Republic of Iraq

Ministry of Higher Education

and Scientific Research

University of Misan

College of Education

Department of English

The Role of Raising Awareness of Collocation in Improving Iraqi EFL Learners' Reading Comprehension at the University Level

A Thesis

Submitted to the Council of the College of Education, University of Misan in Partial Fulfillment of the Requirements for the Degree of Master of Arts in English Language and Linguistics

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2020 A.D. **1442 A.H.**

بِسْمِ اللهِ الرَّحْمنِ الرَّحِيمِ

وَلَوْ أَنَّمَا فِي الْأَرْضِ مِنْ شَجَرَةٍ أَقْلَامٌ

وَالْبَحْرُ يَمُدُّهُ مِنْ بَعْدِهِ سَبْعَةُ أَبْحُرٍ مَا نَفِدَتْ كَلِمَاتُ اللهِ إِنَّ اللهَ عَزِيزٌ حَكِيمٌ

صدق الله العلي العظيم

لقمان (٢٧)

In the name of God, Most Gracious, Most Merciful

(And if all the trees on earth were pens and the ocean [were ink], with seven oceans behind it to add to its [supply], yet would not the words of God be exhausted [in the writing]: for Allah is exalted in power, full of wisdom)

God Almighty has spoken the truth

Luqman (27)

(Ali, 1989: 1087)

Supervisor's Report

I certify that this thesis entitled as "***The Role of Raising Awareness of Collocation in Improving Iraqi EFL Learners' Reading Comprehension at the University Level***" has been prepared and written under my supervision at the *Department of English, College of Education, University of Misan,* in partial fulfillment of the requirements for the degree of Master of Arts in English Language and Linguistics.

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Examining Committee's Report

We certify that we have read this thesis which is entitled as "***The Role of Raising Awareness of Collocation in Improving Iraqi EFL Learners' Reading Comprehension at the University Level***" as an *Examining Committee*, and examined the student in its contents, and that in our opinions, it is adequate as a thesis for the degree of Master of Arts in English Language and Linguistics.

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Dedication

This thesis is dedicated to the memory of my grandparents and eldest aunt.

Karam Mohammed

1914-1963

Fatima Ja'far

1919-1997

Nooriya Karam

1947-2020

Acknowledgements

All praise is due to Almighty God whose mercy encompasses everything, and whose existence is always the fertile source of divine guidance that is sought throughout the intricacies and hardships of life. All thanks are due to Him for sustaining me on writing this thesis, and giving me the immense strength and patience to complete it.

My profound and sincere gratitude goes to my supervisor, ***Prof. Dr. Fatima Raheem Abdulhussein*** for guiding me through this research journey, and illuminating me with her inspirational ideas, constructive suggestions, and extensive expertise. I am deeply thankful for her assiduous attention to detail and immediate feedback through my thesis writing. She not only supervised this thesis, but also supported my views on *Linguistics* and its inevitability in the Iraqi EFL setting.

A word of appreciation and gratitude must be said to ***Prof. Dr. Nagham Qadoori Yahya (Tikrit University)*** for her tremendous, unflagging support and honest endeavours to sustain the accomplishment of this thesis. I am wholeheartedly grateful for her extraordinary generosity and increased cooperation which were beyond description. I will never forget the first day I met her at her office where I had the chance to meet many nice people who treated me kindly with overwhelming generosity.

I would also like to extend my gratitude to ***Prof. Dr. Abbas Lutfi (Al-Mustansiriyah University)***, ***Prof. Dr. Ala Hussein Oda (University of Basra)***, ***Asst. Prof. Dr. Nadia Majeed Hussein (Middle Technical***

University), and the other jury members who substantially contributed to the construction and validation of the tests of the study.

I can never express my gratitude for my college friends ***Ali Juma'a*** and ***Ali Abdulhussein***. The formers' kindness, honesty and spontaneity established a high motive for coping with my undergraduate studies, while the latter's wisdom, choice of words, and critical thinking as well as his research interests in *Applied Linguistics*, were an open window for discussing many central educational and linguistic issues, intensively and extensively.

I owe a debt of eternal gratitude to my parents, brothers and sisters for their unconditional support and encouragement. Besides, my great appreciation and thanks are also extended to my friends who stood by my side and never gave up on me in hard times, especially ***Jawad Hussein Ali***, ***Mahdi Kadhim***, ***Ali Naji*** and ***Saif Ali***, and to all the people who supported me during my academic journey.

Abstract

The present study highlights the importance of collocation and its relation to reading comprehension in the Iraqi EFL context. This study aims at enhancing Iraqi EFL university-level learners' reading comprehension through developing their collocational knowledge via awareness-raising activities.

This study is structured into four chapters. *Chapter One* is specified to the preliminaries: the problem of the study, hypotheses, procedures, limits, aims and significance. *Chapter Two* is concerned with providing a fairly comprehensive theoretical background of reading comprehension, language awareness and collocation, and reviewing some recent related studies. *Chapter Three* is the practical side of the study. It lays the foundation of the experimental framework of the study with special reference to sampling and equivalence. It describes the tests of the study, focusing on their construction, validity and reliability and administration, and gives a comprehensive description of the awareness raising-activities used for teaching collocations, ending with stating and discussing the results of the hypotheses. Concerning *Chapter Four*, it is specified to stating the drawn conclusions as well as the recommendations and suggestions for further academic investigations.

For achieving the aims of the study, the randomized subjects, pre-test–post-test control group design was adopted as the experimental design of the study. Besides, a collocational knowledge test and a reading comprehension test were constructed for stimulating data. The sample of

the study incorporated 62 second-year students majoring in English at the *College of Education/ Tikrit University.* The experiment involved eight sessions of instruction. The experimental group (N = 31) received vocabulary instruction based on collocations using five awareness-raising activities comprising promoting learners' noticing of collocations, classifying collocations, experiencing corpus data, cross-linguistic exploration, and reference-training, while the control group (N = 31) received vocabulary instruction as single lexical items. However, using the t-test formula for unpaired samples, the results derived from the collocational knowledge and reading comprehension pre- and post-tests showed that raising awareness of collocation produced an effect for the development of the collocational knowledge and reading comprehension of the experimental group as compared with that of the control group. Hence, the findings of the study indicate that raising awareness of collocation has a positive role in the development of Iraqi EFL learners' collocational knowledge and reading comprehension at the university level.

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List of Abbreviations

Abbreviation	*Equivalent*
BNC	***The British National Corpus***
COCA	***Corpus of Contemporary American English***
COBUILD	***Collins Birmingham University International Language Database***
KWIC	***Keyword in Context***
LA	***Language Awareness***
FSs	***Formulaic Sequences***
IF	***Item Facility***
ID	***Item Discrimination***

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Chapter One

Introduction

1.1 Problem

Vocabulary knowledge plays a central role in language acquisition. The British linguist David Wilkins (cited in Thornbury, 2002: 13) postulated that "without grammar very little can be conveyed, without vocabulary nothing can be conveyed" and Michael Lewis (1993: 89) stated that "lexis is the core or heart of language". These views stand in support with the beliefs that the central component of language acquisition is not grammar, but lexis, that is, words and word associations. Hence, lexical approaches in language teaching highlight the priority of lexis to the structural component of language, L2 learning and language use. Theoretical linguistics has also emphasized the crucial role of lexis in its descriptive investigations. Transformational-generative grammar, which previously focused on syntax as its essential domain, now devotes more central attention to the lexicon and the way it is organized and coded. Noam Chomsky, the father of modern linguistics and generative grammar theory, has recently maintained a 'lexicon-is-prime' stance in his Minimalist framework (Richards & Rodgers, 2001: 132).

An important phenomenon of vocabulary knowledge is how words naturally co-occur in texts. This phenomenon was first popularized by the British linguist Firth in the sense that words are related syntagmatically, forming ready-made non-idiomatic sequences (Bartsch & Evert, 2014: 48). These ready-made sequences are referred to as collocations. Hill (2000: 53) argued that about 70% of what is said, heard, read, or written consists of

collocations. Collocations are a significant aspect of the mental lexicon of the first language user as they are not ruled or produced by logic, but by convention and frequency and cannot be invented by non-native language users. Hence, collocation plays a crucial role in second and foreign language teaching and learning.

L2 language processing demands the formation of meaningful and systematic associations held between words in the L2 mental lexicon (Wolter & Gilstada, 2011: 1). Alison Wray (2002: 143) postulated that knowledge of a particular language not only requires the acquisition of individual vocabulary items of that language but also how these items fit together. Awareness of collocations decreases the burden of memorization and retention of words as the two or more words that form a particular association are stored together in memory and processed simultaneously, without having to consider every individual word, and at the same time supports comprehending the semantics of each word (Men, 2018: 13). In the same vein, Jespersen (cited in Wray, 2002: 7) indicated that "a language would be a difficult thing to handle if its speakers had the burden imposed on them of remembering every little item separately". Collocation is crucial for the interpretation and use of vocabulary in the sense that part of the meaning of a word is formed by the words it co-occurs with (Nattinger, 2013: 65). Besides, if not being aware of, collocations of a foreign language can interfere with the learner's mother tongue collocations and this can lead to unnaturalness, confusion and miscomprehension. In addition, collocational knowledge can help language users predict the following word/words in a particular sentence and the particular associations of words in a particular genre.

Considering the strong relationship between vocabulary knowledge and reading comprehension, increasing vocabulary knowledge results in enhancing reading comprehension, and immersion in reading leads to a good repertoire of vocabulary. As collocations are the most important and prevailing aspect of English vocabulary, it can be argued that one of the most significant reasons leading Iraqi EFL learners to face difficulties in reading comprehension is lacking awareness of collocation. This study is concerned with highlighting how raising awareness of English collocation can contribute to comprehending English texts.

1.2 Hypotheses

The study is conducted to test the following interrelated null hypotheses:

1. Teaching vocabulary as collocations via awareness-raising activities does not produce an effect for the development of Iraqi EFL learners' collocational knowledge.
2. Teaching vocabulary as collocations via awareness-raising activities does not produce an effect for the development of Iraqi EFL learners' reading comprehension.

1.3 Procedures

In order to conduct the study, the following straightforward procedures are followed:

1. Randomly selecting a representative sample from the second-year students majoring in English as a foreign language at the *Department of English/College of Education/Tikrit University.*

2. Dividing the sample into an experimental group and a control group and subjecting the two groups to pre-tests in collocational knowledge and reading comprehension.

3. Designing five awareness- raising activities for teaching vocabulary as collocations which represent the independent variable that is applied to the experimental group.

4. Subjecting the two groups to post-tests in collocational knowledge and reading comprehension.

5. Statistically analyzing the collected data and demonstrating the achieved results.

6. Presenting some conclusions, recommendations, and suggestions for further studies in the light of the results.

1.4 Limits

The study is limited to:

1. Second-year university students (morning studies) majoring in English as a foreign language at the *College of Education*/*Tikrit University*, during the academic year 2019-2020.
2. Lexical collocations that are detected in the *British National Corpus* (BNC) and incorporated in the *Oxford Collocations Dictionary for Students of English.*

1.5 Aims

The present study is undertaken to empirically investigate the role of five awareness- raising activities, which are promoting learners' noticing of

collocations, classifying collocations according to their part of speech, experiencing corpus data, cross-linguistic exploration and reference-training, in improving Iraqi EFL learners' collocational knowledge and reading comprehension at college-level.

1.6 Significance

The study will hopefully result in re-orchestrating the instruction of English vocabulary in reading comprehension classes as it tackles an important, neglected aspect of vocabulary in the Iraqi EFL setting. More specifically, it has the potentiality of guiding English language teachers to some empirically validated awareness-raising activities for teaching vocabulary as collocations that can enhance EFL learners' collocational knowledge which incorporates the improvement of vocabulary knowledge. Moreover, it highlights the importance of corpus-based learning in acquiring adequate representations of the semantics of English vocabulary. As a consequence of increasing collocational knowledge, EFL learners' reading comprehension becomes more facilitated and fluent.

Chapter Two

Theoretical Background and Related Studies

2.1 Introduction

This chapter is concerned with providing a fairly comprehensive theoretical background of the study, followed by reviewing and discussing some recent related studies. It is initiated with overviewing reading comprehension with an emphasis on its psycholinguistic dimensions and the factors that affect it. It moves to provide a brief account of language awareness and its significant and inevitable role in second language learning. It is also concerned with collocation as a linguistic concept with special reference to its semantic status, psychological reality and processing, corpus linguistics and language teaching. Then, a review and discussion of some recent related studies are also incorporated in this chapter to reinforce the potentiality of the present study.

2.2 Reading Comprehension

Reading comprehension has been extensively investigated within the domain of first and second language studies. It is such a complex process and understanding its nature is not an easy task as it demands a comprehensive involvement into the complex interactive psycholinguistic processes and many other influencing factors that are involved in discourse processing. As a consequence, this account is an attempt at providing a comprehensive definition of reading comprehension, as well as surveying its psycholinguistic components and processing patterns, and the factors

affecting this process. Moreover, it also includes a brief survey of the four levels of reading comprehension.

2.2.1 Defining Reading Comprehension

Generally, reading comprehension refers to the ability of extracting meaning out of written material and interpreting it in an appropriate way (Brassell & Rasinski, 2008: 15). It is a mechanism of simultaneously deriving and forming meaning through an interaction with a written material (Kong, 2019: 9). However, such definitions are simple and incomprehensive as comprehension is much more complex than these definitions suggest. Ashby and Rayner stated that "an important dimension of reading education includes understanding what skilled readers do when they read" (2006:52). Then, it is necessary to introduce a definition that rests on some necessary processes involved in reading comprehension as experienced by skilled, fluent readers. In this sense, reading comprehension is a linguistic, rapid, efficient, interactive, strategic, flexible, evaluating, purposeful, comprehending, and learning process.

Reading comprehension is a rapid and efficient process. It is characterized by rapidness in the sense that most materials are read at about 250 words per minute. Even texts that are associated with learning or professional practices are read at this rate unless the reader is new to the information and effectively endeavoring to learn it. Reading is described as efficient not just with reference to the overall rate of reading, but also with reference to the ways that different skills involved in processing keep working together smoothly. When reading, individuals are indulged in a process of coordinating quick and automatical word identification,

grammatical analysis, meaning construction, text comprehension formation, inference making, analytical evaluation and drawing on previous knowledge resources. Reading then, is an interactive process as it involves many cognitive processes keeping pace with each other. From another perspective, it is interactive as it is based on an interaction between the reader and the text (Grabe, 2009: 14).

Reading is a purposeful process not only in the meaning that individuals experience texts in various ways with accordance to the different reading objectives, but also in the meaning that any underlying motive behind reading a certain text is generated by a certain goal to be attained, whether charged internally or externally. Reading is also a comprehending process. When experiencing reading, readers attempt to perceive and understand what the writer intend to express by his text. The notion of comprehending is both conspicuous and fundamental. It is clear in that any individual could state that figuring out what is meant by a text is the basic goal of reading. As a direct consequence of being a purposeful and comprehending process, reading comprehension is also a learning process. This appealing aspect of comprehension is obvious to an individual who is involved in academic contexts where the most prevailing manner for students to obtain new knowledge is via reading (Grabe & Stoller, 2011: 12).

Reading comprehension is strategic, flexible, and evaluative. It is a strategic process as it demands some skills for predicting certain information in the text, focusing on the most important information, arranging and summing up information, controlling and coordinating comprehension with the purpose entitled by the reader, and repairing comprehension breakdowns. Reading is a flexible process. This flexibility adjusts and drives processes

and reading goals appropriately and aligns them with each other when there is an impediment in comprehension or a shift in the purpose of reading and so on. Reading comprehension is also an evaluative process as we monitor our reading and reflect how well is our comprehension processing. Evaluation takes place when readers decide the way they need to adequately respond to the text. Are they emotionally attracted to what is stated by the writer? Are they interested in the information? Do they agree with the writer? How does the text stand in comparison with other related texts? Do they like the stance and perspective adopted by the writer? Do they desire to learn more? Do they want to maintain reading? This archetype of text evaluation calls up our stances and emotional interaction with the text and the topic, and it demands a solid set of inference-making processes and the use of prior knowledge (Grabe, 2009: 15-16).

Reading comprehension is a process of "converting graphic input to linguistic conceptual objects (words and morphemes)" (Perfetti & Liu, 2005: 195). This reveals that reading comprehension is a linguistic process. It is impossible to read without creating graphemic-phonemic associations, without identifying the words to be read and the syntactic frames involving the words, and without establishing a considerable component of linguistic resources (morphological, syntactic and semantic) of the language of the reading material. Hence, the processing of linguistic information is crucial to reading comprehension.

2.2.2 Reading Comprehension Processes

From a psycholinguistic perspective, reading comprehension involves two types of processes: lower-level processes and higher-level processes.

They are supported by certain additional processes that are carried out in working memory. The lower-level processes are more automatic and linguistic than the higher-level processes which depend on the comprehender's background knowledge and his inference making skills. However, there is no assumption that the lower-level processes are less complex than the higher-level processes.

2.2.2.1 Lower-Level Processes

Lower-level processes encompass word recognition, syntactic parsing and semantic proposition. There is no comprehension without the smooth activation of these processes.

Word recognition is considered one of the most significant processes responsible for reading comprehension. Fast word recognition highly contributes to reading comprehension and differences in reading comprehension among individuals can emerge out of differences in word recognition (Perfetti, 2007: 357). Word recognition is a decisive factor (but not sufficient) in successful comprehension as readers who cannot recognize words efficiently have limited resources for grasping the meaning encoded in the text (Hayes & Flanigan, 2014: 3). It includes recognizing the word form effortlessly, activating the associations between the orthographic form and phonological information, activating the related syntactic and semantic knowledge, identifying the affixational morphology of complex words, and accessing the mental lexicon. These are the subskills or constituents that are used in describing word recognition skills. Automatic and fast word recognition is brought about when the written form of the word stimulates the lexical entries existing in the reader's mental lexicon that involve the

orthographic, phonological, semantic, and syntactic information necessary for processing. When there occurs a difficulty in word recognition of an unknown word, information from the context offers a significant contribution to word recognition (Grabe, 2009: 23).

Syntactic parsing is an essential component in reading comprehension as the structural organization of words into phrases and sentences has the potentiality of affecting meaning (Traxler, 2012: 141). It refers to the process of analyzing the grammatical structure of a sentence and identifying each word's place in this grammatical structure (Staub, 2015: 202). The ability to identify phrasal expressions, word order, and superordinate and subordinate relationships among clauses rapidly is what enables advanced readers to make clear how words are supposed to be comprehended. Syntactic parsing enormously contributes to disambiguating the meanings of words that have more than one meaning out of context (e.g. cut, bank, drop). Moreover, it helps a reader in determining what pronouns and definite articles are making reference to in prior text (Grabe, 2009: 30). Parsing is processed automatically without considerable effort or assiduous attention (unless something does not work right; then the process becomes less automatic). Hence, highly efficient processing – at the stage of initial syntactic parsing – is an essential linguistic necessity (Grabe & Stoller, 2011: 17).

At the same time that the first lexical items are being processed during reading and the first grammatical association of these items is analyzed for its syntactic information, information being derived from the lexical items and syntactic constructions is used to create semantic meaning components that are almost equal to phrase and clause units. These components are

referred to as semantic propositions. Semantic propositions are simultaneously constructed with word recognition and syntactic parsing and they are the central elements of discourse comprehension (Grabe, 2008: 31). A semantic proposition can be analyzed as a predicate and its arguments. Basically, that boils down to a verb (the predicate) and the role-players that go along with the verb (the arguments). So, in the sentence, *Smith sent his father a message*, *sent* is the predicate, *smith* is the subject/agent argument, *his father* is the indirect object/recipient argument, and *a message* is the direct object/theme argument. Propositions involve the action, state, or change of state that is being passed in an expression, and the arguments of the predicate show which characters or objects are incorporated in the action, as well as other information that specifies how the action is carried out (Traxler, 2012: 189).

2.2.2.2 Higher-Level Processes

Reading comprehension needs more than word identification, syntactic parsing and semantic proposition. Besides these lower-level processes, reading comprehension processing involves two other processes that are classified as higher-level processes. The process that is concerned with interconnecting the propositions or the main ideas is referred to as the process of constructing the text model of reading comprehension. However, constructing the text model is not sufficient for comprehension as the reader must use the content of the text to form a mental construction of the situation stated by the text or what is referred to as the situation model (Kintsch & Rawson, 2005: 210-1)

Integrating semantic propositions results in constructing the text model of reading comprehension. When the clause-level meaning units are generated, they form an expanding network of propositions from the text. The new clauses can be added to the network via the repetition of an idea, event, object or character; by referring to the same thing in different words; and via simple inferences that link a new meaning unit to the suitable places in the network (e.g. subordinate–superordinate, part–whole). As processing text information goes on, and new meaning units are hooked into the network, those propositions that occur repeatedly and that are significantly related to other information emerge as the dominant propositions of the text. More elaborately, they are rendered more active in the network. Those propositions that do not contribute any further to linking new information (i.e. propositions that are no longer mentioned nor referred to via implicating), or that do not contribute to the connection of inferences, become inactive rapidly and are unhooked from the network. Hence, unimportant propositions are taken away from the network, and only the more significant and useful ideas remain active (Grabe & Stoller, 2011: 20).

The text model of comprehension is just a representation of what is actually stated via the text. When a reader only grasps what is explicitly expressed, his comprehension will be depthless and might immediately break down as it does not support deeper understanding. As a consequence, the text content is used to build a situation model. The situation model refers to the mental construction of the situation expressed by the text (Kintsch & Rawson, 2005: 211). Singer and Leon (2007: 13) stipulated that “the situation model refers to the understander’s representation of the circumstances to which a discourse refers”. Generally speaking, interpreting

the text is affected by the reader's prior knowledge and motivation, his goals behind reading, task, text difficulty, inferences, and his attitudes towards the text, author and task. Hence, the reader rapidly begins interpreting the information encoded in the text in accordance with all of these constructs (Grabe & Stoller, 2011: 22).

2.2.3 Models of Reading Comprehension Processing

Researchers have different views on processing models of reading comprehension. These incorporate bottom-up, top-down and interactive models of reading, particularly in L2 settings. These models are representations of metaphoric generalizations derived from comprehension studies.

2.2.3.1 Bottom-Up Processing

David W. Carroll (2008: 56) defined bottom-up processing as "that which proceeds from the lowest level to the highest level of processing in such a way that all of the lower levels of processing operate without influence from the higher levels". A bottom-up model of reading is a pattern that takes up a one direction, part-to-whole processing of a text. The reader is supposed to be indulged in a mechanical process as the text is decoded letter by letter, word by word, and sentence by sentence (Grabe, 2009: 89). Text decoding involves a visual focus on the recognition of the letters, discerning the associations of the letters, identification of the words, establishing sentences through their grammatical structures and eventually orchestrating sentences into coherent discourse until the text meaning is finally determined. The comprehender's background knowledge, contextual information, and other higher order processing components as strategy use

have minor contributions to discourse processing, especially at beginning stages (Shahnazari & Dabaghi, 2014: 8).

The advocates of bottom-up processing stipulated that bottom-up models proceeds on the theory that the written text is based on hierarchical organization, and the reader's task is to initially process the minimalist linguistic (i.e. graphophonic) units and then associate these minimalist units to recognizing and comprehending the higher (e.g., sentence syntax) units (Ibid: 9).

2.2.3.2 Top-Down Processing

A top-down processing incorporates that knowledge at the higher levels might affect processing at the lower levels. For instance, a sentence context might affect the recognition of words within that sentence. More specifically, a top-down processing pattern is one in which what one expects highly contributes to processing (Carroll, 2008: 56).

In top-down models of comprehension, there is an assumption that comprehension is vigorously monitored by the reader (Grabe, 2009: 89).The advocates of top-down models suggested that text processing is initiated in the reader's mind with an assumption about the text meaning. The major aim of reading is extracting meaning from the text rather than mastering letters, graphophonic relations, and words. It is assumed that meaning and syntactic cuing are used by the reader to recognize unfamiliar words, and a text can be comprehended even if the reader is not able to identify each word. From this perspective, the text meaning that is regarded the basic goal behind reading, is accessed via activating the reader's previous knowledge of semantic, pragmatic, syntactic and discourse components. Then the reader will have

the ability to guess and deduce the meaning underlying propositions and words (Shahnazari & Dabaghi, 2014: 8).

2.2.3.3 Interactive Processing

The underlying assumption behind this view is that a reader can incorporate useful elements from a bottom-up processing and associate them with central elements from a top-down processing (Grabe, 2009: 89). However, interactive processing incorporates any model that "minimally tries to account for more than serial processing and that does so assuming that any parallel or array processing will interact" (Grabe, 1988: 60).

Pearson and Raphael (1989:3) asserted that interactive processing was firstly proposed by the researchers Rumelhart (1977) and Stanovich (1980). Rumelhart proposed a processing pattern feeding back from various knowledge sources in a manner that different processing levels undergo interactions with each other. In this prospect, processing of information was viewed as parallel rather than sequential. Then, Stanovich introduced the interactive-compensatory reading model as a refinement of Rumelhart's interactive model. Stanovich stated "a process at any level can compensate for deficiencies at any other level" (1980: 36). Depending top-down processing, a reader who is weak at word recognition might compensate for this deficiency if he is good at the knowledge of the text topic. On the other hand, a reader who is efficient in word recognition, but has little or no background of the topic might depend on bottom-up processing for this compensation. Furthermore, readers can use prior knowledge of the topic as a strategy for eliminating the cognitive load when grammatical complexity renders extracting meaning difficult (Shahnazari & Dabaghi, 2014: 12).

2.2.4 Factors Influencing Reading Comprehension

Reading comprehension compromises three central factors: the reader, the text and the interactions between reader and text. It is the give-and-take between these three factors that affects the reader's performance to attain a certain comprehension goal (Kong, 2019: 16).

2.2.4.1 Reader

The factor of reader incorporates the traits or the characteristics of the individual experiencing text comprehension that have the potentiality of impacting reading comprehension processing (Alderson, 2000: 32). Bachman and Palmer introduced a reference of testee characteristics that can be taken as indicators of paramount traits of reader, involving personal characteristics, background knowledge and affective schemata (1996: 63).

Personal characteristics involve the attributes which are not part of testees' linguistic competence but might still affect their achievement in language tests. In reading comprehension, personal characteristics involve age, gender, ethnicity, residence status, mother tongue, formal education, type and amount of past experience, cognitive, biological, and behavioural status and so on (Kong, 2019: 16).

Background knowledge, also referred to as real-world knowledge, is the "knowledge structures in long-term memory" (Bachman & Palmer, 1996: 65) or the interlinked mental framework that represents knowledge. Background knowledge enormously influences reading comprehension and there is a dynamic interaction between text processing and background knowledge during reading. In other words, reading comprehension involves

an interaction between new knowledge in the text and the prior knowledge of the reader (Kong, 2019: 17).

Affective schemata are viewed as the affective or the emotional correlations of background knowledge. In language tests, testees' affective schemata might considerably impact the manner in which they respond to test tasks, either enhancing or delimiting their ability to make use of the whole extent of linguistic knowledge and metacognitive strategies at their resources (Bachman & Palmer, 1996: 65-6). While experiencing reading, the reader's motivation and aptitude towards the text language may result in either a satisfactory or a non-satisfactory reading performance. High levels of anxiety can lead readers to face threatening reading conditions and eliminate the advantage of using basic strategies that can assist them in comprehension. Readers experiencing low anxiety are characterized by reading at a deeper level (Kong, 2019: 17). Fransson (1984) compared readers who reported state anxiety – i.e. who are anxious while experiencing reading – with those who reported trait anxiety – i.e. who are commonly anxious individuals. Franson found that high trait anxiety resulted in making readers ignore the indicated goal of the reading text, and anticipate threats never planned or indicated by the experimenter. In addition, he found a relationship between intrinsic motivation and state anxiety: learners who reported experiencing anxiety during reading revealed weak intrinsic motivation. Learners who experience low trait anxiety display the tendency to indulge in deeper comprehension, whereas high state-anxious learners show the tendency to be surface comprehenders.

2.2.4.2 Text

Many text dimensions that might expedite or constrain reading comprehension have been studied in a variety of disciplines. These dimensions involve text contents, text genres, text organizations and text readability (Alderson, 2000: 60-1).

2.2.4.2.1 Text Content

Just as it is generally established that readers' background knowledge will influence their comprehension, so it is also generally accepted that text content has the potentiality of affecting the way readers process written discourse. It has long been acknowledged that an abstract text is more difficult to understand than a concrete one. The more concrete, conceivable and engaging the text is, the more readable it will be. The content of the text interacts with the schematic knowledge of the reader as texts placed in ordinary settings, on familiar issues are likely to be processed more easily than those that are not. The quantity of text information profoundly influences recognition and retention, as does the density of propositions. Furthermore, the degree to which information is indicated explicitly in the text, demanding less inference-making processing, has a significant impact on retention, but there is also some evidence that texts that attempt to spell out all the presuppositions they contain are more difficult to process. For instance, legal scripts are generally difficult to trace in a precise way because they deliberately attempt to avoid rendering the text ambiguous and open to interpretation (Alderson, 2000: 62).

2.2.4.2.2 Genre

Genre is a term that is used to refer to "a distinctive category of discourse of any type with or without literary aspiration" (Swales, 1990: 33). Crystal stated that "a genre imposes several identifiable characteristics on a use of language, notably in relation to subject-matter, purpose (e.g. narrative, allegory, satire), textual structure, form of argumentation, and level of formality*"* (2008: 210). Text genres involve exposition, description, narration, persuasion and so on. Research into the differences between expository and narrative genres has indicated that expository genres are more difficult to process than narrative ones as a consequence of the considerable variety of relations among text units in expository genres with the large variety of contents. The macro-structures of narrative texts have the potentiality of facilitating comprehension as they assist the comprehender in quickly constructing a conceptual model of the text. Moreover, there is an assumption that literary texts are harder to handle since they are characterized by the tendency of involving multiple interpretations and exhibiting a wide and complex range of language (Kong, 2019: 18).

2.2.4.2.3 Text Organization

One dimension that can distinguish one text genre from another is the general organization of the text. Text organization – the way that the paragraphs are related to each other and the patterning of signaling the relations held between ideas– has long been an issue of investigation. Even within the domain of one text genre, research in this issue indicates that different organizations might result in different outcomes or processes. For native and non-native readers of English, texts structured according to the

sequential occurrence of events can be read faster and are easier to comprehend than texts whose temporal sequencing is distorted. Furthermore, texts with a steady spatial organization, e.g. depictions of objects that trace an obvious logical progression, from outside in, or left to right, are easier to comprehend and retain. Moreover, text that is coherent is much easier to understand than less coherent text (Alderson, 2000: 67).

2.2.4.2.4 Readability

Text readability is measured by various linguistic dimensions, involving syntax, semantics, morphology, and discourse (Bailin & Grafstein, 2016: 2). Since syntax and lexis can result in difficulties in text, measures of the complexity of syntax and lexical density of texts are generally employed in determining text readability. However, texts with high syntactic complexity and lexical density are characterized by the tendency to be more difficult to process than texts with low syntactic complexity and lexical density (Alderson, 2000: 73).

2.2.4.3 Interaction

The reader and text are relatively static factors in the process of reading comprehension. It is the interaction between reader and text that encompasses the realization of the reading comprehension process as reader manipulates all the available resources, skills and strategies to recreate the mental representation of text (Kong, 2019: 19). In this regard, interaction is discussed with reference to the purpose behind reading and strategy use.

2.2.4.3.1 Purpose

The purpose behind reading a text greatly affects comprehension processing. Reading an academic text for understanding a particular phenomenon is highly different from reading a pocket novel for entertainment. Goals are closely related to readers' motivations and attitudes towards the reading process and the social environment in which reading is carried out. For high qualified students in academic contexts, goal setting is highly considered to the extent of being part of their conscious awareness. Being consciously aware of and attentive to reading goals has a positive impact on the comprehension process. Goal setting assists students to be able to focus on the information and issues that are important to them and expect how much effort is required for carrying out the goals behind reading. The intuition that reading comprehension has a significant relation to goal setting has been empirically investigated in a plethora of studies (Brannon, 1998; Narvaez et al., 1999; van den Broek et al., 2001).

2.2.4.3.2 Strategy Use

Strategy use is one of the most fundamental issues that have been investigated in reading comprehension studies. O'Malley and Chamot (1990: 1) defined strategies as "the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information". Language strategies are classified as metacognitive, cognitive, and social/affective strategies. Metacognition refers to "one's knowledge concerning one's own cognitive processes and products or anything related to them." It also involves "the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they

bear, usually in the service of some concrete goal or objective" (Flavell, 1976: 232). Hence, metacognitive strategies are viewed as executive skills that serve as managing functions in directing the learning process via planning, monitoring, and evaluation. Cognitive strategies are perceived as problem-solving strategies that involve rehearsal, inferencing, summing up, transferring, deducting, and elaboration strategies. They play a significant role in facilitating individuals' acquiring of knowledge and skills. Social/affective strategies include the strategies that facilitate bringing about positive emotional attitudes towards language learning (Zhang, 2018: 57). Afflerbach, Pearson, and Paris (2008: 386) viewed the strategies used in reading as "deliberate, goal-directed attempts to control and modify the reader's efforts to decode text, understand words, and construct meanings of text". However, when these strategies are used continuously, they become automatic actions that do not require conscious behavior on the part of the reader (Grabe, 2009: 52).

2.2.5 Levels of Reading Comprehension

Reading comprehension is classified into different levels. The first taxonomy of reading comprehension levels is Barrett's taxonomy, in which reading comprehension is divided into five levels. They are: the literal comprehension level, the sequential level, the inferential comprehension level, the evaluation level and the appreciation level (Ruiter & Dang, 2005: 121). However, the most common referenced levels are four as listed by Smith (2001:186) and these are the literal, inferential, critical and appreciative levels.

The literal level refers to "reading in order to understand, remember, or recall the information explicitly contained in a passage" (Richards &

Schmidt, 2010:483). This level involves recognizing and recalling details of main ideas, sequences, comparisons, cause and effect relationships and character traits (Gamble &Yates, 2002: 123).

The Inferential level refers to finding information that is not directly stated in a passage, drawing on the reader's experience and intuition, and inferencing (Richards & Schmidt, 2010:483). This level involves inferring supporting details, main ideas, sequences, comparisons, cause and effect relationships and character traits, predicting outcomes and interpreting non-literal language (Gamble &Yates, 2002: 123).

The critical level refers to a kind of reading in which the reader is concerned not only with what is stated in the text, but also how the subject matter is depicted. The reader attempts to figure out how the point of view is put forward and what it means in a certain context. It also refers to making a judgment or evaluating the correctness of what is read (Jasim, 2007:326-327). Spears stated that critical reading "requires keeping an open mind and developing healthy skepticism, not accepting unquestioningly what you read just because it is in print but also not rejecting ideas simply because they are different from your beliefs" (2006:271). In other words, it refers to making judgements of reality or fantasy, fact or opinion, adequacy and validity, appropriateness and worth, desirability and acceptability (Gamble &Yates, 2002: 124).

The fourth level of reading comprehension is the appreciative level. The appreciative level refers to "reading in order to gain an emotional or other kind of valued response from a passage" (Richards & Schmidt, 2010:483).

2.3 Language Awareness

Language Awareness (LA) is a term that appears frequently in a widening range of educational and academic contexts. It is an exciting dynamic area of interest and activity. It is mentioned more and more by researchers working in language and education. The concept of language awareness is rather broad in scope, and is usually referred to with reference to other relevant concepts, as explicit knowledge, knowledge about language, metalinguistic knowledge, and metalinguistic awareness (Wach, 2014: 51). So, what is exactly meant by language awareness? What is its role in language learning? And are there certain taxonomies for awareness raising-activities?

2.3.1 Defining Language Awareness

Language awareness (LA) is defined by the Association for Language Awareness as "explicit knowledge about language, and conscious perception and sensitivity in language learning, language teaching and language use" (cited in Svalberg, ٢٠١٢: 376), where there is a strong emphasis on conscious knowledge about language. It is also referred to as "metacognition, as explicit knowledge, as ability to focus on form and even as a synonym of the 'back to grammar' approach" (Bolitho et al., 2003: 257). Therefore, it involves ensuring that the learners understand why they are learning and practicing the language skills being taught, and how they individually do so. Malakoff stated that metalinguistic awareness means to know the way of approaching and solving some kinds of problems which require particular linguistic and cognitive abilities (1992: 518) and this involves both high competence and efficient performance. Gombert (1992:

13) referred to it as the deliberate planning and controlling of language processing, which incorporates a completely conscious approach in a way similar to the approach adopted by James and Garret who referred to language awareness as an ability to reflect on the functional aspect of language (1991: 3).

Language awareness is recognized as "mental attribute which develops through paying motivated attention to language in use and which enables language learners to gradually gain insights into how languages work" (Bolitho et al., 2003: 251). It can be viewed as "the development in learners of an enhanced consciousness of and sensitivity to the forms and functions of language" (Carter, 2003: 64). Hence, it includes both rendering the learners' knowledge and skills which have been promoted in the course of their experience of language, explicit and conscious, and enhancing the learners' skills of observation and analysis of language.

The journal *Language Awareness* indicates its aims and scope in the sense that it promotes work that investigates the role of conscious knowledge about language in language learning, teaching and language use and how such conscious knowledge can best be mediated by instructors (cited in Berry, 2014: 22). Al-Hejin stated three requirements that are necessary to be aware of an experience: (1) an individual should display a behavioral or cognitive change as a consequence of the experience; (2) the individual should inform that they were aware of the experience; (3) the individual should have the ability to illustrate this experience (2004: 3).

However, language awareness has often been used interchangeably with consciousness-raising. In other words, the term awareness is often used in a

synonymous way with consciousness, even though the latter term seems to be used somewhat less often.

2.3.2 Language Awareness and L2 Learning

In explaining the role of awareness in L2 learning, Schmidt viewed awareness as involving three levels: perception, noticing, and understanding. He stipulated that unconscious learning of language is not possible, and that noticing is the essential and sufficient precondition for turning input into intake (1990: 129). This indicates that language learners are able to learn only what they consciously attend to. This prospect is a representation of what is referred to as the strong version of the *Noticing Hypothesis*. In his later work, Schmidt (2001: 40) introduced a less strong version of the *Noticing Hypothesis*: "people learn about the things they attend to and do not learn much about the things they do not attend to". This implies that attention via noticing is a facilitator of learning, but some learning aspects are achievable without attention.

Language awareness is basically principled on that learners generally learn better when effectively engaging, and freely devoting energy and attention to the learning process. Furthermore, paying meticulous attention to language features can result in making learners able to bridge the gap between their own performance in the target language, and the performance of advanced users of the language. Enabling learners to notice a particular language feature leads to making that feature salient to them, so that it becomes more observable in future input. Hence, it can contribute to rendering learners psychologically agile to acquire the targeted language feature (Bolitho et al., 2003: 251).

Developing learners' awareness of language features is considered as the essential step in promoting their learning. The basic objective of language awareness is to assist language learners in noticing for themselves the way language is naturally used for communication so that they will be aware of what they lack and be fully alert to learning (Tomlinson, 1994: 122–3). Noticing is the basic level in which learners' attention is drawn towards certain features of language including collocation. Working on this level, learners can attain the second deep level of cognitive awareness by using numerous cognitive strategies for deep processing of the noticed features in the input, thus getting an ideal chance of internalizing them (Ying and O'Neill, 2009:183). Little (1997: 94) described a third, higher level of metacognitive awareness when learners "develop a psychological relation to their learning content and process", and viewed this as an essential component to learners maintaining effective control of their language learning. Another major objective involves assisting learners to be autonomous, with constructive attitudes towards the language, and to getting on in language learning outside the class. Since noticing is the essential step in which learners' attention is directed to language aspects, it is reasonably required to be incorporated in language teaching to develop learners' awareness of new language aspects (Bolitho et al., 2003: 252-3).

The initial procedures in achieving these objectives are usually observational rather than analytical, and include indulging the learners in emotional interaction with a likely interesting text, so as to develop the ability to obtain their own psychological representation of the text, and to express their own response to it. Then, the learners are required to pay attention to a certain feature of the text, to cooperate with their classmates to

find examples of this feature, and to make discoveries and state generalizations about its usage. They are then promoted to examine their generalizations by looking for other examples in other texts (Ibid).

2.3.3 Awareness-Raising Activities

Few taxonomies of activities have been proposed for rendering learners aware of various language features. Dave and Jane Willis' taxonomy (cited in Lewis, 1997: 53), which eventuates in "an increased awareness of and sensitivity to language", consists of seven stages, as follows:

1. Learners search to state patterns or usages and the structural aspects that are in association with them.
2. Learners make classifications on the basis of similarities and differences.
3. Learners are required to examine a generalization about language features using reliable resources.
4. Learners are promoted to look for similarities and differences between patternings in English and those of their own mother tongue.
5. Learners manipulate language specified to display basic patternings.
6. Learners retain and re-construct parts of a text, selected to foreground an important feature.
7. Learners are trained to make use of reference sources.

This taxonomy is adopted as a general guide for the construction of the activities used for raising learners' awareness of collocation in the current study. These activities are fully demonstrated in *Chapter Three*.

2.4 Collocation and Related Issues

The phenomenon of collocation, which refers to syntagmatic relationships held between vocabulary items of a particular language, has been investigated within a number of linguistic domains such as semantics, psycholinguistics, corpus linguistics and language teaching. Hence, this account on collocation is constructed with reference to these domains.

2.4.1 Defining Collocation

The phenomenon of collocation was popularized in the 1950s by John R. Firth, the British authority in linguistic contextualism who coined the term collocation, deriving it from the Latin word collocare (to place together, to assemble). However, long before that, educational research in the field of first and second language acquisition was already in concern with collocation, conceived as chunks of language that are committed to memory by individuals as whole units and which represent the main way for having language fluency. At the beginning of the 20th century, Harold Palmer, a pioneer in the field of English as a Foreign Language, also noticed the prevalence of polylogs, or *known units* in language (Seretan, 2011: 9). Harold Palmer (cited in Stubbs, 2009: 17) referred to collocation as "a succession of two or more words that must be learnt as an integral whole and not pieced together from its component parts". He assembled more than 6,000 quite common collocations that he incorporated in his instruction, so that learners could memorize them as wholes (Seretan, 2011: 9).

In 1957, J.R. Firth introduced the study of collocation as a significant aspect for exploring semantic statements of meaning in descriptive linguistic studies in his paper *Modes of Meaning*. In consequence, research on

collocation can be chronologically divided into three periods: (1) the 1960s, when research on collocation was actively investigated with a focus on its theoretical basis and various issues and problems associated with collocation were taken into consideration; (2) the 1970s, when the procedural approaches to investigating collocations was introduced; and (3) from the 1980s and beyond, when the findings and attainments of researching collocation started to come out (Hori, 2004: 3).

Recent studies in corpus linguistics have revealed in evidence that a far larger proportion of language is made up of collocational items than was previously conceived. However, there is no general consensus over a definition that encapsulates the enormous complexity of collocations (Tsai, 2011: 12). The most common perception of the concept of collocation—as indicated in the contextualist paradigm or construed in earlier language investigations—is that of a relationship of affinity that exists between words in a particular language, and that is affirmed by the regular co-occurrences of words, i.e., by the frequent presence of words in the context of each other (Seretan, 2011: 10). Firth postulated that "collocations of a given word are statements of the habitual and customary places of that word" (Firth, 1957: 181). Firth acknowledged that in identifying a word meaning, the context of the word has a decisive and significant role: "You shall know a word by the company it keeps!" (Firth, 1957: 179).

Characterizing the concept of collocation in terms of affinity is not enough for determining its specific nature as definitions based on affinity remain fairly vague, since they say nothing about its linguistic specificity and features. Lacking a meticulous definition, collocation, as a linguistic term, was gradually incorporated over the time with disorientation, and was

adopted in different areas for indicating various language phenomena. This disorientation was amplified by the instances given by many researchers, which are characterized by high inconsistency and which indicate the differences in viewing collocation. In spite of the diversity of perceptions and viewpoints, two major perspectives can be identified regarding the concept of collocation: one that is essentially based on frequency or statistics, and one that is more linguistically driven (Seretan, 2011: 10). In other words, studies on collocations involve two types of approaches: qualitative and quantitative. These two approaches can be simultaneously or separately used for identifying collocations. The quantitative approach is concerned with the repetitive occurrences of collocations as indicated by corpuses and statistical measurements of word associations, while the qualitative approach, which is also referred to as the phraseological approach, is concerned with preference and judgement of native language users (Khoja, 2019: 22).

2.4.1.1 The Statistical Approach to Collocation

Collocations are identified on the basis of their frequency in the sense that they occur repeatedly and are perceived as usual lexical associations (Seretan, 2011: 11).The statistical or frequency-based approach to collocation is associated with the statistical notion of collocation which holds that "words are collocates if, in a given sample of language, they are found together more often than their individual frequencies would predict" (Jones and Sinclair, 1974: 19). Words which are found in such a relation can be said to promote the predictability of one another since the occurrence of one makes the occurrence of the other more probable than it would otherwise be (Sinclair, 1966: 417-418). Hence, in the contextualist

paradigm, collocations are referred to in terms of usual word co-occurrence, or as vocabulary items that reveal the "tendency to occur together" (Sinclair, 1991, 71) and, Sinclair defined collocation as "the occurrence of two or more words within a short space of each other in a text" (Ibid, 170). In this sense, collocation can be defined as "the relationship a lexical item has with items that appear with greater than random probability in its (textual) context" (Hoey, 1991: 7). The higher the chances are, the more likely for a word association to be considered as a collocation. Moon (1998: 26) regarded a collocation as that which "typically denotes frequently repeated or statistically significant co-occurrences, whether or not there are any special semantic bonds between collocating items".

2.4.1.2 The Phraseological Approach to Collocation

While the statistical approach to collocation is directly in concern with the frequency of collocations that exist in language corpuses and statistics generated by corpus devices, the phraseological approach is concerned with the meanings of collocations as recognized and specified by native language users (Khoja, 2019: 28). According to the phraseological approach, collocations are indicated in *"*a scalar analysis, ranging in the form of a continuum from transparent, freely recombinable collocations at one end to unmotivated and formally invariable idioms at the other*"* (Barfield and Gyllstad, 2009: 6). In other words, if word combinations have the potentiality of creating a continuum placing idiomatic expressions at one end and free word combinations at the other end, collocations are most likely to be located between these two extremes. Hence, the phraseological approach concerns itself with the determining criteria of collocation and separating it from other kinds of word combinations. It is concerned with classifying

schemes of phraseological units on the basis of their scalar degrees of fixedness. Word combinations are commonly classified into idioms, collocations and free word combinations, which makes a continuum from the most static to the most free. Hence, collocation is placed in the fuzzy zone between free combinations and idioms. Prior research draws essential distinctions between the three kinds of word combinations on the basis of semantic transparency, semantic specialization of one element in the combination and commutability /substitution of one of the elements (Men, 2018: 21).

The commutability or substitutability criterion refers to whether and to what extent the substitution of the constituents of the word combination is fixed. Idioms, collocations and free word combinations are significantly differentiated according to this criterion. Idiomatic expressions are fixed in structure; the lexical elements cannot be replaced with synonyms. For example, one can say *kick the bucket (to die)*, but not *kick the pail or boot the bucket* . Also, in the previously mentioned example, there is no real bucket to kick (Ibid: 21). Free combinations which can be defined as sequences of words that adhere to the grammatical and syntactic rules of a given language, can be characterized as non- fixed combinations whose elements are freely substitutable. They are a mixture of lexical constituents that abide by the common syntactic structures, and these lexical constituents are not bound to each other (Nesselhauf: 2003, 225). Collocations are unlike free word combinations in the sense that collocational elements are characterized by a kind of restriction in the commutability of their constituents (Nesselhauf, 2005: 14). However, fixedness of collocational expressions is ranged from a small degree of restriction of one constituent to

tight restriction of both constituents and this restriction is illustrated by the number of synonymous items either constituent can take.

Another criterion in used in differentiating collocations from the other types of word combinations is semantic transparency. Semantic transparency refers to "whether the elements of the combination and the combination itself have a literal or a non-literal meaning". Free combinations are semantically transparent, i.e. the meaning of the whole combination can easily be arrived at through our prior understanding of the meaning of the constituent parts. To put it another way, the constituents are used in their literal senses, e.g. beautiful house, beautiful garden, beautiful scene, and new book, great book, interesting book (Maurer-Stroh, 2004: 26). Collocations are the same as free word combinations with accordance to semantic transparency. For instance, the meaning is transpicuous in both *commit a crime* as a collocation and *control the crime* as a free word combination. Hence, collocational expressions can be distinguished from idioms by adopting the criterion of semantic transparency as idiomatic combinations have figurative meanings and do not adhere to a current literal interpretation (Men, 2018: 21).

In the phraseological approach, collocations are distinguished from free word combinations on the basis of the senses or meanings of the constituents composing them, and it is claimed that for a certain combination of words to be considered as a collocation, either of the constituents need to have a specialized meaning. What the phrasologists mean by the specialization of meaning are figurative senses (as feed in feed the myth, shake in shake one's belief), technical senses (as obtain in obtain a warrant) and delexical senses (as take in take a photograph). Requiring either of the constituents to have a

specialized meaning aims to rule out free combinations, for which the constituents composing them are used in their literal senses. However, it is not always simple to conceive whether the sense of one constituent is specialized (Ibid: 22).

2.4.2 Classifying Collocation

Collocations are divided into two wide groups: grammatical collocations and lexical collocations. Regarding grammatical collocationss, they are made of a noun and adjective or verb plus a preposition or a grammatical structure, such as an infinitive or a clause (Benson et al., 1990: ix). Benson et al. (Ibid: x-xv) differentiated between various kinds of grammatical collocationss as follows:

1. Noun + preposition e.g. *reaction to.*
2. Noun + to- infinitive e.g. It is a *pleasure to* see you.
3. Nouns + that–clauses e.g. Smith made a *promise that* he would do it.
4. Preposition + noun e.g. *by chance*.
5. Adjective + preposition e.g. *ready for* learning.
6. Adjective + to – infinitive e.g. It was *necessary to* work.
7. Adjective + that- clause e.g. she was *afraid that* he would lose the job.

Concerning lexical collocations, the major associations of them are nouns, adjectives, verbs and adverbs. The substantial difference between lexical collocation and grammaticall collocation is that the former does not involve prepositions, infinitives or clauses (Alsulayyi, 2015: 33). Benson et al. (1990: xxiv-xxviii) distinguished between several structural types of lexical collocations as follows:

1. Verb (which means action) + noun /pronoun/ prepositional phrase e.g. *reach an agreement, ask for advice*.
2. Verb (which means eradication or cancellation) + noun e.g. *make a contribution, stake a reputation*.
3. Adjective + noun e.g. *constructive advice, a dramatic difference.*
4. Noun +verb e.g. *the difference lies.*
5. Quantifier + noun e.g. *a piece of information.*
6. Adverb + adjective e.g. *absolutely magnificent, statistically significant*.
7. Verb + adverb e.g. *wave frantically*.

2.4.3 Collocation and Corpora

In surveying the history of researching collocation, it comes to the realization that the study of collocation has been greatly affected and driven by the development of corpus linguistics. Hence, it is highly important to briefly explore corpora, concentrating on the representation of collocations in concordance lines, and focusing on the *British National Corpus (BNC)* as it is the corpus on which the present study is based. So, what is meant by corpora and corpus linguistics? How are collocations represented in corpora?

2.4.3.1 What is Corpus Linguistics?

A corpus is a compilation of texts assembled together in a systematic format, often for the purposes of linguistic research (Johansson, 1991: 3). In other words, it is "a body of written text or transcribed speech which can serve as a basis for linguistic analysis and description" (Kennedy, 1998: 1). Corpora are made of texts electronically stored on computers, which allow researchers to make use of special software (referred to as concordancers) to

carry out automatic inquiries and obtain illuminating insights into the structural and regular aspects of naturally occurring language (Szudarski, 2018: 4).

The branch of linguistics that is concerned with studying and analyzing these texts or corpora is corpus linguistics. In recent years, corpus linguistics has achieved immense popularity, both as a tool for investigating authentic language and for improving materials for language teaching. By employing various computer-based tools, corpus linguists can carry out extensive explorations concerning different issues in language use. For example, corpus linguistics has substantially contributed to the domain of investigating language patterns in use. Corpus linguistics affords an absolutely indispensable tool for analyzing naturally-occurring language and can offer crucial and illuminating insights into the various ranges of language use in different situations, such as spoken versus written texts, or formal interactions versus informal conversations (Reppen & Simpson, 2010: 89).

Corpus linguistics can bring substantial benefits for language researchers. Corpus approaches can be adopted in various linguistic research areas: language teaching and learning, discourse studies, translation studies, language for specific purposes, pragmatic analysis, sociolinguistic studies, media discourse, stylistics and language politics. Hence, corpus data can be employed to investigate various issues of language. Corpus-based linguistics is a naturally empirical methodology. Corpus-based studies aim at providing data-based characterization of language and they assist in illustrating the normal patternings and structures of language used in real communication. It is absolutely crucial to indicate that corpus-based studies depend on

automatical, data-based searches of authentic texts, which present accurate information that is widely not available to linguistic intuitions (Szudarski, 2018: 8). As illustrated by Hunston, corpora are "a more reliable guide to language use than native speaker intuition" (2002: 20). Hence, it can be stated that corpus linguistics is an empirically based approach that depends on frequency-based analyses as a way of investigating the typical tendencies of natural language use. Significantly, if we determine that native language users' intuitions are not dependable when it comes to establishing the most frequently occurring constituents in language, the very same task seems to be even more problematic for L2 users who are definitely less exposed to authentic language material than native and proficient users. In this respect, then, corpora can be considered as a substantial reference which yields penetrating insights into language that might not be available to less competent language users (Szudarski, 2018: 8).

The availability of corpus findings, along with the increasing availability of tools for exploring corpora (for example, *MonoConc, WordSmith Tools, Paul Nation's vocabulary programs, the Lextutor website*) provides a considerable assistance to the language class. Corpus-based investigations into certain language features and extensive references such as *The Longman Grammar of Spoken and Written English* will also serve language educators well via presenting a basis for determining which language features and structures are paramount and also how different features and structural frames are used. For the first time, language educators and material design experts can rely on a basis for choosing the material that is being introduced and for the assertions that are being made about language features. Rather than grounding pedagogical decisions on intuition and/or

combinations that have existed in textbooks over the years, these decisions can now be based on actually occurring patterns of language use in different settings (such as spoken or written, formal or casual settings) (Reppen & Simpson, 2010: 101).

2.4.3.2 Collocations in Corpora with Reference to the BNC

The development of computer technology and building corpora highly contributed to the study and teaching of collocation. Using computerized corpora, it is easy to notice sequences of words that occur repeatedly in different texts. Experiencing concordance lines, any user of a certain large corpus, as the *BNC* which *"*aims to represent the universe of contemporary British English and capture the full range of varieties of language use*."* (Aston & Burnard, 1998: 5), can indicate that some words form collocation and that the prevailing occurrence of these word associations is not a result of chance, but is an indicator of a linguistic phenomenon.

In order to illustrate how collocations are reached and represented in corpora, the *BNC* is used as it incorporates 100 million words taken from a vast range of sources of written and spoken language (90% of the data are written and 10% spoken), built to demonstrate a large cross-section of British English from the second part of the 20th century. In other words, it covers a huge variety of genres (e.g. spoken, fiction, magazines, newspapers, and academic) as shown in Figure (2.1) (Aston & Burnard, 1998: 28).

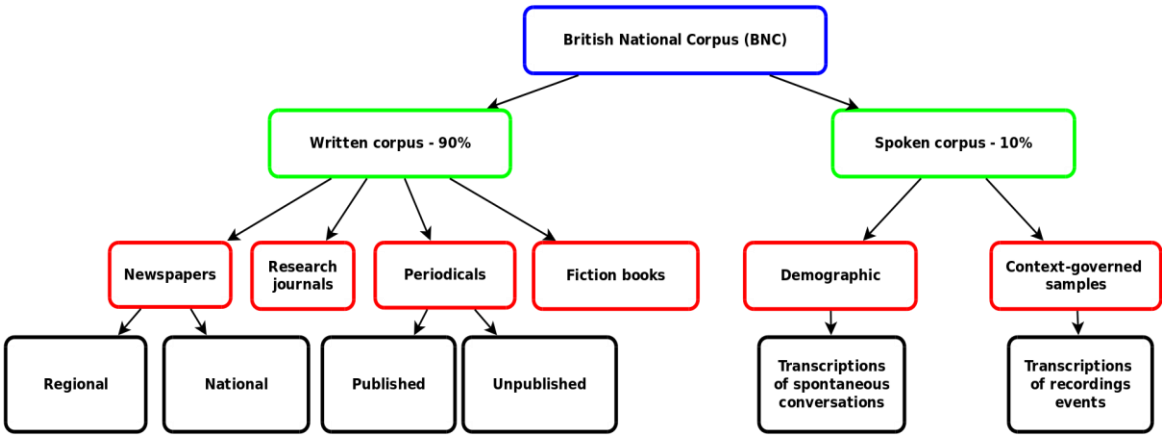


Figure 2.1: The Data Sources of the BNC

The *BNC* is a free of charge web-based interface that provides easy access to its contents (see *Figure 2.2*). As a starting point for usage, the user needs to type a word in the search box through *List* and click on *Find matching strings* and it will provide access to the word frequency and all the texts in the corpus that contain this word in the form of concordance lines by clicking on the highlighted target word (see *Figure 2.3*). Through *KWIC*, the user can reach these texts directly in a more elaborate format. It is also worth mentioning that the *BNC* allows the user to explore the word across different sections that represent different genres.

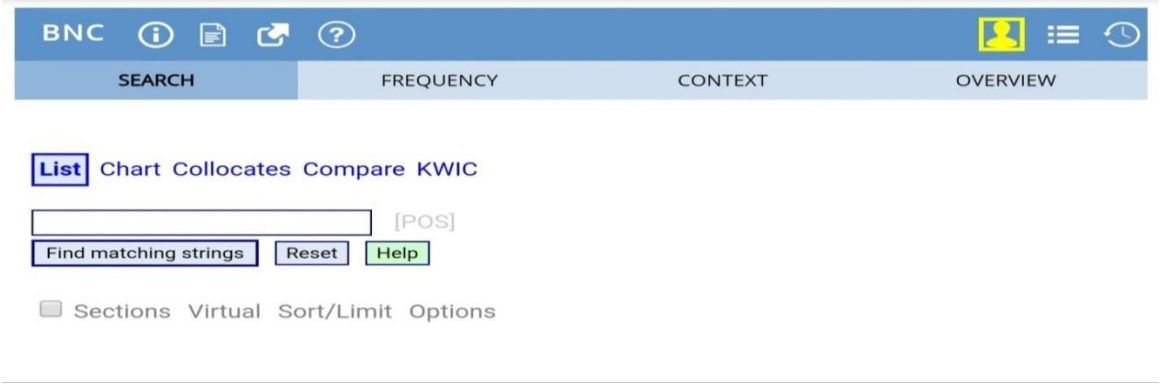


Figure 2.2: The BNC Interface as Accessed Online with FREQUENCY and CONTEXT as Basic Components

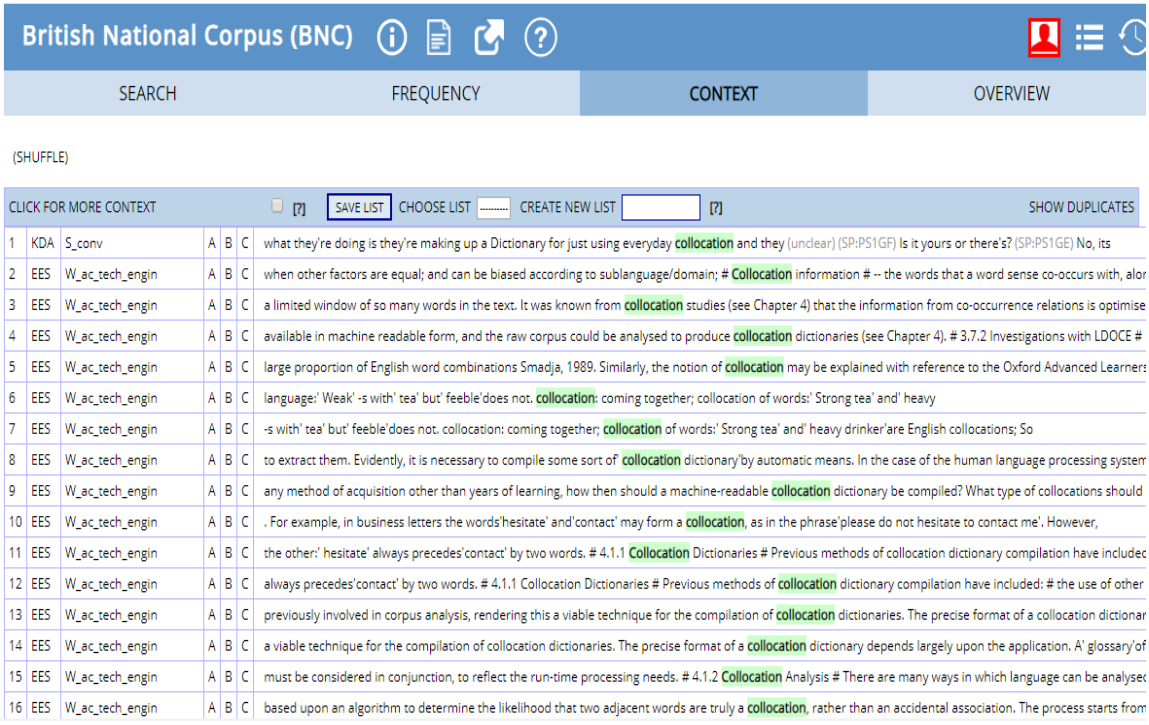


Figure 2.3: A Result of Searching for a Word in the BNC in the Form of Concordance Lines with the Target Word being Visually Salient

The *BNC* also provides the user with an expanded context for every concordance line, with the text source and the time at which the text occurred (see *Figure 2.4*). This is highly significant since a lot of the concordance lines of the corpus are not complete sentences.

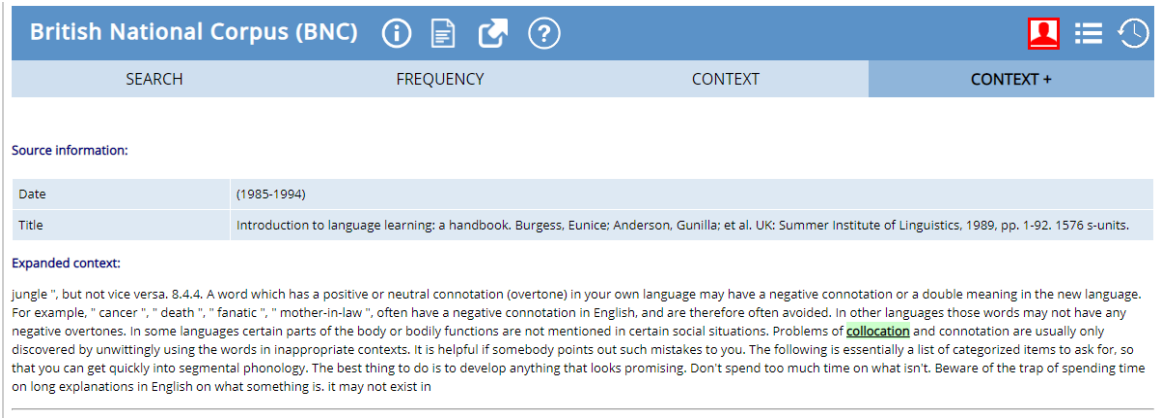
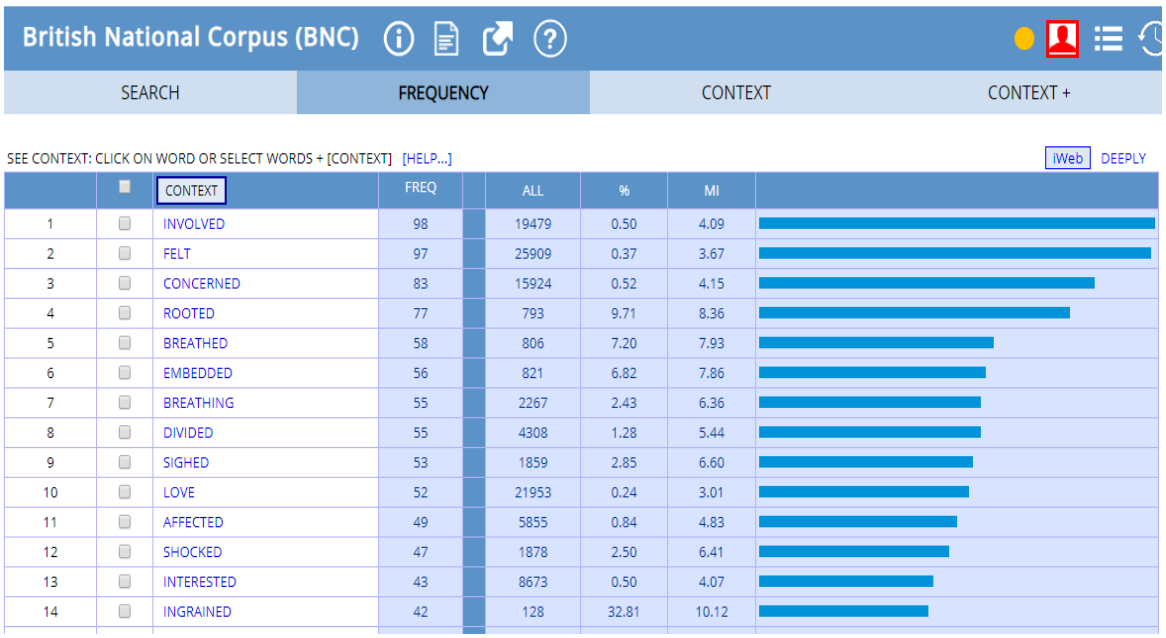


Figure 2.4: An Expanded Context for a Concordance Line

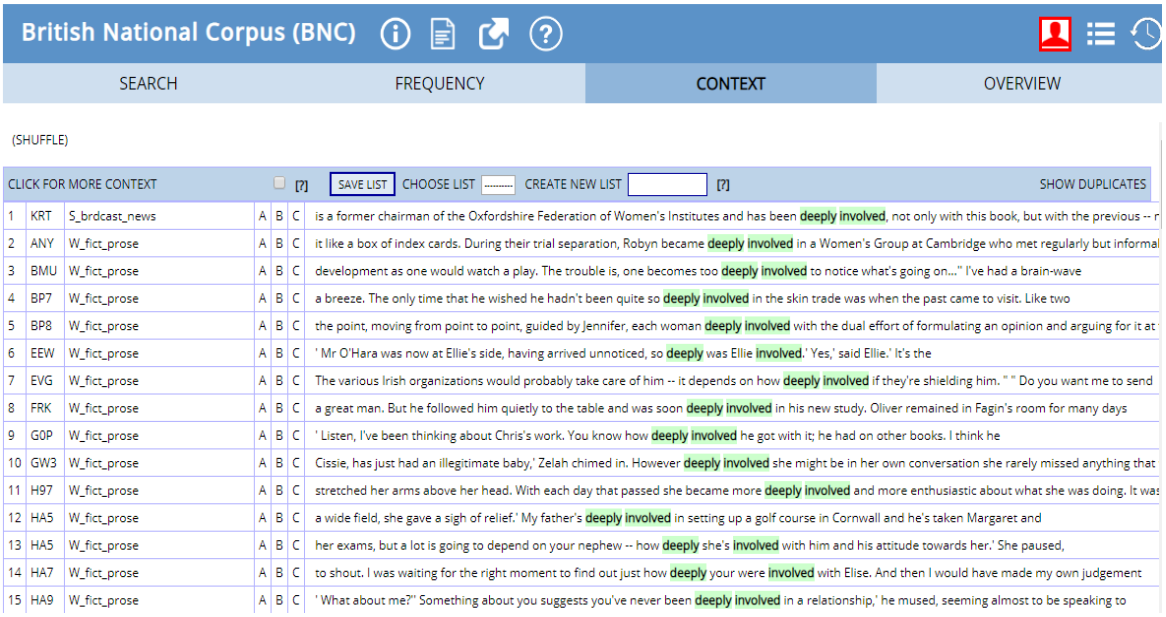
Although the corpus user can survey the concordance lines for looking for collocations, the *BNC* specifies a search box for collocations (see *Figure 2.5*). For searching collocations, the user needs to click on *Collocates*, and type the word under investigation in the word/phrase search box. Square brackets are used with the word in order to make the corpus search around all the grammatical forms of the word. However, it is important to remember that various grammatical forms of words can attract different collocational partners (Szudarski, 2018: 76). However, When typing a word in the word/phrase search box, the result will be all the collocates of the target word in a descending order. Moreover, the *BNC* is equipped with the mutual information (MI) test that is used for identifying collocations. Instead of depending on raw frequency, this test informs the user whether the co-occurrence of lexical items is statistically significant, or whether it can be accredited to arbitrariness. MI scores more than 3, are generally viewed as thresholds that state a significant associating lexical pattern as shown in Figure 2.6 (Ibid: 28). However, collocations can also be displayed in the form of concordance lines (see *Figure 2.7*).

Figure 2.5: The BNC Search Box for Collocations



		CONTEXT	FREQ	ALL	%	MI
1		INVOLVED	98	19479	0.50	4.09
2		FELT	97	25909	0.37	3.67
3		CONCERNED	83	15924	0.52	4.15
4		ROOTED	77	793	9.71	8.36
5		BREATHED	58	806	7.20	7.93
6		EMBEDDED	56	821	6.82	7.86
7		BREATHING	55	2267	2.43	6.36
8		DIVIDED	55	4308	1.28	5.44
9		SIGHED	53	1859	2.85	6.60
10		LOVE	52	21953	0.24	3.01
11		AFFECTED	49	5855	0.84	4.83
12		SHOCKED	47	1878	2.50	6.41
13		INTERESTED	43	8673	0.50	4.07
14		INGRAINED	42	128	32.81	10.12

Figure 2.6: A Result of Searching for the Collocates of a Word in the BNC



1	KRT	S_brdcast_news	A	B	C	is a former chairman of the Oxfordshire Federation of Women's Institutes and has been deeply involved, not only with this book, but with the previous -- r
2	ANY	W_fict_prose	A	B	C	it like a box of index cards. During their trial separation, Robyn became deeply involved in a Women's Group at Cambridge who met regularly but informal
3	BMU	W_fict_prose	A	B	C	development as one would watch a play. The trouble is, one becomes too deeply involved to notice what's going on..." I've had a brain-wave
4	BP7	W_fict_prose	A	B	C	a breeze. The only time that he wished he hadn't been quite so deeply involved in the skin trade was when the past came to visit. Like two
5	BP8	W_fict_prose	A	B	C	the point, moving from point to point, guided by Jennifer, each woman deeply involved with the dual effort of formulating an opinion and arguing for it at
6	EEW	W_fict_prose	A	B	C	' Mr O'Hara was now at Ellie's side, having arrived unnoticed, so deeply was Ellie involved.' Yes,' said Ellie.' It's the
7	EVG	W_fict_prose	A	B	C	The various Irish organizations would probably take care of him -- it depends on how deeply involved if they're shielding him. " " Do you want me to send
8	FRK	W_fict_prose	A	B	C	a great man. But he followed him quietly to the table and was soon deeply involved in his new study. Oliver remained in Fagin's room for many days
9	G0P	W_fict_prose	A	B	C	' Listen, I've been thinking about Chris's work. You know how deeply involved he got with it; he had on other books. I think he
10	GW3	W_fict_prose	A	B	C	Cissie, has just had an illegitimate baby,' Zelah chimed in. However deeply involved she might be in her own conversation she rarely missed anything that
11	H97	W_fict_prose	A	B	C	stretched her arms above her head. With each day that passed she became more deeply involved and more enthusiastic about what she was doing. It was
12	HA5	W_fict_prose	A	B	C	a wide field, she gave a sigh of relief.' My father's deeply involved in setting up a golf course in Cornwall and he's taken Margaret and
13	HA5	W_fict_prose	A	B	C	her exams, but a lot is going to depend on your nephew -- how deeply she's involved with him and his attitude towards her.' She paused,
14	HA7	W_fict_prose	A	B	C	to shout. I was waiting for the right moment to find out just how deeply your were involved with Elise. And then I would have made my own judgement
15	HA9	W_fict_prose	A	B	C	' What about me?" Something about you suggests you've never been deeply involved in a relationship,' he mused, seeming almost to be speaking to

Figure 2.7: A Result of Searching for a Collocation in the BNC in the Form of Concordance Lines

2.4.4 Collocation Processing and Reading Comprehension

Collocation plays a central role in second and foreign language teaching and learning as efficient L2 processing is at least partially contingent upon the existence of systematic and meaningful connections between vocabulary items in the L2 mental lexicon (Wolter & Gyllstad, 2011: 430). Wray (2002: 143), among other scholars, stipulated that knowledge of a language not only requires knowledge of the single vocabulary items of that language, but also how they are used together. Investigations into the world of memory revealed that vocabulary items are stored and retrieved in a network of associations (Stevick, 1976: 18). Knowing the meaning of an individual vocabulary item requires the acquisition of its associations with other items: therefore, teaching this item in an effective way requires presenting it in its network of associations. Furthermore, helping students chunking vocabulary items meaningfully supports their ability to retain items more efficiently (Nattinger, 2013: 65).

Townsend and Bever stipulated that "mental processes in general and linguistic processes in particular come in two flavors—habits and computations" (2001: 1). Much of the language we use is characterized with a kind of formulacity. In spite of the potential productivity of language, many vocabulary items are characterized by the tendency to co-exist with some items more often than with others, synonyms in appearance but not necessarily in actuality, and those combinations and re-combinations often seem to be differently stored and conceptualized in the mental lexicon. In other words, collocation incorporates solid connections between vocabulary items. This connection can be merged into one type of the meanings of a vocabulary item, identified as the collocative meaning. Collocations are

approached by Hoey (2005: 5) as psychological associations between vocabulary items and "evidenced by their more frequent occurrence together in corpora more often than is explicable in terms of random distribution". The associative power of items is so marked in the mental lexicon and the amount of collocations is estimated by Kelly and Stone (1975) and Pawley and Syder (1983) to be close to the amount of single words. Hence, collocations as formulaic sequences are perceived as a significant aspect of L1 and L2 lexical competence. Collocations are essential to language acquisition in the sense that they are not re-created each time of use but rather have a static form, conventional meaning, and are highly familiar to a particular speech community (Vilkaite & Schmitt, 2019: 1). They have a processing advantage as they are processed faster than novel utterances. This occurs as a result of their predictability and frequency (Siyanova-Chanturia, 2013: 245).

It has been proved that language users have the potentiality of noticing, learning, and storing frequent and predictable linguistic data that are structured into phrases. This has been acknowledged because recalling and using language as chunks is easier and more economic than as an amalgamation of single word units (Wray, 2002: 143). Aitchison (2003: 86) indicated that collocation is one of the most common types of stimulus words being responded to in a test. *Water, sea, shaker and lake,* for example, were among the top ten most common responses to the lexical item *salt*, which reveals that lexical items are stored in the mental lexicon in association with their collocational partners. Slips of the tongue formulate another strong form of evidence that lexical items are associated with their collocates in the mental lexicon, as there are cases when "people sometimes

start out with one phrase and then get ‘derailed’ on to a familiar routine, as in Hungarian restaurant for ‘Hungarian rhapsody” (Ibid: 91). Vocabulary items constituting a collocational relation are perceived to be storaged in a single remembered set from which they can be restored (Greenbaum, 1974: 80).

Therefore, the collocational relation held between vocabulary items is psychologically real and occupies a central position in the mental lexicon of language users. Yet these bonding relations between vocabulary items committed to memory in the mental lexicon of native language users may be remarkably unsimilar to those in the mental lexicon of a L2 learner, which, as Meara (1984: 232) stated it, is “in general more loosely organised than the native speaker’s lexicon”. In other words, these associative bonds are successfully activated successfully for native language users, but most likely cause serious difficulties for L2 learners. For example, when both a native language user and an L2 English learner are required to express *strong coffee*, the word *strong* could be simply connected to *coffee* by native language users, but learners may state other words like *powerful* rather than strong. Thus, non-native language users need conscious awareness and efforts to form these associative bonds between single vocabulary items.

Collocations are psychologically real in the sense that they are stored as wholes in memory. Hence, collocation entails some characteristics that are important for reading comprehension which can be stated as follows:

1. The first characteristic is that every word in the mental lexicon is incorporated in a strong relation to the words with which it generally makes associating bonds. Not only do these associating bonds assist the L2 learner

in memorizing these words, they also support the definition of the semantic scope of a word, for "every useful collocation is another step towards understanding the concept of a word" (Brown, 1974: 3), and in enabling the learner to derive meaning from context.

2. The second characteristic incorporates that collocations allow individuals to recognize what types of vocabulary items they can anticipate to be encountered together. The associative potential linking vocabulary items in syntagmatic relations helps L2 learners in predicting the co-occurring items to a greater or lesser extent. We have certain anticipations about what types of information might emerge from what has preceded (Nattinger, 2013: 70-71).
3. The third characteristic is that collocations are processed faster than single items. This is a highly significant characteristic as it results in fluent comprehension processing and relieving learners of needing to focus on each single lexical item and enables them to attend to the overall structure of discourse. Recognition of collocations as whole units spares readers some of the processing effort required to interpret a sentence (Khou, 2008: 75). In other words, a satisfactory knowledge of collocation eliminates the vocabulary processing burden during reading as one of the main reasons leading learners to face difficulties in reading is not the density of new single lexical items, but the density of unrealized collocations (Hill, 2000: 53).

2.4.5 Collocation in the ELT Context

The pedagogical significance of collocations generated a high motive for their investigation, compilation and analysis in the domain of language teaching. Thus, collocation has been taken as a crucial category of lexical

patterning to become an essential component in language teaching courses and designing materials. Collocations are objectively viewed as one of the most dynamic aspects in the formation and perception of all naturally occurring text in the mental lexicon of any language user (Hill, 2000:49). Any L2 learner is required to develop a satisfactory collocational competence to be able to comprehend and use collocational items smoothly and efficiently. Thus, teaching collocations is crucial in English language classes. Hill (Ibid: 59) advocated introducing collocations from the first session, since "collocation is not an added bonus which we pay attention to once students have become sufficiently advanced".

The most significant approach to language teaching that puts emphasis on teaching collocation is the *lexical approach*. The *lexical approach* appeared in 1993 as coined and described by Michael Lewis. The solid foundation, on which this approach is established, is that a significant facet of learning a language involves having the ability to recognize and generate lexical units as chunks (Lewis, 2008: 8). Lewis posited his perceptions that lexis should be the most essential issue in teaching English postulating that "language consists of grammaticalised lexis, not lexicalised grammar" (1993: 34). As the traditional view splits language into grammatical structures and vocabulary items, the *Lexical Approach* asserts that language is made of chunks which, when associated, generate extended coherent texts. The chunks are of different kinds and four different fundamental types are pinpointed. They are words, fixed expressions, semi-fixed expressions and collocations. According to Lewis, collocation forms a central issue in the lexical approach and a basic way for the application of the lexical approach

in the class is to concentrate on collocations (Lewis, 2008: 8-11). Thus, the concept of *collocational competence* emerged to existence (Hill, 2000: 49).

From a pedagogical point of view, the *lexical approach* strongly emphasizes teaching collocations. This emphasis is due to some reasons: the non-arbitrariness of the lexicon, predictability of collocations, the high percentage of collocations, and the retrieval of collocations from memory as whole chunks. Furthermore, complex ideas are often expressed lexically as well as collocations highly contribute to enhancing fluency in speaking and allow language users to listen at the speed of speech and read smoothly as they allow language users to recognize multi-word units rather than processing everything word-by-word (Ibid: 53-5).

The acquisition of L2 collocations can be enhanced by teaching. Language teachers can help in facilitating the acquisition of collocations in many effective ways. Teachers could introduce collocational items as they teach new vocabulary. Whenever new vocabulary items are presented, it is better to teach their collocations as well. Teachers can also render learners aware of the potential role of collocations in language learning by requiring them to focus on two- or three-word units rather than noticing single words. Thus, noticing might result in raising learners' awareness of collocations. Hence, teachers can develop their learners' collocational competence of vocabulary they already know. A learner with 2,000 single vocabulary items who is adequately supplied with substantial collocational knowledge is more communicatively proficient than a learner with 2,000 vocabulary items who is not equipped with satisfactory collocational knowledge (Farooqui, 2016: 242).

Woolard (2000: 33-36) advocated the autonomous learning of collocations, but with the teacher's assistance and direction. She suggested that learners should be equipped with research techniques and strategies for enabling them to detect substantial collocational items by themselves, in both the language encountered inside and outside the class. Hill (2000: 61) strongly asserted the teacher's role of directing learners to be autonomous compilers of collocational items. If learners are promoted to "notice common collocations in the texts they meet, they will be able to select those collocations which are crucial to their particular needs" (Woolard, 2000: 35). Different sources that can assist learners in maximising their chances to increase their collocational knowledge outside the language class have been proposed. First, collocational dictionaries can introduce accurate collocational material by presenting collocations in authentic examples. Second, corpora such as the BNC and COCA constitute more excellent and reliable sources of collocations than dictionaries (Farooqui, 2016: 242).

2.5. Related Studies

In order to be fully aware of the potentiality of the current study and to obtain illuminating insights into researching collocation in SLA and ELT, some related studies have been reviewed, with a greater focus on their aims and results.

2.5.1 Koç (2006)

Koç's study investigated the role of explicit teaching of vocabulary as collocations in developing Turkish EFL learners' awareness of collocations, as well as its role in developing vocabulary retention. Eight sections of 160 EFL learners with upper-intermediate proficiency level participated in this

experimental study. The experimental group consisted of four sections and the other four were assigned as the control group. The experimental group received vocabulary teaching based on presenting words as collocations, while the control group received instruction focusing on introducing words as single items. For this investigation, a test of vocabulary retention, three tasks for the three treatment sessions, transcribing verbal processes of one of the sections of the experimental group, and retrospective interviews with the instructors who participated in this study, were used as instruments for data collection.

Analyzing the qualitative data indicated that the subjects of the experimental group developed collocational awareness to the extent that they were able to recognize words as collocations in any of the given texts and categorize lexical collocations. The quantitative data analyses showed that instruction of vocabulary based on collocations resulted in enhancing vocabulary retention. In the light of the results of this study, explicit teaching of vocabulary as collocations is recommended for enhancing collocational competence and developing retention of vocabulary.

2.5.2 Khou (2008)

The major aim of Khou's study is to explore the relationship between recognition of formulaic sequences (FSs) and L2 reading comprehension. Furthermore, the relationships between recognition of these sequences and the participants' overall English mastery and their gender, and the ways used in overcoming difficulties arising from unknown FSs are also cultivated. The study involved 53 Iranian university students participating in the quantitative part, and 6 Iranian students studying in the University of Liverpool at the

graduate level voluntarily participating in the qualitative part which incorporated a combination of interview, recall and introspective methods.

The results of the study showed a moderate relationship between recognition of FSs and reading comprehension. In addition, a positive moderate relationship was found between participants' overall proficiency and FSs. It was also found that males and females performed similarly on the recognition of FSs. Moreover, it was found that readers use a number of linguistic and nonlinguistic cues and knowledge sources to overcome difficulties arising from unknown sequences in a text.

2.5.3 Balcı & Çakır (2012)

This study aimed at investigating the role of teaching words as collocations in developing vocabulary knowledge. The participants of the study were fifty-nine seventh grade pupils from two classrooms in a primary school in Konya, Turkey. The participants of the study were divided into two groups: an experimental group and a control group. The experimental group received vocabulary instruction as collocations; the control group received vocabulary instruction as single items through classical techniques as antonyms, synonyms, definitions. Statistical analysis indicated that instruction of vocabulary via collocations resulted in a better learning of words than teaching them using the classical techniques as well as enhancing retention of new vocabulary items. Instruction of vocabulary via collocations can be a significant factor in enabling learners to memorize and use the new vocabulary items easily in primary school EFL classes. Hence, according to the results of the study, it is highly recommended that teachers of English

should be encouraged to pay attention to the collocational aspect of English in order to develop vocabulary knowledge.

2.5.4 Lin (2015)

This study investigated the role of *COCA* which is a free corpus that can be easily accessed on the internet, in developing EFL learners' awareness of collocations. The participants of the study were three college-level learners taking a summer course for teaching English known as *Freshman English*. Their years of learning English varied from 7 to 12 years. Instruction spanned a month and classes were conducted two times a week, with each class extending to 4 hours. Total instruction hours extended to 32 hours. In order to carry out the study, four instruments and several exercises were used for data collection. These instruments were a questionnaire, a standardized test, two surveys, and the COCA corpus. Exercises included collocational grids and translations.

From the exercises of translations and collocational grids, and the participants' responses to the surveys before instruction began and after it was over, the researcher concluded that the participants' awareness of collocations was raised. One of the participants greatly developed her awareness of collocation. While for the rest, although their awareness of collocation appeared limited after taking the course, they reported that COCA was of use to them in searching for acceptable lexical expressions.

2.5.5 Daskalovska (2015)

Daskalovska' study aimed at investigating the role of corpus-based instruction in acquiring verb–adverb collocations. The participants of the study were 46 Macedonian college-level students majoring in English. They

were divided into two groups: an experimental group (N = 21), and a control group (N = 21). Corpora and concordancers were introduced to the experimental group. The instructor explained the use of the BYU-BNC concordancer, and the participants exercised searching for lexical items of their own choice, and analyzing concordance lines. Then the participants were provided with a list of 10 verbs in order to complete some corpus-based tasks. The control group received instruction of collocations similar to that of the experimental group, but based on classical activities usually found in textbooks such as filling in gaps, matching, and multiple choice exercises. However, the results derived from the statistics of the pre- and post-tests indicated that the participants that learned collocations with the aid of the corpus-based activities acquired better collocational knowledge than the participants who learned collocations via traditional activities.

2.5.6 Nguyen and Webb (2017)

The aim of Nguyen and Webb's study was to investigate EFL learners' collocational knowledge at the 1,000, 2,000 and 3,000 word frequency levels, and explore the relation held between collocational knowledge and single vocabulary items, supported with determining the strongest predictors of collocational knowledge. The participants of this study were 100 Vietnamese EFL learners majoring in English at the university level. The study incorporated two tests: a receptive collocation test, and a receptive knowledge of single vocabulary items test (Vocabulary Levels Test).The results showed that the participants' knowledge of collocations potentially declined at each level. The results also indicated that there were significant positive correlations held between collocational knowledge and single

vocabulary items, and that node word frequency was the strongest predictor of receptive collocational knowledge.

2.6 Discussion of Related Studies

The survey of the related studies has revealed that collocation is an essential issue in the English L2 classes as it represents a very significant component in the vocabulary knowledge of L2 learners for reaching a native-like mastery of the semantics of English vocabulary items. Moreover, explicit teaching of collocations is recommended for increasing collocational knowledge and enhancing vocabulary retention. Khou's (2008) study showed a positive moderate relationship between participants' overall proficiency and FSs, including collocations, and a moderate relationship between recognition of FSs and reading comprehension. In a similar vein, Nguyen and Webb's (2017) study indicated that there are significant positive correlations held between collocational knowledge and single vocabulary items in EFL learners. Besides, Koç's (2006) study showed that explicit teaching of vocabulary as collocations resulted in enhancing collocational competence and developing retention of vocabulary. In addition, Balcı & Çakır's (2012) study resulted in that introducing vocabulary as collocations can be a significant factor in enabling learners to memorize and use the new vocabulary items easily in EFL classes. Lin's (2015) and Daskalovska's (2015) studies showed that corpus-based instruction of vocabulary as collocations is effective for rendering EFL learners aware of the phenomenon of collocation and developing their collocational knowledge.

Surveying these studies indicates that increasing learners' repertoire of collocations can lead to better representation and retention of English vocabulary in the EFL learners' mental lexicon and can effectively support

their vocabulary processing. Hence, the current study is an attempt at investigating the applicability of teaching vocabulary as collocations to the Iraqi EFL college-level setting. This is an issue of a considerable importance as it can bridge a gap in the literature of teaching vocabulary in the form of collocational items for developing Iraqi EFL learners' collocational knowledge and reading comprehension.

Chapter Three

Methodology and Results Analysis

3.1 Introduction

This chapter is mainly concerned with providing a detailed account of the methodology and results analysis. More specifically, it is concerned with laying the foundation of the experimental framework within which this study is carried out, with special reference to sampling and equivalence. Furthermore, it proceeds to provide a full description of the instructional material, instruction, the construction of the tests with reference to validity, reliability, item analysis, scoring, and administration. Then, it ends with stating the results of the hypotheses, followed by a discussion justifying these results.

3.2 Experimental Design

The term experimental design refers to the logical structure within which an experimental study is carried out. The experimental design is one of the basic statistically-oriented research designs through which researchers endeavor to find cause-and-effect relations held between variables (Riazi, 2006: 112). Best and Khan stated that "the experimental design is the blueprint of the procedures that enable researchers to test hypotheses by reaching valid conclusions about relationships between independent and dependent variables" (2014:177). Experimental research is usually carried out with an exceptional degree of control and manipulation over the setting factors and variables of the research so that any change in the outcome

measure can be accredited to the independent variable (Ary et al., 2010: 271).

An experimental design circumstantiates the requirements of the comparisons needed for testing the research hypotheses. However, the most essential requirement for an experimental design is its appropriateness for testing the research hypotheses previously stated. In other words, the mark of a convincing experiment is neither being complex nor simple, but being appropriate. Another significant requirement is providing effective control so that the influence of the independent variable can be assessed as obviously as possible. Unless the extraneous variables are under control, the researcher can never enjoy the confidence of the apparent relation between the research variables. Randomization is an essential procedure to maintain the effective control (Ibid). Random assignment is a fundamental requirement for a true experimental research design as it strengthens the internal validity of the study. Comparison groups require the homogeneity or equivalence of all the possible factors at the initiation of the study. Having this, the experimenter will achieve a substantial level of confidence that a statistically significant difference between the two groups is accredited to the independent variable. Anyway, random assignment does not necessarily affirm that all extraneous variables are under control because random assignment is still based on chance in the distribution of the recruited subjects (Phakiti, 2014: 63).

Hence, in order to achieve the aims of the study, the researcher used the *randomized subjects, pretest–posttest control group design* as shown in Table (3.1). In the *randomized subjects, pretest–posttest control group design,* the researcher randomly distributes subjects into the experimental

and control groups and administers a pretest on the dependent variable(s). The treatment (the independent variable) is undergone only by the subjects of the experimental group, after which the two groups are assessed on the dependent variable(s). Then the scores of the two groups are compared by the researcher on the post-test (Ary et al., 2010: 307).

The major strength of this design is its initial randomization, which can ensure quantitative equivalence between the control and experimental groups before the initiation of the treatment. This design thus keeps under control most of the extraneous variables that might threaten internal validity (Ibid).

Table 3.1

Randomized Subjects, Pretest–Posttest Control Group Design

Experimental group	**Pre Test**	**Independent Variable**	**Post Test**
Control group	**Pre Test**	_____	**Post Test**

3.3 Population and Sample Selection

The researcher reduced the population of the study to the second-year college students majoring in English as a foreign language at the *College of Education*/*Tikrit University* during the academic year 2019-2020. The total number of the population is 123 students, male and female. They were distributed into two sections: A and B. Sixty Two students were randomly

selected out of these sections as the subjects of the control and experimental groups, with each consisting of thirty one students. Hence, ensuring that the two groups are homogenous concerning certain constructs is an inevitable procedure.

3.3.1 Equivalence of Samples

In order to assign any difference between the two groups at the end of the study to the independent variable represented by raising awareness of collocation, the researcher made sure that the subjects of the control and experimental groups were approximately equal in age, parents' educational level, and collocational knowledge and reading comprehension performance.

3.3.1.1 Subjects' Age

Applying the t-test formula for unpaired samples, it is found out that the experimental and the control groups are homogenous concerning the subjects' age as there is no statistically significant difference between them. This is so as the computed t-value (0.89) is less than the tabulated t-value (2.0) at a significance level of (0.05) (see *Table 3.2* and *Appendix 3*).

Table 3.2

T-test Statistics for the Subjects' Age (in months)

Group	N	$\overline{x}$	SD	S^2	DF	Computed t. Value	Tabulated t. Value	Level of significance
Experimental	31	241	9.57	91.6	60	0.89	2.00	0.05
Control	31	239	7.97	63.5				

3.3.1.2 Parents' Educational Level

Parents' educational level is one of the variables that have to be controlled in language teaching studies. Applying the Chi-square formula, it is found out that there is no statistically significant difference between the control and experimental groups with reference to fathers' educational level at a significance level of (0.05). This is so as the computed Chi-square value is (5.9) with a (9.4) Chi-square tabulated value (see *Table 3.3*). However, the same formula is also applied to mothers' educational level. It is found out that there is no statistically significant difference between the control and experimental groups with reference to mothers' educational level at a significance level of (0.05). This is so as the computed Chi-square value is (2.68) with a (9.4) Chi-square tabulated value (see *Table 3.4*).

Table 3.3

Frequencies of Fathers' Educational Level of the Two Groups

Group	*Illiterate*	*Primary*	*Secondary*	*Preparatory*	*University*	*Total*	*Computed Chi-Square*	*Tabulated Chi-Square*
Experimental	*2*	*5*	*4*	*8*	*12*	*31*	*5.9*	*9.4*
Control	*3*	*5*	*5*	*14*	*4*	*31*		
Total	*5*	*10*	*9*	*22*	*16*	*62*		

Table 3.4

Frequencies of Mothers' Educational Level of the Two Groups

Group	*Illiterate*	*Primary*	*Secondary*	*Preparatory*	*University*	*Total*	*Computed Chi-Square*	*Tabulated Chi-Square*
Experimental	*5*	*7*	*4*	*11*	*4*	*31*	*2.68*	*9.4*
Control	*6*	*12*	*3*	*8*	*2*	*31*		
Total	*11*	*19*	*7*	*19*	*6*	*62*		

3.3.1.3 Subjects' Performance in the Pre-tests

In this study, the subjects' performance in the collocational knowledge and reading comprehension tests plays a central role in equating the two groups in order to ascertain that the difference in performance at the end of the study, if there is any, between the two groups is due to the independent variable. The t-test formula for unpaired samples is used to determine if there are statistically significant differences between the mean scores of the experimental and control groups. Concerning the subjects' performance in the collocational knowledge pre-test, it is found out that the computed t-value is (1.17) with a (2.00) tabulated t-value. Thus, there is no statistically significant difference between the mean scores of the two groups at a significance level of (0.05) (see *Table 3.5* and *Appendix 4*). Regarding the subjects' performance in the reading comprehension pre-test, it is found out that the computed t-value is (1.٥6) with a (2.00) tabulated t-value. This

indicates that there is no statistically significant difference between the mean scores of the two groups at a significance level of (0.05) (see *Table 3.6* and *Appendix 6*).

Table 3.5

T-test Statistics for the Subjects' Scores in the Collocational Knowledge Pre-test

Group	N	$\overline{x}$	SD	S^2	DF	Computed t. Value	Tabulated t. Value	Level of significance
Experimental	31	15.74	4.09	16.73	60	1.17	2.00	0.05
Control	31	14.64	3.19	10.23				

Table 3.6

T-test Statistics for the Subjects' Scores in the Reading Comprehension Pre-test

Group	N	$\overline{x}$	SD	S^2	DF	Computed t. Value	Tabulated t. Value	Level of significance
Experimental	31	19.29	3.79	14.41	60	1.56	2.00	0.05
Control	31	17.90	3.15	9.95				

3.4 Achievement Tests

Achievement tests are extensively utilized in educational studies, as well as in teaching systems and programs. These tests are employed in measuring

what individuals have learned. They are used to measure mastery and proficiency in a variety of domains of knowledge by subjecting learners to standardized questions including the accomplishment of cognitive tasks. Achievement testing is in direct relation to language courses. The purpose of achievement tests is to indicate "how successful individual students, groups of students, or the courses themselves have been in achieving objectives" (Hughes, 1989: 10). Hence, in order to indicate the degree of success of a particular teaching program, achievement tests are the only option for researchers and teachers when experimental and control groups are set to achieve the same educational aims using different ways of instruction (Harris, 1969: 3).

As there are no ready-made tests to be employed in this study, the researcher has constructed two achievement tests for assessing the learners' collocational knowledge and reading comprehension performance. The major strength of a researcher-made test is that it can be accommodated to be appropriate to the specific research area to be investigated. This way, the researcher can investigate the role of raising awareness of collocation in improving the achievement of the experimental group in collocational knowledge and reading comprehension as compared with the achievement of the control group being instructed in the traditional method.

3.4.1 Construction of the Tests

The researcher used two achievement tests: one for assessing collocational knowledge and the other for assessing reading comprehension. The collocational knowledge test consists of twenty items of multiple choice questions with the testee required to choose the most natural-sounding

collocate out of four options. The collocational knowledge test has been constructed using the *BNC*, in the sense that the test items are extracts from authentic texts. Furthermore, the distractors of the test items have been passed through the corpus to ensure that there is only one collocational option. On the other hand, the reading comprehension test consists of a passage with an 11.13 Flesch-Kincaid Grade Level score, and ten items of short-answer questions incorporating the literal and inferential reading comprehension levels, with most of the items requiring understanding the meaning of certain collocations in the text to be answered. The open ended questions have been used in order to maintain reliability and avoid arbitrary guessing acts, as well as to form questions that require a profound analysis of the reading passage on the part of the subjects.

3.4.2 Validity

Henning (1987: 89) states that "validity in general refers to the appropriateness of a given test or any of its component parts as a measure of what it is purported to measure". A test is considered to be characterized by validity with accordance to the degree that it assesses what it purports to assess. In the construction of any test, two questions must always be taken into consideration: (1) What exactly does the test measure? and (2) How well does the test measure? If the test is considered to be constructed upon a reliable inquiry into the skill or skills needed to be measured, and if there is good evidence that the scores of the test have a high correlation with the actual performance in the skills being assessed, then it is reasonable to assume that the test is valid for our objectives (Harris, 1969: 19). Validity, as a concept incorporated in assessment, could be further explained by noticing the following statements:

1. Validity is concerned with interpreting the results of the test, not the test itself.
2. Validity is not measured, but deduced from accessible information or evidences.
3. Validity is limited to specified uses such as placement, selecting, evaluating learning, and so on).
4. Validity is represented by degree (for instance, low, medium, or high).

The tests were exposed to a jury of recognized authorities in applied linguistics* to be validated. They were asked to see if the test items were appropriate and to add, modify, or change the item they consider as inappropriate. Check Appendix (2) for the description of face validation of the tests.

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*The jury members are:

1. *Prof. Abbas Lutfi Hussein, Ph.D. in Linguistics, College of Arts, Al-Mustansiriyah University.*
2. *Prof. Ala' Hussein Oda, Ph.D. in ELT, College of Education for Humanities, University of Basrah.*
3. *Prof. Nagham Qadoori Yahya, Ph.D. in ELT, College of Education for Humanities, Tikrit University.*
4. *Prof. Abdulkareem Fadhil Jamil, Ph.D. in Linguistics, College of Education for Humanities (Ibn Rushd), Baghdad University.*
5. *Asst. Prof. Liqaa Habeeb Al-Ubaidy, Ph.D. in ELT, College of Education for Humanities, University of Diyala.*
6. *Asst. Prof. Bushra Ni'ma Rashid, Ph.D. in Linguistics, College of Education for Humanities (Ibn Rushd), Baghdad University.*
7. *Asst. Prof. Nadia Majeed Hussein, Ph.D. in ELT, Middle Technical University.*

3.3.3 Pilot Administration

Pilot administrations can be used to check the practicality as well as reliability of the data collection instruments (Riazi, 2016: 239). Hence, pilot administration of the test refers to applying the test material to a sample similar to that for whom the test is being constructed *(*Harris, 1969: 25). In this study, two pilot tests were administered to a sample of 46 second-year students studying English as their major at the *College of Education/ Tikrit University* on the 3rd of November, 2019. These students were not involved in the experimental and control groups.

The pilot tests were administered to determine the time needed by the students to answer the items of each test, to check test instruction clarity and appropriateness, to analyze the items of each test in terms of difficulty level and discrimination power, and to extract the reliability coefficient of the tests.

The pilot administration of the tests indicates that students need thirty minutes to finish the collocation test and fifty minutes to finish the reading comprehension test. This includes five minutes for clarifying the instructions of the tests. Other indications of the pilot tests are detailed in the description of the reliability of the tests and item analysis of the test items.

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8. *Asst. Prof. Baidaa Abbas Ghubin, Ph.D. in Linguistics, College of Education for Humanities (Ibn Rushd), Baghdad University.*
9. *Asst. Prof. Muna Mohammed Abbas, Ph.D. in ELT, College of Basic Education, University of Babylon.*
10. *Asst. Prof. Sabeeha Hamza Dehham, MA in ELT, College of Basic Education, University of Babylon.*
11. *Asst. Prof. Khansaa Hassan Al-Bahadli, Ph.D. in ELT, Imam Al-Kadhim College for Islamic Studies.*

3.4.4 Reliability

Reliability refers to the consistency of test performance that is reflected in the test scores. Clearly, if the stimuli to data collection are not characterized with consistency then, the collected data will not be taken as reliable, rendering it difficult, if not impossible, for the researcher to arrive at reasonable conclusions from the data and analysis. It is therefore crucial to ascertain that the instruments of data collection employed in a particular study are consistent and stable in gathering data from the subjects (Riazi, 2016: 271).

Reliability is calculated using different methods such as the parallel forms, test-retest, Kuder-Richardson formula, split-half method and Alpha Cronbach (Fulcher and Davidson, 2007:106). In this study, the split half method is used to calculate the reliability coefficients of the two tests. The test is divided into two halves based on odd and even-numbered items. A correlation coefficient is then measured for the scores of the two halves. The researcher can then consider the result as a reliability estimation except that it serves as a reliability degree for only one half of the test-either half, but still just half of the test. If all other elements remain constant, a longer test is usually characterized by higher reliability than a short one, and the correlation calculated for the items of the two halves must be tailored so that it can be taken as reliability coefficient for the full test. Adjusting the half-test correlation to estimate the full-test reliability is calculated by using the Spearman-Brown Prophecy formula (Brown, 1996: 194-5). Thus, the reliability coefficients of the collocational knowledge and reading comprehension tests are (0.82) and (0.7٤) respectively.

3.6.5 Item Analysis

The results of item analysis come up with evidence for the extent to which each item in the test is functioning well or not. With accordance to the outcome of the item analysis, researchers can retain, delete, or modify each item in the test. Once the raw data are obtained, then the outcome of the item analysis will be indicated in the research as part of the evidence for the reliability and validity of the test (Riazi, 2016: 271). In this study, it is concerned with three features of item analysis: item facility, item discrimination and distractor efficiency.

3.4.5.1 Item Facility

Item facility (IF) is a quantitative index that is used for examining the percentage of testees who respond to a certain item correctly. The outcome of this index for each item is an item facility value ranging from 0.00 to 1.00 for different items. Researchers view this value as the percentage of correct responses for a given item (by moving the decimal point two places to the right) (Brown, 1996: 65). The test is appropriate if its item facility value is between (0.20 – 0.80) (Bloom, 1971: 66). Regarding the item facility index of the collocational knowledge test, the results show that the IF of the test items ranges from (0.15) to (0.52), as shown in table (7). On the other hand, the result of the reading comprehension test show that its IF ranges between (0.39) and (0.60), as indicated in table (8). Any item that is under (0.20) is changed or modified.

3.5.5.2 Item Discrimination

Item discrimination (ID) reflects the extent to which a test item splits the subjects into two groups: an upper group and a low group. It separates the subjects who performed well from those who performed poorly. The motive for singling out these two groups is that ID allows researchers to compare the achievement of the upper group subjects on the test with that of the lower-group subjects. Regarding the collocational knowledge test, the results show that the ID of the test items ranges from (0.21) to (0.56) (see *Table 3.7*). The results of the reading comprehension test show that its ID ranges between (0.22) and (0.58), as shown in table (3.8).

Table 3.7

IF and ID of the Collocational Knowledge Test

Item No.	*IF*	*ID*	*Item No.*	*IF*	*ID*
1	*0.45*	*0.39*	*11*	*0.36*	*0.30*
2	*0.52*	*0.43*	*12*	*0.41*	*0.39*
3	*0.5*	*0.47*	*13*	*0.28*	*0.30*
4	*0.43*	*0.34*	*14*	*0.45*	*0.47*
5	*0.45*	*0.39*	*15*	*0.32*	*0.39*
6	*0.47*	*0.43*	*16*	*0.34*	*0.26*
7	*0.39*	*0.34*	*17*	*0.15*	*0.21*
8	*0.٣4*	*0.43*	*18*	*0.36*	*0.47*
9	*0.36*	*0.21*	*19*	*0.41*	*0.56*
10	*0.45*	*0.47*	*20*	*0.39*	*0.34*

Table 3.8

IF and ID Discrimination of the Reading Comprehension Test

Item Number	*IF*	*ID*
1	*0.٣٩*	*0.3٧*
2	*0.5٤*	*0.٤١*
3	*0.5٦*	*0.٢٩*
4	*0.4٦*	*0.٢٢*
5	*0.٦٠*	*0.٤٥*
6	*0.4٣*	*0.٢٩*
7	*0.٤٧*	*0.3٧*
8	*0.٥٤*	*0.٢٥*
9	*0.٤٥*	*0.٥٨*
10	*0.٥٧*	*0.٣١*

3.4.5.3 Distractor Efficiency

The principal aim of distractor efficiency analysis is to estimate the degree to which the distractors can attract the subjects who do not recognize the correct answer. In other words, the aim is to inspect the extent to which the distractors are functioning adequately (Brown, 1996: 71). Non-efficient distractors result in poor discrimination of test items, i.e. any non-efficient distractor needs to be changed because its tempting power is not satisfactory (Madsen, 1983:183). In this study, the distractor efficiency analysis indicates

that all the distractors of the collocational knowledge test are efficient and satisfactory (see *Table 3.9*).

Table 3.9

Distractor Efficiency Analysis of the Collocational Knowledge Test

Item No.	*A*	*B*	*C*	*D*
1	*-0.13*	*-0.02*	*----------*	*-0.04*
2	*----------*	*-0.06*	*-0.10*	*-0.04*
3	*-0.08*	*-0.10*	*-0.02*	*----------*
4	*-0.06*	*----------*	*-0.02*	*-0.08*
5	*----------*	*-0.02*	*-0.10*	*-0.06*
6	*-0.08*	*-0.10*	*----------*	*-0.02*
7	*-0.02*	*-0.08*	*-0.06*	*----------*
8	*----------*	*-0.10*	*-0.04*	*-0.06*
9	*-0.06*	*-0.02*	*----------*	*-0.02*
10	*-0.08*	*-0.02*	*----------*	*-0.13*
11	*----------*	*-0.06*	*-0.04*	*-0.04*
12	*----------*	*-0.8*	*-0.15*	*-0.06*
13	*-0.04*	*----------*	*-0.06*	*-0.04*
14	*-0.10*	*-0.08*	*-0.04*	*----------*
15	*-0.04*	*----------*	*-0.13*	*-0.02*
16	*----------*	*-0.08*	*-0.02*	*-0.06*
17	*-0.04*	*-0.02*	*----------*	*-0.02*
18	*-0.4*	*----------*	*-0.10*	*-0.08*
19	*----------*	*-0.8*	*-0.02*	*-0.04*
20	*-0.08*	*-0.02*	*----------*	*-0.06*

3.5 Administration of the Pre-tests

On the 17th of November, 2019, the collocational knowledge pre-test was administered to the experimental and control groups. Taking into consideration that the subjects of the study were with no experience with such a test, the researcher concisely explained to them that there is only one option acceptable to native speakers and it is the most natural-sounding one, although all the options can be framed without malforming the syntactic structure of the items. After the administration of the collocational knowledge test, the subjects of both groups were given the reading comprehension test.

3.6 Instruction and Instructional Material

Instruction was initiated on the 24th of November, 20١٩. Throughout the period of instruction, learners participated in weekly one hour reading comprehension classes. In order for learners to meet the requirements of the course, participation and regular attendance were required. The classes were conducted by the researcher himself. During the eight-week programme, learners were regularly exposed to authentic texts covering different genres with a satisfactory density of collocation. In other words, the instructional material used in the current study involved eight authentic passages appropriate for raising awareness of collocation. These reading passages comprised some adaptations in length as far as possible (check *Appendix 9*).

Regarding the treatment of the control group, the subjects were instructed in the traditional method which focuses on vocabulary as single items. For the experimental group, instruction was preceded by making the learners aware of the importance of collocation as a basic component in

every language, with special reference to English. They were also made aware that they must have a good repertoire of collocations in order for them to reach a native-like level of language mastery. The following types of awareness-raising activities are used in class:

1. Promoting learners' noticing: The essential step in raising awareness of collocations is enabling learners to notice them. During the pre-reading session, the teacher works on some activities that direct the learners' attention to particular word associations in the text. This involves presenting extended expressions and asking for their equivalents which can be found as italicized collocations in two or more words in the text or introducing a key word to be matched with other word(s) for producing a particular meaning. Furthermore, in the form of MCQs, he asks learners to choose the proper word that forms a collocation with the word before or after the blank and the students check their answers when reading the text. Such activities are highly significant as they have the potentiality of putting learners on alert to notice collocations during reading.

2. Classifying collocations: The teacher asks learners to classify the text collocations according to their part of speech.

3. Experiencing corpus-based data: Corpus data in the form of concordance lines, that are authentic representations of frequent collocation patterns, are developed into worksheets. Learners are required to investigate concordance lines to explore and identify collocations. Concordance lines help in reinforcing the notion of collocation in learners' mind as a natural linguistic phenomenon. The teacher also guides students to explore corpora and look for collocations themselves. In this corpus based

activity, the teacher assumes the role of research organizer, and through the use of concordance data, the students can become better language learners outside the classroom.

4. Cross-linguistic exploration: The teacher encourages learners to look for similarities and differences between collocational patternings in their own language and collocational patternings in English. For example, the teacher asks learners if the words in 'the leading causes of death' have similar patterning in Arabic with the same meaning. This activity highly contributes to eliminating collocational interference.

5. Reference training: The teacher guides the learners to use reference works - dictionaries, corpus data and resources specified for learning collocations. The teacher can provide learners with some words from the text and ask them to search dictionaries and linguistic corpora for their collocates, supported by authentic examples.

3.7 Administration of the Post-test

On the 15th of January, 2020, the collocational knowledge post-test was administered to the subjects of the two groups. Then, they were subjected to the reading comprehension post-test. The subjects were seated in a large quiet classroom and informed of the time limit for each test. Furthermore, the instructions of the tests were clearly illustrated. During the test administration, the teacher tried to set out any reasonable condition that might help the testees in demonstrating their real achievement level without giving priority to any testee.

3.8 Scoring

The main goal of administering a language test is to produce scores that can be taken as indicators of the subjects' knowledge or ability to use language for some intended aim. These score-based indications can be advantaged as a source of information for arriving at sensible decisions about the testees within some assessment setting (Bachman & Purpura, 2008: 458). Hence, reasonable scoring schemes are inevitable for carrying out the study.

The collocational knowledge test is scored out of 40. Each item of the test carries two scores since the whole test consists of 20 items. The reading comprehension test is also scored out of 40, but with each item carrying 4 scores. Each test item focuses on one or more pieces of information from the text, and correct responses must imply the semantically related content. However, scoring the test items is based on Bailey and Meurers' annotation scheme for scoring short answers to reading comprehension questions which "distinguishes correct answers, omissions (of relevant concepts), overinclusions (of incorrect concepts), blends (both omissions and overinclusions), and non-answers" (2008: 109). In this context, correct responses might still be diagnosed with syntactic or spelling errors and mistakes; heavy emphasis is placed on the content rather than the form of the learners' answer.

3.9 Results

In order to verify or reject the hypotheses of the study, the t-test formula for two unpaired samples has been used for determining whether there are statistically significant differences between the mean scores of the

experimental and control groups in the collocational knowledge and reading comprehension post-tests.

3.9.1 Result of the first Hypothesis

The mean scores of the two groups in the collocational knowledge post-test are greater than the mean scores of the pre-test which are statistically insignificant. However, in order to determine whether there is a statistically significant difference between the two mean scores of the experimental and control groups in the collocational knowledge post-test, t-test formula for two unpaired samples has been used. The mean score of the experimental group is (22.19) and that of the control group is (17.29). This is an indication that the experimental group outperformed the control group in the collocational knowledge post-test. The calculated t-value (4.28) is greater than the tabulated value (2.00) which means that the difference between the two mean scores is statistically significant (see *Table 3.10 & Figure 3.1*). Hence, the effect of raising awareness of collocation is positive and the null hypothesis, which states that teaching vocabulary as collocations via awareness-raising activities does not produce an effect for the development of Iraqi EFL learners' collocational knowledge, is rejected.

Table 3.10

T-test Statistics for the Subjects' Scores in the Collocational Knowledge Post-test as Compared with the Pre-test Statistics

Group	Test	N	$\overline{x}$	SD	S^2	DF	Computed t. Value	Tabulated t. Value	Level of significance
Experimental	Post-	31	22.19	5.27	27.82	60	4.28	2.00	0.05
Control		31	17.29	3.56	12.67				
Experimental	Pre-	31	15.74	4.09	16.73		1.17		
Control		31	14.64	3.19	10.23				

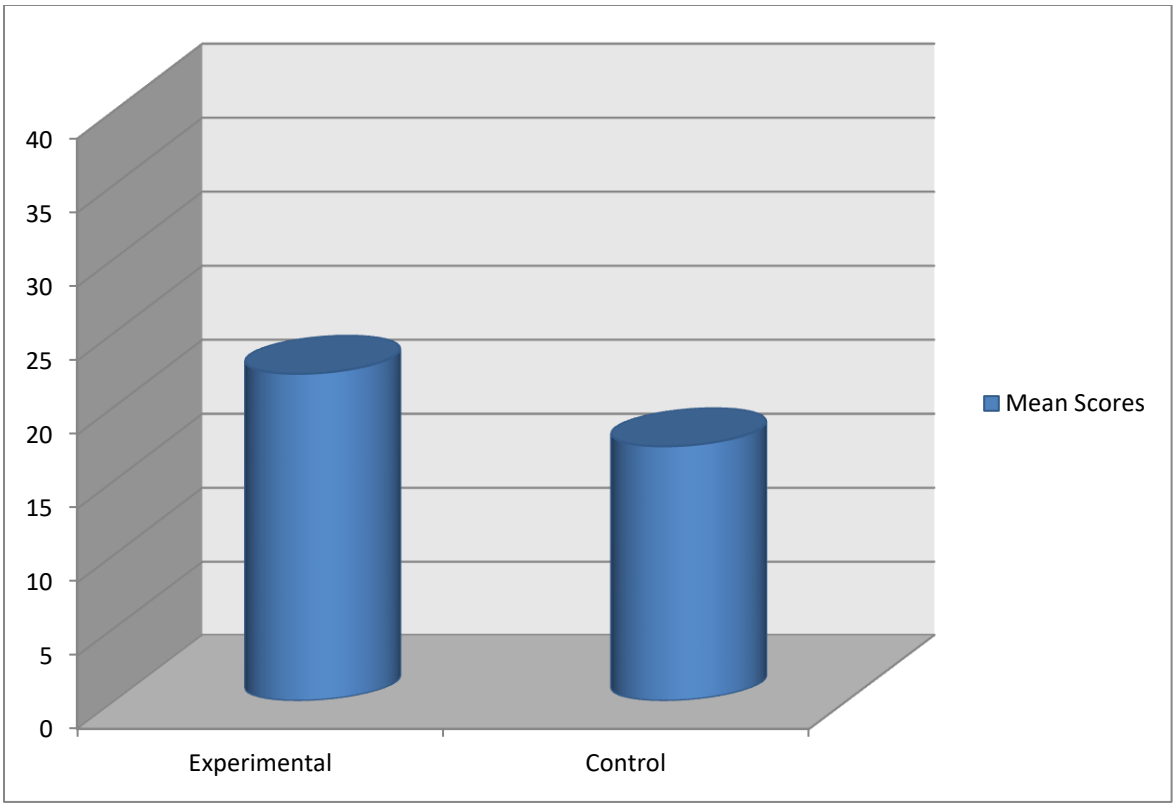

Figure 3.1: The Mean scores of the Subjects in the Collocational Knowledge Post-test

4.2.2 Result of the Second Hypothesis

The mean scores of the two groups in the reading comprehension post-test are greater than the mean scores of the pre-test which are statistically insignificant. However, in order to determine whether there is a statistically significant difference between the two mean scores of the experimental and control groups in the reading comprehension post-test, t-test formula for two unpaired samples has been used. The mean score of the experimental group is (27.77) and that of the control group is (21.87). This is an indication that the experimental group outperformed the control group in the reading

comprehension post-test. The calculated t-value (4.90) is greater than the tabulated value (2.00) which means that the difference between the two mean scores is statistically significant (see *Table 3.11 & Figure 3.٢*). Hence, the effect of raising awareness of collocation is positive and the null hypothesis, which states that teaching vocabulary as collocations via awareness-raising activities does not produce an effect for the development of Iraqi EFL learners' reading comprehension, is rejected.

Table 3.11

T-test Statistics for the Subjects' Scores in the Reading Comprehension Post-test as Compared with the Pre-test Statistics

Group	Test	N	$\overline{x}$	SD	S^2	DF	Computed t. Value	Tabulated t. Value	Level of significance
Experimental	Post-	31	27.77	5.34	28.58	60	4.90	2.00	0.05
Control		31	21.87	4.03	16.31				
Experimental	Pre-	31	19.79	3.79	14.41		1.56		
Control		31	17.90	3.15	9.95				

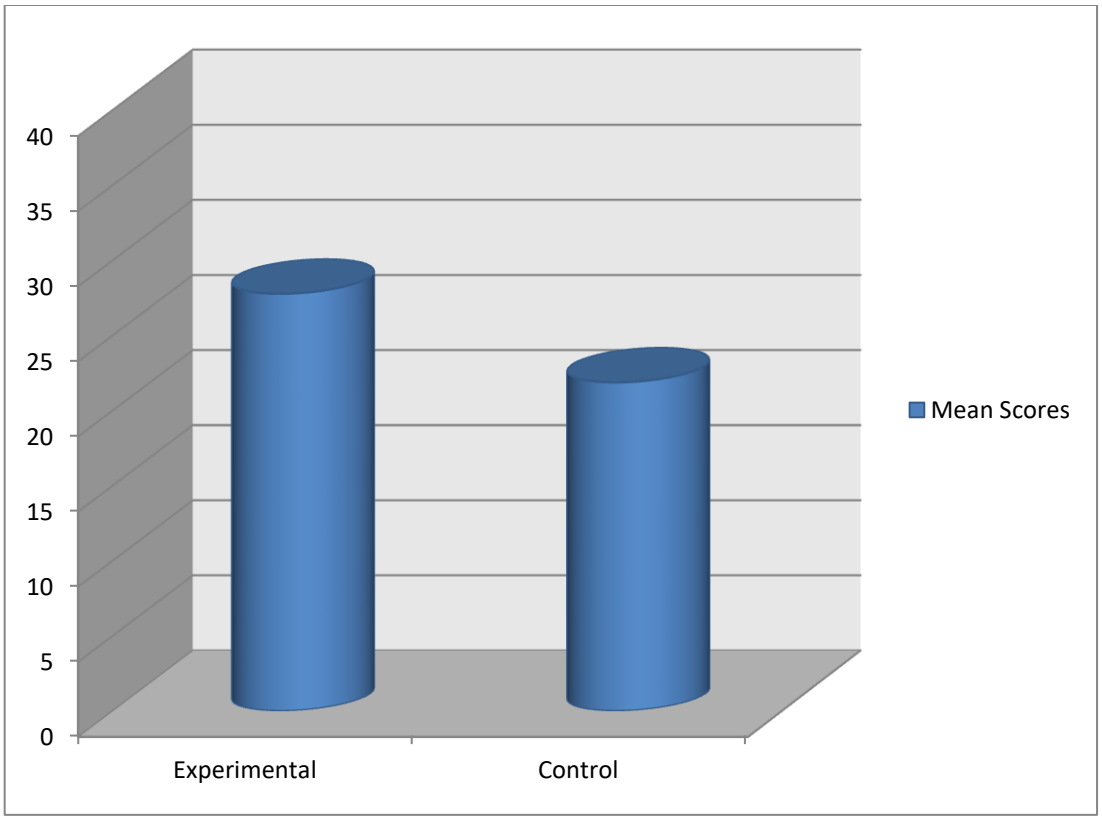

Figure 3.2: The Mean scores of the Subjects in the Reading Comprehension Post-test

3.11 Discussion of the Results

The results of the study have shown in statistics that developing collocational knowledge via awareness-raising activities has a significant role in enhancing Iraqi EFL learners' reading comprehension. This is up to the potentiality of the creation of associative bonds between lexical items in the mental lexicon of EFL learners.

The result of the collocational knowledge post-test shows that there is a statistically significant difference between the mean scores of the two groups in favour of the experimental group. Despite of the short period of instruction, the experimental group outperformed the control group. This

development in the performance of the experimental group is due to the independent variable, which is teaching vocabulary as collocations via awareness-raising activities. An explanation for this difference in performance between the two groups is that EFL learners cannot develop a satisfactory level of collocational knowledge without explicit instruction and being aware of the associative bonds linking the lexical items of the target language. This is up to the high sensitivity of collocation and its arbitrary nature which make collocations require attention and focus to be noticed and memorized as wholes by EFL learners. As a consequence, raising awareness of collocation is a necessary step towards organizing the mental lexicon of EFL learners through developing their collocational knowledge. Hence, increasing Iraqi EFL learners' collocational knowledge via awareness-raising activities is compatible with the findings of Koç's (2006), Balcı & Çakır's (2012), Lin's (2015) and Daskalovska's (2015) studies.

On the other hand, the result of the reading comprehension post-test shows that there is a statistically significant difference between the mean scores of the two groups in favour of the experimental group. This development in the performance of the experimental group is due to the independent variable, which is teaching vocabulary as collocations via awareness-raising activities. This is an empirical validation that L2 reading comprehension can be developed via increasing collocational knowledge. An explanation for this difference in performance between the two groups is that creating collocational links in the L2 mental lexicon supports vocabulary retention and understanding of the semantic scope of lexical items. This means that EFL learners equipped with a satisfactory collocational knowledge have better vocabulary knowledge than those who

lack such knowledge. Moreover, the associative power of collocation can ignite the prediction of the co-occurring lexical items to some extent. Besides, collocation leads to fluent processing of comprehension and relieving EFL learners of paying attention to each individual lexical item, and enables them to attend to the macro-discourse structure, sparing them some of the processing effort required for comprehending written text. This explanation draws most of its support from a plethora of studies such as Khou's (2008) and Balcı & Çakır's (2012) studies. However, enhancing Iraqi EFL learners' reading comprehension through increasing their collocational knowledge has a kind of compatibility with the findings of Khou's (2008) study which revealed a moderate relationship between FSs, including collocation, and reading comprehension.

Chapter Four

Conclusions,

Recommendations and Suggestions

٤.1 Introduction

On the basis of the results of the experiment stated in the previous chapter, the study eventuates with certain conclusions. As a consequence to these conclusions, some detailed recommendations are put forward, followed by suggestions for further academic investigations.

4.2 Conclusions

In the light of the findings of the experiment that are based on statistical evidence, the researcher comes up with the following conclusions:

1. Raising awareness of collocation via promoting learners' noticing, classifying collocations according to their part of speech, experiencing corpus data, cross-linguistic exploration, and training learners to use references, is an effective strategy for increasing Iraqi EFL learners' collocational knowledge.
2. Iraqi EFL learners cannot acquire a good repertoire of English collocation without explicit instruction and rendering them aware of the specific nature of the syntagmatic relations of English vocabularies.
3. Teaching vocabulary as collocations and increasing collocational knowledge play a central role in enhancing Iraqi EFL learners' reading comprehension.

4. Lacking a good repertoire of collocations is a serious obstacle that is responsible for causing difficulties in Iraqi EFL learners' reading comprehension.

4.3 Recommendations

In accordance with the findings and conclusions of the current study, a detailed set of recommendations is put forward:

1. EFL teachers should be aware of the pervasiveness of English collocation and its significant contribution to acquiring vocabulary and accurate, natural English.
2. In teaching English vocabulary, teachers should lead learners to pay meticulous attention to the syntagmatic relations held among words.
3. Teaching new vocabulary should be supported with providing some necessary collocations and authentic contexts, not introduced as single items involved in inaccurate invented sentences.
4. Training and guiding EFL learners to use language corpora should be a high priority for enhancing language proficiency as corpora are major sources for authentic language.
5. Raising awareness of collocations should be incorporated in reading comprehension classes as it is an effective strategy for accelerating reading comprehension processing, and enhancing retention and semantic representation of English vocabulary.

4.4 Suggestions

In the light of the findings of this study, the researcher comes up with some practical suggestions for further academic studies:

1. Similar studies that explore the role of developing collocational knowledge in enhancing Iraqi EFL learners' listening, speaking and writing skills.
2. A study that investigates the correlation between lexical density or diversity and collocational knowledge.
3. A similar study that investigates the effectiveness of teaching collocations in improving Iraqi EFL learners' fluency.
4. A study that explores the relationship between collocational knowledge and Iraqi EFL learners' motivation to learning English.
5. A study that investigates the factors contributing to increasing collocational interference from Arabic into English among Iraqi EFL learners.
6. An investigation of the role of corpus-based instruction in developing Iraqi EFL learners' breadth and depth of vocabulary knowledge.

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Appendices

Appendix (1)

Tests with a Letter to the Jury Members

University of Misan

College of Education

Department of English (Graduate Studies)

MA Programme

Dear Sir/Madam:

The researcher intends to carry out an experimental study that is entitled as ***"The Role of Raising Awareness of Collocation in Improving Iraqi EFL Learners' Reading Comprehension at the University Level"***. To achieve the aims of this experimental study, the researcher has constructed two tests: a collocational knowledge test consisting of twenty items and a reading comprehension test that consists of ten items. The participants of the study are second year students majoring in English at the *College of Education*/ *Tikrit University*. As a specialist in *Applied linguistics*, it would be highly appreciated if you could read the items of the tests and pronounce your judgement about their suitability, validity and clarity for the testees. Any additions, modifications and suggestions will be deeply appreciated.

Thank you for your cooperation.

Mohammed Ahmed Karam

Fatima Raheem Abdulhussein, Ph.D.

Collocational Knowledge Test

Choose the most-natural sounding option.

1. Kate is quite a shy person and finds it hard to ……. friends.
    a. get
    b. have
    c. make
    d. gain
2. At a funeral people …….. their last respect to the person who has died.
    a. pay
    b. submit
    c. introduce
    d. state
3. Cancer is one of the …… causes of death in the world.
    a. magnificent
    b. important
    c. significant
    d. leading

4. The socialist party …….. control of the National Assembly.
    a. earned
    b. gained
    c. achieved
    d. won
5. Road conditions are difficult because of the ……..rain.
    a. Heavy
    b. thick
    c. Strong
    d. Hard
6. I am sure we can …… our differences without damaging our friendship.
    a. rid
    b. solve
    c. settle
    d. finish
7. The flash sent the mice ……. away.
    a. walking
    b. stepping

c. heading

d. scampering

8. The jury are expected to take several days to …… a verdict.

a. reach

b. carry out

c. introduce

d. give

9. The government is trying to boost the …… economy by converting the defence industry to civilian production.

a. falling

b. withering

c. ailing

d. fading

10. Genetic ……..…… is already used to change fruit and vegetables so that they grow better.

a. alteration

b. adaptation

c. modification

d. re-organization

11. There is a strong …….of order and control.

a. sense

b. hint

c. signal

d. indication

12. The 26-year-old is guarded about his physical and ……fatigue.

a. mental

b. thoughtful

c. psychological

d. spiritual

13. Protests are being ……by farmers and environmentalists in India and the UK to highlight the threat to native plants.

a. prepared

b. staged

c. arranged

d. constructed

14. When she was a small child, Amelia's teachers identified her as having unusual intelligence and remarkable mental agility, and they put her on a special programme for ……..children.

a. smart

b. brilliant

c. talented

d. Gifted

15. The pavements will be narrowed to make …….for six lanes of traffic.

a. size

b. room

c. place

d. area

16. He said he was leaving me because he was sick of my ……..nagging.

a. constant

b. continuous

c. ongoing

d. repeated

17. Are you having second ……about coming to Brighton with me?

a. considerations

b. ideas

c. thoughts

d. notions

18. A volcanic ……..occurs when hot materials from the Earth's interior are thrown out of a volcano.

a. blast

b. eruption

c. explosion

d. outbreak

19. We are …… an experiment to test how the metal reacts with water.

a. doing

b. making

c. having

d. performing

20. I can hardly believe that anyone should behave so cruelly and insensitively to any woman …… a baby.

a. bearing

b. hoping

c. expecting

d. waiting

Reading Comprehension Test

Read the following passage carefully.

There are now over 700 million motor vehicles in the world - and the number is rising by more than 40 million each year. The average distance driven by car users is growing too - from 8 km a day per person in Western Europe in 1965 to 25 km a day in 1995. This dependence on motor vehicles has given rise to major problems, including environmental pollution, depletion of oil resources, traffic congestion and safety.

While emissions from new cars are far less harmful than they used to be, city streets and motorways are becoming more crowded than ever, often with older trucks, buses and taxis, which emit excessive levels of smoke and fumes. This concentration of vehicles makes air quality in urban areas unpleasant and sometimes dangerous to breathe. Even Moscow has joined the list of capitals afflicted by congestion and traffic fumes. In Mexico City, vehicle pollution is a major health hazard.

Until a hundred years ago, most journeys were in the 20 km range, the distance conveniently accessible by horse. Heavy freight could only be carried by water or rail. The invention of the motor vehicle brought personal mobility to the masses and made rapid freight delivery possible over a much wider area. Today about 90 percent of inland freight in the United Kingdom is carried by road. Clearly, the world cannot revert to the horse-drawn wagon. Can it avoid being locked into congested and polluting ways of transporting people and goods?

In Europe, most cities are still designed for the old modes of transport. Adaptation to the motor car has involved adding ring roads, one-way systems and parking lots. In the United States, more land is assigned to car use than to housing. Urban sprawl means that life without a car is next to impossible. Mass use of motor vehicles has also killed or injured millions of people. Other social effects have been blamed on the car such as alienation and aggressive human behaviour.

Technical solutions can reduce the pollution problem and increase the fuel efficiency of engines. But fuel consumption and exhaust emissions depend on which cars are preferred by customers and how they are driven. Many people buy larger cars than they need for daily purposes or waste fuel by driving aggressively. Besides, global car use is increasing at a faster rate than the improvement in emissions and fuel efficiency which technology is now making possible.

One solution that has been put forward is the long-term solution of designing cities and neighbourhoods so that car journeys are not necessary - all essential services being located within walking distance or easily accessible by public transport. Not only would this save energy and cut carbon dioxide emissions, it would also enhance the quality of community life, putting the emphasis on people instead of cars. Good local government is already bringing this about in some places. But few democratic communities are blessed with the vision - and the capital - to make such profound changes in modern lifestyles.

A more likely scenario seems to be a combination of mass transit systems for travel into and around cities, with small 'low emission' cars for urban use

and larger hybrid or lean burn cars for use elsewhere. Electronically tolled highways might be used to ensure that drivers pay charges geared to actual road use. Better integration of transport systems is also highly desirable - and made more feasible by modern computers. But these are solutions for countries which can afford them. In most developing countries, old cars and old technologies continue to predominate.

Answer the following questions.

1. How did motor vehicles make a contribution to trading?
2. What are the advantages of the long-term solution of designing cities and neighborhoods?
3. What are the significant disadvantages of high dependence on motor vehicles?
4. How could many European cities with old designs be made fit to car transportation?
5. How does the high use of motor vehicles lead to oil problems?
6. Why are modern transport solutions not applicable to developing countries?
7. What is meant by "*electronically tolled highways*" and "*health hazard*"?
8. Why are emissions from new vehicles less harmful than they used to be?
9. In the passage, it can be inferred that urban sprawl makes car use a necessity, what does "*urban sprawl*" mean?
10. Is there a correspondence between introducing technical solutions to environmental pollution and the fuel efficiency of engines? Why?

Appendix (2)

The Face Validity of the Tests

Face Validity of the Collocational Knowledge Test

Items	Agreements	Rejections	Modifications
1, 3, 6, 7, 10, 11, 14, 15, 18, 19	*11*	*0*	*0*
2, 5, 9	*9*	*0*	*2*
16	*4*	*7*	*0*
4	*5*	*0*	*6*
12, 13, 20	*8*	*0*	*3*
8, 17	*10*	*0*	*1*

The Face Validity of the Reading Comprehension Test

Items	Agreements	Rejections	Modifications
1, 3, 5, 6, 8, 9, 10	*11*	*0*	*0*
2	*3*	*5*	*3*
4	*5*	*0*	*6*
7	*3*	*0*	*8*

Appendix (3)

Subjects' Age Measured in Months

Experimental Group				*Control Group*			
No.	*Age*	*No.*	*Age*	*No.*	*Age*	*No.*	*Age*
1	*240*	*17*	*233*	*1*	*239*	*17*	*247*
2	*252*	*18*	*239*	*2*	*234*	*18*	*232*
3	*237*	*19*	*249*	*3*	*237*	*19*	*236*
4	*252*	*20*	*239*	*4*	*241*	*20*	*235*
5	*238*	*21*	*244*	*5*	*242*	*21*	*239*
6	*240*	*22*	*234*	*6*	*228*	*22*	*256*
7	*237*	*23*	*229*	*7*	*246*	*23*	*237*
8	*248*	*24*	*256*	*8*	*235*	*24*	*230*
9	*237*	*25*	*233*	*9*	*231*	*25*	*234*
10	*257*	*26*	*237*	*10*	*252*	*26*	*233*
11	*225*	*27*	*232*	*11*	*232*	*27*	*246*
12	*244*	*28*	*239*	*12*	*228*	*28*	*241*
13	*230*	*29*	*232*	*13*	*232*	*29*	*244*
14	*231*	*30*	*246*	*14*	*234*	*30*	*254*
15	*264*	*31*	*258*	*15*	*233*	*31*	*247*
16	*239*			*16*	*254*		

Appendix (4)

Scores of the Subjects in the Collocational Knowledge Pre-Test

Experimental Group				*Control Group*			
No.	*Score*	*No.*	*Score*	*No.*	*Score*	*No.*	*Score*
1	*18*	*17*	*22*	*1*	*12*	*17*	*12*
2	*16*	*18*	*20*	*2*	*18*	*18*	*20*
3	*14*	*19*	*14*	*3*	*14*	*19*	*18*
4	*14*	*20*	*10*	*4*	*10*	*20*	*12*
5	*10*	*21*	*22*	*5*	*16*	*21*	*16*
6	*16*	*22*	*20*	*6*	*20*	*22*	*14*
7	*20*	*23*	*12*	*7*	*14*	*23*	*20*
8	*18*	*24*	*8*	*8*	*12*	*24*	*10*
9	*16*	*25*	*8*	*9*	*14*	*25*	*16*
10	*14*	*26*	*16*	*10*	*16*	*26*	*14*
11	*12*	*27*	*20*	*11*	*18*	*27*	*10*
12	*22*	*28*	*20*	*12*	*12*	*28*	*16*
13	*16*	*29*	*10*	*13*	*16*	*29*	*18*
14	*16*	*30*	*14*	*14*	*8*	*30*	*14*
15	*14*	*31*	*16*	*15*	*14*	*31*	*12*
16	*20*			*16*	*18*		

Appendix (5)

Scores of the Subjects in the Collocational Knowledge Post-Test

Experimental Group				*Control Group*			
No.	*Score*	*No.*	*Score*	*No.*	*Score*	*No.*	*Score*
1	*26*	*17*	*30*	*1*	*14*	*17*	*14*
2	*24*	*18*	*28*	*2*	*18*	*18*	*24*
3	*18*	*19*	*18*	*3*	*10*	*19*	*20*
4	*20*	*20*	*18*	*4*	*16*	*20*	*16*
5	*16*	*21*	*32*	*5*	*22*	*21*	*20*
6	*18*	*22*	*26*	*6*	*22*	*22*	*18*
7	*28*	*23*	*18*	*7*	*20*	*23*	*16*
8	*24*	*24*	*16*	*8*	*16*	*24*	*16*
9	*22*	*25*	*12*	*9*	*18*	*25*	*18*
10	*20*	*26*	*20*	*10*	*16*	*26*	*22*
11	*16*	*27*	*28*	*11*	*14*	*27*	*12*
12	*32*	*28*	*26*	*12*	*16*	*28*	*20*
13	*20*	*29*	*16*	*13*	*20*	*29*	*22*
14	*26*	*30*	*22*	*14*	*10*	*30*	*14*
15	*22*	*31*	*18*	*15*	*18*	*31*	*14*
16	*28*			*16*	*20*		

Appendix (6)

Scores of the Subjects in the Reading Comprehension Pre-Test

Experimental Group				*Control Group*			
No.	*Score*	*No.*	*Score*	*No.*	*Score*	*No.*	*Score*
1	*17*	*17*	*22*	*1*	*18*	*17*	*16*
2	*18*	*18*	*30*	*2*	*22*	*18*	*18*
3	*22*	*19*	*18*	*3*	*18*	*19*	*22*
4	*18*	*20*	*16*	*4*	*16*	*20*	*15*
5	*20*	*21*	*26*	*5*	*26*	*21*	*18*
6	*17*	*22*	*18*	*6*	*16*	*22*	*20*
7	*22*	*23*	*14*	*7*	*15*	*23*	*14*
8	*20*	*24*	*16*	*8*	*20*	*24*	*12*
9	*18*	*25*	*12*	*9*	*18*	*25*	*18*
10	*18*	*26*	*16*	*10*	*22*	*26*	*21*
11	*20*	*27*	*22*	*11*	*16*	*27*	*16*
12	*18*	*28*	*22*	*12*	*14*	*28*	*16*
13	*28*	*29*	*15*	*13*	*18*	*29*	*22*
14	*19*	*30*	*18*	*14*	*14*	*30*	*20*
15	*20*	*31*	*20*	*15*	*16*	*31*	*16*
16	*18*			*16*	*22*		

Appendix (7)

Scores of the Subjects in the Reading Comprehension Post-Test

Experimental Group				*Control Group*			
No.	*Score*	*No.*	*Score*	*No.*	*Score*	*No.*	*Score*
1	*26*	*17*	*28*	*1*	*22*	*17*	*22*
2	*28*	*18*	*34*	*2*	*24*	*18*	*24*
3	*34*	*19*	*27*	*3*	*20*	*19*	*20*
4	*22*	*20*	*24*	*4*	*21*	*20*	*18*
5	*24*	*21*	*30*	*5*	*30*	*21*	*22*
6	*28*	*22*	*28*	*6*	*18*	*22*	*28*
7	*30*	*23*	*22*	*7*	*18*	*23*	*18*
8	*32*	*24*	*18*	*8*	*24*	*24*	*16*
9	*28*	*25*	*16*	*9*	*22*	*25*	*20*
10	*26*	*26*	*24*	*10*	*24*	*26*	*19*
11	*25*	*27*	*36*	*11*	*18*	*27*	*20*
12	*36*	*28*	*33*	*12*	*20*	*28*	*18*
13	*32*	*29*	*18*	*13*	*24*	*29*	*28*
14	*34*	*30*	*26*	*14*	*16*	*30*	*32*
15	*36*	*31*	*30*	*15*	*22*	*31*	*22*
16	*26*			*16*	*28*		

Appendix (8)

Statistical Formulas Used in the Study

1. T-test formula for unpaired samples

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{(n_1 - 1)\, S_1^2 + (n_2 - 1) S_2^2}{n_1 + n_2 - 2}\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where:

$\bar{x}_1$= the mean of the first group

$\bar{x}_2$= the mean of the second group

n_1= the size of the first group

n_2= the size of the second group

S_1^2= the variance of the first group

S_2^2= the variance of the second group

(Best & Khan, 2014: 362)

2. Chi square formula

$$x_c^2 = \sum \frac{(f_O - f_E)^2}{f_E}$$

Where:

Σ= the sum of

f_O= observed frequencies

f_E= expected frequencies

(Ibid: 363)

3. The statistical formula of item facility analysis (for MCQs)

$$IF=\frac{N_{correct}}{N_{total}}$$

Where:

$N_{correct}$ = the number of students answering correctly

N_{total} = the number of students taking the test

(Brown, 1996: 66)

4. The statistical formula of item discrimination (for MCQs)

$$ID = \frac{Correct\ U - Correct\ L}{N}$$

Where:

U = upper half

L = lower half

n = the number of the subjects taking the test in one group

(Heaton, 1988: 180)

5. The statistical formula of item facility analysis (for OEQs)

$$\text{IF} = \frac{\text{mean score of the item}}{\text{maximum possible score}}$$

(Wright, 2008: 230)

6. The statistical formula of item discrimination (for OEQs)

$$\text{ID} = \frac{\bar{X}_U - \bar{X}_L}{\text{Range}}$$

Where:

$\bar{\bar{X}}_U$ = the mean score of the upper group

$\bar{X}_L$ = the mean score of the lower group

$Range =$ the best score – the lowest score

(Ibid: 233)

7. Pearson Correlation Coefficient:

$$\text{r} = \frac{\text{n}\sum \text{xy} - (\sum \text{x})\,(\sum \text{y})}{\sqrt{[\text{n}\ \sum \text{x}^2 - (\sum \text{x})^2\ ]\ [\text{n}\sum \text{y}^2 - (\sum \text{y})^2]}}$$

Where:

r = correlation coefficient

n = the size of the sample

$\sum$ xy = the sum of the products of x and y scores for each subject

$\sum$ y = the sum of y scores (even-numbered items)

$\sum x$ = the sum of x scores (odd-numbered items)

(Ebel & Frisbie, 1991: 72)

8. Spearman-Brown Coefficient:

$$\text{Spearman-Brown Coefficient} = \frac{n \times r}{(n-1)r+1}$$

Where:

r = the correlation between the two halves

n = number of times the test length to be increased

(Brown, 1996: 195)

Appendix (٩)

Reading Passages

(1) Gifted Children and Learning

Internationally, ‘giftedness’ is most frequently determined by a score on a general intelligence test, known as an IQ test, which is above a chosen cutoff point, usually at around the top 2-5%. Children’s educational environment contributes to the IQ score and the way intelligence is used. For example, a very close positive relationship was found when children’s IQ scores were compared with their home educational provision (Freeman, 2010). The higher the children’s IQ scores, especially over IQ 130, the better the quality of their educational backup, measured in terms of reported verbal interactions with parents, number of books and activities in their home etc. Because IQ tests are decidedly influenced by what the child has learned, they are to some extent measures of current achievement based on age-norms; that is, how well the children have learned to manipulate their knowledge and know-how within the terms of the test. The vocabulary aspect, for example, is dependent on having heard those words. But IQ tests can neither identify the processes of learning and thinking nor predict creativity.

Excellence does not emerge without appropriate help. To reach an exceptionally high standard in any area very able children need the means to learn, which includes material to work with and focused challenging tuition - and the encouragement to follow their dream. There appears to be a qualitative difference in the way the intellectually highly able think, compared with more average-ability or older pupils, for whom external

regulation by the teacher often compensates for lack of internal regulation. To be at their most effective in their self-regulation, all children can be helped to identify their own ways of learning – metacognition – which will include strategies of planning, monitoring, evaluation, and choice of what to learn. Emotional awareness is also part of metacognition, so children should be helped to be aware of their feelings around the area to be learned, feelings of curiosity or confidence, for example.

High achievers have been found to use self-regulatory learning strategies more often and more effectively than lower achievers, and are better able to transfer these strategies to deal with unfamiliar tasks. This happens to such a high degree in some children that they appear to be demonstrating talent in particular areas. Overviewing research on the thinking process of highly able children, (Shore and Kanevsky, 1993) put the instructor's problem succinctly: 'If they [the gifted] merely think more quickly, then .we need only teach more quickly. If they merely make fewer errors, then we can shorten the practice'. But of course, this is not entirely the case; adjustments have to be made in methods of learning and teaching, to take account of the many ways individuals think.

Yet in order to learn by themselves, the gifted do need some support from their teachers. Conversely, teachers who have a tendency to 'overdirect' can diminish their gifted pupils' learning autonomy. Although 'spoon-feeding' can produce extremely high examination results, these are not always followed by equally impressive life successes. Too much dependence on the teachers risks loss of autonomy and motivation to discover. However, when teachers o pupils to reflect on their own learning and thinking activities, they increase their pupils' self-regulation. For a young child, it may be just the

simple question ‘What have you learned today?’ which helps them to recognise what they are doing. Given that a fundamental goal of education is to transfer the control of learning from teachers to pupils, improving pupils’ learning to learn techniques should be a major outcome of the school experience, especially for the highly competent. There are quite a number of new methods which can help, such as child- initiated learning, ability-peer tutoring, etc. Such practices have been found to be particularly useful for bright children from deprived areas.

But scientific progress is not all theoretical, knowledge is a so vital to outstanding performance: individuals who know a great deal about a specific domain will achieve at a higher level than those who do not (Elshout, 1995). Research with creative scientists by Simonton (1988) brought him to the conclusion that above a certain high level, characteristics such as independence seemed to contribute more to reaching the highest levels of expertise than intellectual skills, due to the great demands of effort and time needed for learning and practice. Creativity in all forms can be seen as expertise se mixed with a high level of motivation (Weisberg, 1993).

(Cambridge ESOL, 2015: 45-46)

(2) Reducing the Effects of Climate Change

Such is our dependence on fossil fuels, and such is the volume of carbon dioxide already released into the atmosphere, that many experts agree that significant global warming is now inevitable. They believe that the best we can do is keep it at a reasonable level, and at present the only serious option for doing this is cutting back on our carbon emissions. But while a few countries are making major strides in this regard, the majority is having great

difficulty even stemming the rate of increase, let alone reversing it. Consequently, an increasing number of scientists are beginning to explore the alternative of geo-engineering — a term which generally refers to the intentional large-scale manipulation of the environment. According to its proponents, geo-engineering is the equivalent of a backup generator: if Plan A - reducing our dependency on fossil fuels - fails, we require a Plan B, employing grand schemes to slow down or reverse the process of global warming.

The majority of geo-engineering projects so far carried out — which include planting forests in deserts and depositing iron in the ocean to stimulate the growth of algae - have focused on achieving a general cooling of the Earth. But some look specifically at reversing the melting at the poles, particularly the Arctic. The reasoning is that if you replenish the ice sheets and frozen waters of the high latitudes, more light will be reflected back into space, so reducing the warming of the oceans and atmosphere.

The concept of releasing aerosol sprays into the stratosphere above the Arctic has been proposed by several scientists. This would involve using sulphur or hydrogen sulphide aerosols so that sulphur dioxide would form clouds, which would, in turn, lead to a global dimming. The idea is modelled on historic volcanic explosions, such as that of Mount Pinatubo in the Philippines in 1991, which led to a short-term cooling of global temperatures by 0.5 °C. Scientists have also scrutinised whether it's possible to preserve the ice sheets of Greenland with reinforced high-tension cables, preventing icebergs from moving into the sea. Meanwhile in the Russian Arctic, geo-engineering plans include the planting of millions of birch trees. Whereas the regions native evergreen pines shade the snow an absorb radiation,

birches would shed their leaves in winter, thus enabling radiation to be reflected by the snow. Re-routing Russian rivers to increase cold water flow to ice-forming areas could also be used to slow down warming, say some climate scientists.

The main reason why geo-engineering is supported by many in the scientific community is that most researchers have little faith in the ability of politicians to agree - and then bring in — the necessary carbon cuts. Even leading conservation organisations see the value of investigating the potential of geo-engineering. According to Dr Martin Sommerkorn, climate change advisor for the World Wildlife Fund's International Arctic Programme, 'Human-induced climate change has brought humanity to a position where we shouldn't exclude thinking thoroughly about this topic and its possibilities.'

(Cambridge ESOL, 2016: 25-26)

(3) Great Migrations

Animal migration, however it is defined, is far more than just the movement of animals. It can loosely be described as travel that takes place at regular intervals - often in an annual cycle - that may involve many members of a species, and is rewarded only after a long journey. It suggests inherited instinct. The biologist Hugh Dingle has identified five characteristics that apply, in varying degrees and combinations, to all migrations. They are prolonged movements that carry animals outside familiar habitats; they tend to be linear, not zigzaggy; they involve special behaviours concerning preparation (such as overfeeding) and arrival; they demand special allocations of energy. And one more: migrating animals maintain an intense

attentiveness to the greater mission, which keeps them undistracted by temptations and undeterred by challenges that would turn other animals aside.

An arctic tern, on its 20,000 km flight from the extreme south of South America to the Arctic circle, will take no notice of a nice smelly herring offered from a bird-watcher's boat along the way. While local gulls will dive voraciously for such handouts, the tern flies on. Why? The arctic tern resists distraction because it is driven at that moment by an instinctive sense of something we humans find admirable: larger purpose. In other words, it is determined to reach its destination. The bird senses that it can eat, rest and mate later. Right now it is totally focused on the journey; its undivided intent is arrival.

But migration is a complex issue, and biologists define it differently, depending in part on what sorts of animals they study. Joe! Berger, of the University of Montana, who works on the American pronghorn and other large terrestrial mammals, prefers what he calls a simple, practical definition suited to his beasts: 'movements from a seasonal home area away to another home area and back again'. Generally the reason for such seasonal back-and-forth movement is to seek resources that aren't available within a single area year-round.

Human behaviour, however, is having a detrimental impact on animal migration. The pronghorn, which resembles an antelope, though they are unrelated, is the fastest land mammal of the New World. One population, which spends the summer in the mountainous Grand Teton National Park of the western USA, follows a narrow route from its summer range in the

mountains, across a river, and down onto the plains. Here they wait out the frozen months, feeding mainly on sagebrush blown clear of snow. These pronghorn are notable for the invariance of their migration route and the severity of its constriction at three bottlenecks. If they can't pass through each of the three during their spring migration, they can't reach their bounty of summer grazing; if they can't pass through again in autumn, escaping south onto those windblown plains, they are likely to die trying to overwinter in the deep snow. Pronghorn, dependent on distance vision and speed to keep safe from predators, traverse high, open shoulders of land, where they can see and run. At one of the bottlenecks, forested hills rise to form a V, leaving a corridor of open ground only about 150 metres wide, filled with private homes. Increasing development is leading toward a crisis for the pronghorn, threatening to choke off their passageway.

Conservation scientists are now working to preserve migrational behaviours, not just species and habitats. A National Forest has recognised the path of the pronghorn, much of which passes across its land, as a protected migration corridor. But neither the Forest Service nor the Park Service can control what happens on private land at a bottleneck. And with certain other migrating species, the challenge is complicated further - by vastly greater distances traversed, more jurisdictions, more borders, more dangers along the way.

(Ibid: 69-70)

(4) Alternative Medicine in Australia

Australia has been unusual in the Western world in having a very conservative attitude to natural or alternative therapies, according to Dr Paul

Laver, a lecturer in Public Health at the University of Sydney. ‘We’ve had a tradition of doctors being fairly powerful and I guess they are pretty loath to allow any pretenders to their position to come into it.’ In many other industrialized countries, orthodox and alternative medicines have worked ‘hand in glove’ for years. In Europe, only orthodox doctors can prescribe herbal medicine. In Germany, plant remedies account for 10% of the national turnover of pharmaceutical.

Rather than resisting or criticizing this trend, increasing numbers of Australian doctors, particularly younger ones, are forming group practices with alternative therapists or taking courses themselves, particularly in acupuncture and herbalism. Part of the incentive was financial, Dr Laver said. ‘The bottom line is that most general practitioners are business people. If they see potential clientele going elsewhere, they might want to be able to offer a similar service.’

In 1993, Dr Laver and his colleagues published a survey of 289 Sydney people who attended eight alternative therapists’ practices in Sydney. These practices offered a wide range of alternative therapies from 25 therapists. Those surveyed had experience chronic illnesses, for which orthodox medicine had been able to provide little relief. They commented that they liked the holistic approach of their alternative therapists and the friendly, concerned and detailed attention they had received. The cold, impersonal manner of orthodox doctors featured in the survey. An increasing exodus from their clinics, coupled with this and a number of other relevant surveys carried out in Australia, all pointing to orthodox doctors’ inadequacies, have led mainstream doctors themselves to begin to admit they could learn from the personal style of alternative therapists. Dr Patrick Store, President of the

Royal College of General Practitioners, concurs that orthodox doctors could learn a lot about besides manner and advising patients on preventative health from alternative therapists.

According to the Australian Journal of Public Health, 18% of patients visiting alternative therapists do so because they suffer from musculo-skeletal complaints; 12% suffer from digestive problems, which is only 1% more than those suffering from emotional problems. Those suffering from respiratory complaints represent 7% of their patients, and candida sufferers represent an equal percentage. Headache sufferers and those complaining of general ill health represent 6% and 5% of patients respectively, and a further 4% see therapists for general health maintenance. The survey suggested that complementary medicine is probably a better term than alternative medicine. Alternative medicine appears to be an adjunct, sought in times of disenchantment when conventional medicine seems not to offer the answer.

(Cambridge ESOL, 2005: 46-47)

(5) Volcanoes-Earth-Shattering News

Volcanoes are the ultimate earth-moving machinery. A violent eruption can blow the top few kilometres off a mountain, scatter fine ash practically all over the globe and hurl rock fragments into the stratosphere to darken the skies a continent away.

What comes out of volcanic craters is mostly gas. More than 90% of this gas is water vapour from the deep earth: enough to explain, over 3,500 million years, the water in the oceans. The rest of the gas is nitrogen, carbon dioxide, sulphur dioxide, methane, ammonia and hydrogen. The quantity of these gases, again multiplied over 3,500 million years, is enough to explain

the mass of the world's atmosphere. We are alive because volcanoes provided the soil, air and water we need.

Geologists consider the earth as having a molten core, surrounded by a semi-molten mantle and a brittle, outer skin. It helps to think of a soft-boiled egg with a runny yolk, a firm but squishy white and a hard shell. If the shell is even slightly cracked during boiling, the white material bubbles out and sets like a tiny mountain chain over the crack - like an archipelago of volcanic islands such as the Hawaiian Islands. But the earth is so much bigger and the mantle below is so much hotter.

Even though the mantle rocks are kept solid by overlying pressure, they can still slowly 'flow' like thick treacle. The flow, thought to be in the form of convection currents, is powerful enough to fracture the 'eggshell' of the crust into plates, and keep them bumping and grinding against each other, or even overlapping, at the rate of a few centimetres a year. These fracture zones, where the collisions occur, are where earthquakes happen. And, very often, volcanoes.

These zones are lines of weakness, or hot spots. Every eruption is different, but put at its simplest, where there are weaknesses, rocks deep in the mantle, heated to 1,350°C, will start to expand and rise. As they do so, the pressure drops, and they expand and become liquid and rise more swiftly. Sometimes it is slow: vast bubbles of magma - molten rock from the mantle - inch towards the surface, cooling slowly, to snow through as granite extrusions (as on Skye, or the Great Whin Sill, the lava dyke squeezed out like toothpaste that carries part of Hadrian's Wall in northern England). Sometimes - as in Northern Ireland, Wales and the Karoo in South Africa -

the magma rose faster, and then flowed out horizontally on to the surface in vast thick sheets. In the Deccan plateau in western India, there are more than two million cubic kilometres of lava, some of it 2,400 metres thick, formed over 500,000 years of slurping eruption.

Sometimes the magma moves very swiftly indeed. It does not have time to cool as it surges upwards. The gases trapped inside the boiling rock expand suddenly, the lava glows with heat, it begins to froth, and it explodes with tremendous force. Then the slightly cooler lava following it begins to flow over the lip of the crater. It happens on Mars, it happened on the moon, it even happens on some of the moons of Jupiter and Uranus. By studying the evidence, vulcanologists can read the force of the great blasts of the past. Is the pumice light and full of holes? The explosion was tremendous. Are the rocks heavy, with huge crystalline basalt shapes, like the Giant's Causeway in Northern Ireland? It was a slow, gentle eruption.

The biggest eruptions are deep on the mid-ocean floor, where new lava is forcing the continents apart and widening the Atlantic by perhaps five centimetres a year. Look at maps of volcanoes, earthquakes and island chains like the Philippines and Japan, and you can see the rough outlines of what are called tectonic plates - the plates which make up the earth's crust and mantle. The most dramatic of these is the Pacific 'ring of fire' where there have been the most violent explosions.

(Ibid: 71-72)

(6) The Megafires of California

Wildfires are becoming an increasing menace in the western United States, with Southern California being the hardest hit area. There's a reason

fire squads battling more frequent blazes in Southern California are having such difficulty containing the flames, despite better preparedness than ever and decades of experience fighting fires fanned by the 'Santa Ana Winds'. The wildfires themselves, experts say, are generally hotter, faster, and spread more erratically than in the past.

Megafires, also called 'siege fires', are the increasingly frequent blazes that burn 500,000 acres or more - 10 times the size of the average forest fire of 20 years ago. Some recent wildfires are among the biggest ever in California in terms of acreage burned, according to state figures and news reports.

One explanation for the trend to more superhot fires is that the region, which usually has dry summers, has had significantly below normal precipitation in many recent years. Another reason, experts say, is related to the century- long policy of the US Forest Service to stop wildfires as quickly as possible. The unintentional consequence has been to halt the natural eradication of underbrush, now the primary fuel for megafires. Three other factors contribute to the trend, they add. First is climate change, marked by a 1-degree Fahrenheit rise in average yearly temperature across the western states. Second is fire seasons that on average are 78 days longer than they were 20 years ago. Third is increased construction of homes in wooded areas.

In California, where population growth has averaged more than 600,000 a year for at least a decade, more residential housing is being built. 'What once was open space is now residential homes providing fuel to make fires burn with greater intensity,' says Terry McHale of the California

Department of Forestry firefighters' union. ‘With so much dryness, so many communities to catch fire, so many fronts to fight, it becomes an almost incredible job.'

State promises to provide more up-to-date engines, planes, and helicopters to fight fires have been fulfilled. Firefighters’ unions that in the past complained of dilapidated equipment, old fire engines, and insufficient blueprints for fire safety are now praising the state's commitment, noting that funding for firefighting has increased, despite huge cuts in many other programs. ‘We are pleased that the current state administration has been very proactive in its support of us, and [has] come through with budgetary support of the infrastructure needs we have long sought,' says Mr. McHale of the firefighters’ union.

Besides providing money to upgrade the fire engines that must traverse the mammoth state and wind along serpentine canyon roads, the state has invested in better command-and-control facilities as well as in the strategies to run them. ‘In the fire sieges of earlier years, we found that other jurisdictions and states were willing to offer mutual-aid help, but we were not able to communicate adequately with them,’ says Kim Zagaris, chief of the state's Office of Emergency Services Fire and Rescue Branch.

After a commission examined and revamped communications procedures, the statewide response ‘has become far more professional and responsive,’ he says. There is a sense among both government officials and residents that the speed, dedication, and coordination of firefighters from several states and jurisdictions are resulting in greater efficiency than in past ‘siege fire’ situations.

(Cambridge ESOL, 2015: 88-89)

(7) What is a Port City?

A port must be distinguished from a harbour. They are two very different things. Most ports have poor harbours, and many fine harbours see few ships. Harbour is a physical concept, a shelter for ships; port is an economic concept, a centre of land-sea exchange which requires good access to a hinterland even more than a sea-linked foreland. It is landward access, which is productive of goods for export and which demands imports, that is critical. Poor harbours can be improved with breakwaters and dredging if there is a demand for a port. Madras and Colombo are examples of harbours expensively improved by enlarging, dredging and building breakwaters.

Port cities become industrial, financial and service centres and political capitals because of their water connections and the urban concentration which arises there and later draws to it railways, highways and air routes. Water transport means cheap access, the chief basis of all port cities. Many of the world's biggest cities, for example, London, New York, Shanghai, Istanbul, Buenos Aires, Tokyo, Jakarta, Calcutta, Philadelphia and San Francisco began as ports - that is, with land-sea exchange as their major function - but they have since grown disproportionately in other respects so that their port functions are no longer dominant. They remain different kinds of places from non-port cities and their port functions account for that difference.

Port functions, more than anything else, make a city cosmopolitan. A port city is open to the world. In it races, cultures, and ideas, as well as goods from a variety of places, jostle, mix and enrich each other and the life of the

city. The smell of the sea and the harbour, the sound of boat whistles or the moving tides are symbols of their multiple links with a wide world, samples of which are present in microcosm within their own urban areas.

Sea ports have been transformed by the advent of powered vessels, whose size and draught have increased. Many formerly important ports have become economically and physically less accessible as a result. By-passed by most of their former enriching flow of exchange, they have become cultural and economic backwaters or have acquired the character of museums of the past. Examples of these are Charleston, Salem, Bristol, Plymouth, Surat, Galle, Melaka, Soochow, and a long list of earlier prominent port cities in Southeast Asia, Africa and Latin America.

Much domestic port trade has not been recorded. What evidence we have suggests that domestic trade was greater at all periods than external trade. Shanghai, for example, did most of its trade with other Chinese ports and inland cities. Calcutta traded mainly with other parts of India and so on. Most of any city's population is engaged in providing goods and services for the city itself. Trade outside the city is its basic function. But each basic worker requires food, housing, clothing and other such services. Estimates of the ratio of basic to service workers range from 1:4 to 1:8.

No city can be simply a port but must be involved in a variety of other activities. The port function of the city draws to it raw materials and distributes them in many other forms. Ports take advantage of the need for breaking up the bulk material where water and land transport meet and where loading and unloading costs can be minimised by refining raw materials or turning them into finished goods. The major examples here are

oil refining and ore refining, which are commonly located at ports. It is not easy to draw a line around what is and is not a port function. All ports handle, unload, sort, alter, process, repack, and reship most of what they receive. A city may still be regarded as a port city when it becomes involved in a great range of functions not immediately involved with ships or docks.

(Cambridge ESOL, 2000: 47-48)

(8) The Impact of Wilderness on Tourism

Once a location is established as a main tourist destination, the effects on the local community are profound. When hill-farmers, for example, can make more money in a few weeks working as porters for foreign trekkers than they can in a year working in their fields, it is not surprising that many of them give up their farm-work, which is thus left to other members of the family. In some hill-regions, this has led to a serious decline in farm output and a change in the local diet, because there is insufficient labour to maintain terraces and irrigation systems and tend to crops. The result has been that many people in these regions have turned to outside supplies of rice and other foods.

In Arctic and desert societies, year-round survival has traditionally depended on hunting animals and fish and collecting fruit over a relatively short season. However, as some inhabitants become Involved in tourism, they no longer have time to collect wild food; this has led to increasing dependence on bought food and stores. Tourism is not always the culprit behind such changes. All kinds of wage labour, or government handouts, tend to undermine traditional survival systems. Whatever the cause, the

dilemma is always the same: what happens if these new, external sources of income dry up?

The physical impact of visitors is another serious problem associated with the growth in adventure tourism. Much attention has focused on erosion along major trails, but perhaps more important are the deforestation and impacts on water supplies arising from the need to provide tourists with cooked food and hot showers. In both mountains and deserts, slow-growing trees are often the main sources of fuel and water supplies may be limited or vulnerable to degradation through heavy use.

Stories about the problems of tourism have become legion in the last few years. Yet it does not have to be a problem. Although tourism inevitably affects the region in which it takes place, the costs to these fragile environments and their local cultures can be minimized. Indeed, it can even be a vehicle for reinvigorating local cultures. And a growing number of adventure tourism operators are trying to ensure that their activities benefit the local population and environment over the long term.

In the Swiss Alps, communities have decided that their future depends on integrating tourism more effectively with the local economy. Local concern about the rising number of second home developments in the Swiss Pays d'Enhaut resulted in limits being imposed on their growth. There has also been a renaissance in communal cheese production in the area, providing the locals with a reliable source of income that does not depend on outside visitors.

Many of the Arctic tourist destinations have been exploited by outside companies, who employ transient workers and repatriate most of the profits

to their home base. But some Arctic communities are now operating tour businesses themselves, thereby ensuring that the benefits accrue locally.

Too many people living in fragile environments have lost control over their economies, their culture and their environment when tourism has penetrated their homelands. Merely restricting tourism cannot be the solution to the imbalance, because people's desire to see new places will not just disappear. Instead, communities in fragile environments must achieve greater control over tourism ventures in their regions, in order to balance their needs and aspirations with the demands of tourism. A growing number of communities are demonstrating that, with firm communal decision-making, this is possible. The critical question now is whether this can become the norm, rather than the exception.

(Cambridge ESOL, 2006: 86-87)

المستخلص

تشدّد هذه الدّراسةُ على أهمّيّة تلازمِ الألفاظ و علاقته بالاستيعاب القرائيّ في السّياق العراقيّ لتعليم اللّغة الإنكليزيّة. تهدفُ هذه الدّراسة إلى تطوير الاستيعاب القرائيّ لدى الطّلبة العراقيّين متعلمي اللّغة الإنكليزيّة كلغة أجنبيّة في المستوى الجّامعيّ من خلال زيادة معرفتهم بالمتلازمات اللّفظيّة باستخدام أنشطة إنماء الوعي اللّغويّ.

تتألّف هذه الدّراسة من أربعة فصول. إذ خُصّصَ الفصلُ الأوّل لمقدّمات الدّراسة و الّتي شملت مشكلة الدّراسة و فرضيّاتها و إجراءاتها و حدودها و أهدافها و أهمّيتها. أمّا الفصلُ الثّاني فقد ضمّ الإطار النظريّ للدّراسة و الّذي تناول الاستيعاب القرائيّ و الوعيّ اللّغويّ و تلازم الألفاظ مع مراجعة لبعض الدّراسات الّتي لها علاقة بموضوع البحث. و الفصلُ الثالث شمل الجّانب العمليّ إذ أرسى التّصميم التّجريبيّ للدراسة مع الأخذ بنظر الاعتبار إختيار العيّنات و تكافؤها. و يصفُ هذا الفصلُ الاختبارات الّتي قامت عليها الدّراسة، مُركّزًا على تصميمها و صدقها و ثباتها و إجراءها، و كذلك يصف أنشطة إنماء الوعيّ بتلازم الألفاظ. و ينتهي هذا الفصل بعرض و مناقشة نتائج فرضيّتيّ الدّراسة. و قد كُرّس الفصلُ الأخير لعرض الاستنتاجات و التوصيات و مقترحاتٍ لمزيد من البحوث.

و لتحقيق أهداف البحث، استخدم الباحث المنهج التجريبيّ ذا المتغيّرين التّابع و المستقل و قام بتصميم اختبار متلازمات لفظيّة و اختبار استيعاب قرائيّ لغرض جمع البيانات. و ضمّت عيّنة البحث اثنين و ستّين طالبا متخصّصا في دراسة اللّغة الإنكليزيّة من طلبة المرحلة الثانية في كلّية التّربية/جامعة تكريت. شملت التجربة ثماني حصص تعليميّة لكلّ مجموعة. و تلقّت المجموعة التّجريبيّة (ع: ٣١) تعليمًا للمفردات باستخدام خمس فعّاليات لإنماء الوعيّ بالمتلازمات اللّفظيّة و هي إثارة انتباه المتعلّم للمتلازمات اللفظيّة في النصّ القرائيّ، تصنيف المتلازمات اللّفظيّة، إخبار بيانات المدوّنات الحاسوبيّة، الاستكشاف بين اللّغات و التدرّب على استخدام مصادر المتلازمات اللّفظيّة، بينما تلقّت المجموعة الضابطة (ع: ٣١) تعليمًا للمفردات على شكل كلمات مفردةٍ بالطريقة التقليديّة. و باستخدام اختباري "ت" لعيّنتين مستقلتين، بيّنت نتائج اختبارات المتلازمات اللّفظيّة و الاستيعاب القرائيّ القبليّة و البعديّة أنّ إنماء الوعي بالمتلازمات اللّفظيّة أحدث أثرًا في تطوير المعرفة بالمتلازمات اللّفظيةّ و الاستيعاب القرائيّ لدى المجموعة التّجريبيّة، بالمقارنة مع المجموعة الضابطة. فتخلص الدّراسة إلى أنّ إنماء الوعي بالتّلازم اللفظيّ يحوي دورا إيجابيّا في تطوير المعرفة بالمتلازمات اللّفظيّة و الاستيعاب القرائيّ لدى الطّلبة العراقيّين متعلمي اللّغة الإنكليزيّة كلغة أجنبيّة في المستوى الجامعيّ.

جمهوريّة العراق

وزارة التعليم العالي و البحث العلمي

جامعة ميسان

كليّة التّربية

قسم اللّغة الإنكليزيّة

دور إنماء الوعي بتلازم الألفاظ في تطوير الاستيعاب القرائيّ لدى الطّلبة العراقيّين متعلمي اللّغة الإنكليزيّة كلغة أجنبيّة في المستوى الجامعيّ

رسالة مقدّمة إلى مجلس كلّيّة التّربية- جامعة ميسان و هي جزء من متطلّبات نيل درجة الماجستير آداب في اللّغة الإنكليزيّة و علم اللّغة

تقدّم بها

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