word available in the cognitivism, and social change.

Third, business students do not consider varying vocabulary in the text. The majority, about 59.6% of texts show positive use of collocation but with L1 interpretation and social influence. Business students have problems using words in the right contexts. The students find it difficult retaining the words in their memory so they substitute with the immediate word that they can remember; they do not think about whether the chosen has selected the appropriate pair or pairs. They also substitute with a different word of their choice and a word the is coined or readily available. Therefore, we propose the teaching and learning of vocabulary to the universities that study subjects in a specific discipline.

Affiliation of ESL business students' VK and native speakers VK in collocation is another source of the problem. Both ESL and NS text production heavily depends on the command of vocabulary knowledge (VK), (Maftoon, Hamidi, & Sarem, 2012). Hence, we propose that vocabulary knowledge is important for ESL and NS students because they need sufficient knowledge of the words before they can comprehend what they have read or heard and try to put those they read and heard in writing or in composing business documents. For the ESL students, learning vocabulary in context is the biggest exposure they have had and would have had in language learning and documentation process. Therefore, in acquiring the meaning and using the word, the BAWE Gram Score on the BAWE collocation is very useful in learning mean and using words efficiently in text processing.

Concerning the relationship among collocation size shows some similarities and differences. In indicating a "moderate positive relationship" in collocation in the ESL and the NS, the vocabulary size on collocation serves as a good indicator of ESL speakers' reading ability. Nevertheless, the empirical results are still lacking much evidence on the relation between the ESL and the NS word processing. We stressed in our second dimension, the importance of searching for the depth of knowledge in collocation, vis-à-vis collocation in text production in lexical researchers.

4. Conclusions

We propose the use of valuable electronic tools such as corpus tools for helping students to retain the word and the word family. The student could study words in texts by using the corpus tool to identify the way words select or co-occur in different dimensions. Using the electronic tool, the students can naturally pick some of the word families into their memories and use these word families properly in their writings. The students manage such vocabulary in the electronic data to improve their word learning process in the vocabulary study class.

It is also important that learners should broaden their plans and establish self-directed learning practices. ESL students can use deliberate vocabulary acquisition procedures and contextual hints in electronic tools for creating new word meanings to actively learn the meanings of new terms. Similarly, students may use activation strategies that include various tactics such as retrieving and rehearsing new phrases in various contexts. These strategies can be used in conjunction with other important learning techniques, such as electronic metacognitive strategies. For example, the lecturer may assist students in concentrating more intently on a word, reflecting on their prior knowledge of the word, searching for additional information about the word in electronic data, attempting to recognize errors in their thinking about the word, and developing practices for effectively learning about the word.

There is also the need for further research in this area. The study recommends that doing a comparison on ESL and NS sub-corpora is very important. The investigation if accurately built could help improve writing among the business students. The analysis indicates that there are bounds to be more lexical repetitions. It is important to use lexical variations to enrich text at the advanced stage of learning, the variety of vocabulary deployed by a text composer makes the text rich in written texts (Malvern & Richards, 2002). Generally, lexical variation in collocation is lower in the Business academic texts. Finally, the chance of repeating the same collocations in sit-down texts is greater in the NS than in the ESL texts.

References

Adika, G. S. K. (2019). Chapter 11 Credibility and Accountability in Academic Discourse: Increasing the Awareness of Ghanaian Graduate Students. In: Philosophical Foundations of the African Humanities through Postcolonial Perspectives.(209) 197-219. https://doi.org/10.1163/9789004392946_013

Alasmary, A.A. (2019). Multiword sequence and language learning pedagogy:Bridging the research-practice gap. English Language Teaching, 12 (1). 1916-4742. https://doi.org/10.5539/elt.v12n1p204

Alqahtani, M. (2015). The Importance of Vocabulary in Language Learning and How to Be Taught. International Journal of Teaching and Education, III, 21-34.

Arnaud, P.J.L. (1984). The lexical richness of L2 written production and the validity of vocabulary tests. In T. Culhane, C. Klein-Braley and D.K. Stevenson (Eds.): Practice and problems in language testing. University of Essex occasional papers, 29, 14-28.

Ankomah, C. & Afful, J. B. (2019). Establishing a niche in research: rhetorical strategies in and postgraduate writings in the department of English. Journal of Teaching English for Specific and Academic Purpose. 7(3). 359-374. University of Cape Coast. https://doi.org/10.22190/JTESAP1903359A

Bahns, J., & Eldaw, M. (1993). Should we teach EFL students' collocations? System, 21(1), 101- 114.

Baniabdelrahman, A. A., & Al-shumaimeri, Y. (2014). Strategies Used by Saudi EFL Students to Determine the Meaning of English Words. English Language Teaching, 7(1), 75-92.

Bestgen, Y., & Granger, S. (2014). Quantifying the development of phraseological competence in L2 English writing: An automated approach. *Journal of Second Language Writing*, 26, 28– 41. doi:10.1016/j.jslw.2014.09.004

Blankenship, T. (2017). The Effects of Computer-Supported Collaborative Learning on Writing Performance, Metacognition, and Experience of Students with Writing Difficulties (Doctoral dissertation, The University of Oklahoma). Available at https://shareok.org/handle/11244/54306

Carter, R., & McCarthy, M.J. (1995). Grammar and the Spoken Language, Applied Linguistics, 16(2), 41-58.

Carter, R. & McCarthy, M. (1988). (eds). Vocabulary and language teaching. London: Longman. Chen, C., Li, x., Shen X., & Xiao, F. (2018). A high-order conservative collocation scheme and its application to global shallow-water equations. 8, 221–233.

Dan, J. (2018). Teaching and learning collocation in adult second and foreign language learning. 51 (1). 77-89. DOI: https://doi.org/10.1017/S0261444817000301

Denton, N. (2012). Research Methods in Applied Linguistics. Oxford University Press. 49 (2), 111-121. doi: 10.1080 / 14703297. 2012.677596.

Durrant P. & Schmitt, N. (2009). To what extent do native and non-native writers make use of collocations?

Elttayef, A. I. & Hussein, N. O. (2017). Arab learners' problems in learning English language: A teacher perspective, Tech. Rep.

Fan, M. (2003), An exploratory study of collocational use by ESL students – A task-based approach. *Elsevier.* 37 (1). 110-123.

Farjami & Aidinlou, (2013). Incidental learning of collocation. Journal of research in language study. 63 (1). 91-120. Webb, S., Newton, J., Chang, A.

Farrokh, P. (2012). Raising Awareness of Collocation in ESL/EFL Classrooms. Journal of Studies in Education. 2(3). 55-74.

Firth, J. R. (1957). *Papers in linguistics*. Oxford university press, London.

Grauberg, W. 1997. The Elements of Foreign Language Teaching. *Languages in Practice*. (7). UK: Multilingual Maters.

Haastrup, K., & Henriksen, B. (2000). Vocabulary acquisition: Acquiring depth of knowledge through network building. International Journal of Applied Linguistics, 10(2), 221-240.

Halim, H. A., & Kuiper, K. (2018). Individual Differences in The Acquisition of Restricted Collocations. International Journal of Education, Psychology and Counseling, 3(16), 36-49. *(14) (PDF) Individual differences in the acquisition of restricted collocations*. Retrieved from: https://www.researchgate.net/publication/327689508_Individual_differences_in_the_acquisition_of_restricted_collocations (accessed Nov 25 2021). (97). 1-10.

Halliday, M.A.K., & Hasan, R., (1976), Coherence in English, London: Longman

Hama, H. Q. (2010). Mojor sources of collocation errors made by EFL learners at Koya University.

Hasko, V. (2012). Capturing dynamics od second language development via learner corpus research: A very long engagement. *The Modern Language Journal.*

Hill, J. (2000). Revising priorities: From grammatical failure to collocational Success. Teaching Collocation. Further development in the English Language.

Jaff, M. (2013). Language and Linguistics Compass: phonetically based metric of sound similarity. Lingua, (122) 145–63.

Jones-Mensah, I. (2018). Writing Skills in the Academic Environment: Identifiable Errors. *The Social Educator: University of Education, Winneba.* (EUW). 3 (1). 11-17.

Jones-Mensah, I. & Tabiri, M. O. (2020). Review of Literature on Coherence and Cohesion in Text Quality among ESL Students Proceedings of the 6th International Conference on Teaching and Learning English as an Additional Language: Turkey, Second Language Teaching.

Laufer, B., Elder, C., Hill, K., & Congdon, P. (2004). Size and strength: Do we need both to measure vocabulary knowledge? Language Testing, 21, 202–2Leśniewska (2006),

Lewis, M. (1997). Implementing the lexical Approach. Hove. England: Language Teaching Publications. 4 (4).

Lim, S., Choi, H., Park, D. S. (2012). Efficient journaling writeback schemes for reliable and high-performance storage system. Semantic Scholar. Doi:10.1007/Sd0779-012-0603-5.

Maftoon, P. Hamidi, H. & Sarem, S. N. (2012). A Closer Look at Different Aspects of Language Teaching/Learning and Learner Identity. Theory and Practice in Language. 2, (6). 1160-1167.

Mahama, E. S. (2012). Ghanaian English and its implications for academic writing A Case Study of English on the Navrongo Campus of University for Development Studies, Ghana. Research on Humanities and Social Sciences. 2, (11). 56-64.

Malvern, D. and Richards, B. (2002). Investigating accommodation in language proficiency interviews using a new measure of lexical diversity. Language Testing 19 (1) 85–104.

Maskor Z. M. & Baharudin, H. (2016). Receptive Vocabulary Knowledge or Productive Vocabulary Knowledge in Writing Skill, Which One Important? International Journal of Academic Research in Business and Social Sciences 6, (11). 261-271.

McIsaac, L. J. (2019). Rhetorical strategies in PhD conclusions of computer science. Revista Espanola Aplicada/ Spanish Journal of Applied Linguistics. 32 (1). 356 – 384.

Mehnet, E. (2019). 52 Corpus linguistics methods. Chapter 68. Journal of Language and Linguistics Studies. edited by Jeroen Darquennes, Joseph C. Salmons and Wim Vandenbussche, Berlin, Boston: De Gruyter Mouton, 638-653.

Mollin, S. (2019). "I entirely understand" is a Blairism. The methodology of identifying idiolectal collocations', International Journal of Corpus Linguistics, 14/3: 367–92

Morgan, B. (2000). Poststructuralism and Applied Linguistics: Complementary Approaches to Identity and Culture in ELT International handbook of English language teaching. Chapter 63. York University, Canada.

Nation, I. S. P. (1990). Teaching and Learning Vocabulary. Boston, MA.: Heinle & Heinle Publishers

Nation, I.S.P. (2001). Learning vocabulary in another language. Cambridge: Cambridge University Press.

Nofal, K. F. (2012). Collocations in English and Arabic: A Comparative Study. English Language and Literature Studies; 2, (3) 75-93.

Nunan, D, Tasked-based language teaching. A comprehensively revised edition of Designing tasks for the communicative classroom. Cambridge language Teaching Library. Cambridge.

Pan, Q. and Xu, R. (2011). Vocabulary Teaching in English Language Teaching. Theory and Practice in Language Studies, 1(11), 1586-1589.

Qian, D.D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning.* 52 (3), 513-536. doi:10.1111/1467-9922.00193.

Rabab'ah, G. (2005): Communication problems facing Arab learners of English. Journal of Language and Learning 3 (1), 184-194.

Rathbone, M. (2006). Interaction between scholarly and non-scholarly reading of genesis 11:1-9 in the south African context. Stellenbosch University. Thesis

Rayhan, R. U., Zheng, Y., Uddin, E., Timbol, C., Adewuyi, O., & Baraniuk, J. N. (2013).

Administer and Collect Medical Questionnaires with Google Documents: A Simple, Safe, and Free System. Applied medical informatics, 33(3), 12-21.

Richards, G. (1987). On Psychological Language and the Physiomorphic Basis of Human Nature. Routledge: London. https://doi.org/10.4324/9781003157052

Rohmatillah, R. (2017). A Study on Students' Difficulties in Learning Vocabulary. English Education: Jurnal Tadris Bahasa Inggris, 6(1), 75-93.

Schmitt, N. (2000). *Vocabulary in Language Teaching.* Cambridge: Cambridge University Press.

Simpson, J. (2001). *The Routledge handbook of applied linguistics*. Routledge: Canada.

Smadja, F. (1992). XTRACT: An Overview. *Computers and the Humanities*, *26*(5/6), 399–413. http://www.jstor.org/stable/30204633.

Smith, J. (2019). McIntyre and Walker. 2019. Corpus Stylistics. *Journal. New Journal of Edinburg University Press*. 15 (2).

Tabiri, M. O. (2016). Teaching Francophone learners English Vocabulary without Resorting to the Use of L1 and L2, Procedia-Social and Behavioral Sciences, Science Direct, Elsevier, Volume/Issue: 232, pp.591-599

Yang, H., Nepusz, T., & Paccanaro, C. (2012). Improving GO semantic similarity measures by exploring the ontology beneath the terms and modelling uncertainty. Bioinformatics 28(10):1383-9.

Yoon, H., & Hirvela, A. (2004/2017). ESL student attitude toward corpus use in L2 writing. *Journal of Second Language Writing*, *13*, 257–283.

Zanettin, F. (2014) *Translation-Driven Corpora Corpus Resources for Descriptive and Applied Translation Studies.* St Jerome Publishers. Routledge.