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**An Investigation of the Use of Lexical Cohesive Devices in
Academic Writing Essays of Grade 9 Learners at an
American School in Sharjah**

دراسة تأثير استخدام أدوات الربط المختلفة في كتابة المقالات الأكاديمية لطلاب
الصف التاسع في مدرسة أمريكية في الشارقة

by

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**Dissertation submitted in fulfilment
of the requirements for the degree of
MASTER OF EDUCATION**

at

The British University in Dubai

October 2019

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ABSTRACT

Writing is considered a challenging skill for L2 learners of English regardless their proficiency level, particularly in terms of achieving coherence and text unity. Research has shown that most L2 learners usually underuse, misuse or overuse cohesive devices that are significantly responsible for maintaining cohesion and coherence in their essay writing. This study aims to investigate the use of lexical cohesive devices for 56 grade 9 L2 learners at an American curriculum school in Sharjah city, UAE. This paper focuses on identifying the frequency of occurrence of six lexical cohesive devices including repetition, synonyms, antonyms, hyponyms, meronyms and collocations in L2 students' critical review essay writing. It also identifies the correlation between the number of lexical cohesive devices and the writing quality. Furthermore, the study attempts to find the main difficulties encountered by L2 learners regarding the use of lexical cohesive devices in writing. In order to achieve the purpose of the study, the mixed-methods approach was adopted. The quantitative descriptive statistics approach was used to find out the frequency of LCDs in the essay, and the quantitative correlational statistics approach, using Pearson Correlation Coefficient, was implemented to examine the correlation between the number of LCDs and the writing quality. However, the qualitative descriptive approach, using semi-structured interviews of 4 teachers of English and 15 participants, was used to identify the challenges faced by the participants in terms of using LCDs in essay writing.

An analysis of the findings demonstrated that repetition and collocations were the most frequently used lexical cohesive ties, while meronyms and hyponyms were the least common in the participants' writing. There was a moderate positive correlation between cohesive density and the writing quality. The participants faced difficulties dealing with lexical cohesive devices such as lack of proper feedback and correction of cohesive ties in writing, teachers' inability to balance training L2 learners on all lexical cohesive devices equally and teaching these devices separately instead of delivering them to learners in the context of writing. Overall, it is recommended that teachers teach lexical cohesive devices in the context of reading and writing, and they are advised to clearly indicate their grading criteria in the writing rubric. Furthermore, teachers are recommended to raise learners' awareness of lexical cohesion and its benefit in terms of achieving text unity and coherence. Further research is needed to investigate the effectiveness of socio-linguistic variables such as participants' age, sex, writing genres and L2 proficiency level and how they might affect text coherence.

الخلاصة

تعتبر الكتابة مهارة صعبة لغير الناطقين باللغة الانجليزية بغض النظر عن مستوى كفاءتهم في اللغة ، وخاصة فيما يتعلق بتحقيق ترابط ووحدة النص. وقد أظهرت الأبحاث السابقة أن معظم المتعلمين للغة الإنجليزية يواجهون صعوبة في الحفاظ على انسجام وتماسك النص مثل الإستخدام المفرط أو السيء لأدوات الربط اللغوية في كتابة المقالات. ولذلك، تهدف الدراسة الحالية إلى بحث استخدام هذه الأدوات وتأثيرها في كتابة المقالات لطلاب الصف التاسع بمدرسة أمريكية في إمارة الشارقة بدولة الإمارات العربية المتحدة. وتحديدا، تهدف هذه الدراسة إلى تحديد معدل وقوع أدوات الربط اللغوية المختلفة مثل التكرار والترادف والضد والأسماء المندرجة والأسماء المجزأة والمتلازمات اللفظية في كتابة مقال نقدي للطلاب باللغة الإنجليزية. كما تهدف الدراسة إلى تحديد العلاقة بين أعداد أدوات الربط اللغوية المستخدمة وجودة الكتابة ومن ثم تحديد الصعوبات التي يواجهها متعلمي اللغة الإنجليزية من غير الناطقين بها فيما يتعلق بأدوات الربط اللغوية واستخدامها في كتابة المقالات.

ومن أجل تحقيق الغرض من الدراسة ، اعتمد نهج الأساليب المختلطة ، واستخدم نهج الإحصاءات الوصفية الكمية لمعرفة معدل وقوع أدوات الربط اللغوية المختلفة في كتابة المقال ، وتم تنفيذ نهج الإحصاءات الارتباطية الكمية ، باستخدام معامل الارتباط بيرسون ، لدراسة العلاقة بين أعداد أدوات الربط اللغوية المختلفة ونوعيه الكتابة. كما تم استخدام النهج الوصفي النوعي ، باستخدام مقابلات شبه منظمه لأربعة مدرسين من اللغة الانجليزية و 15 مشاركا ، لتحديد التحديات التي يواجهها المشاركون في الدراسة فيما يتعلق باستخدام أدوات الربط اللغوية في كتابة المقالات.

واظهر تحليل للنتائج ان التكرار والمتلازمات اللفظية كانا أكثر الروابط اللغوية المتجانسة استخداما ، بينما كانت الأسماء المندرجة والأسماء المجزأة هي الأقل شيوعا في كتابة الطلاب المشاركين . كما أظهرت النتائج أن هناك ارتباط إيجابي معتدل بين كثافة أدوات الربط اللغوية المتماسكة وجودة الكتابة. ومن بين الصعوبات التي واجهها الطلاب المشاركين في الدراسة ، من حيث التعامل مع أدوات الربط اللغوية المتجانسة ، عدم وجود تغذية راجعة صحيحة و عدم تصحيح الإستخدام علي الخاطى لهذه الادوات من قبل الطلاب في الكتابة ، وكذلك عدم قدره المعلمين علي احداث توازن في تدريب المتعلمين على جميع أدوات الربط في الكتابة وكذلك تدريس هذه الأدوات بشكل منفصل بدلا من تدريسها للمتعلمين في سياق الكتابة. استخدام هذه الأدوات

وبشكل عام ، يوصي بان يقوم المعلمون بتدريس أدوات الربط اللغوية في سياق القراءة والكتابة ، وينصح بالاشارة بوضوح إلى معايير تقييم هذه الأدوات في الكتابة. وعلاوة علي ذلك ، يوصي المعلمون بزيادة وعي المتعلمين بأهمية التماسك اللغوي وفائدته من حيث تحقيق وحده النص وتماسكه. وهناك حاجة إلى اجراء المزيد من البحوث للتحقيق في تأثير المتغيرات الاجتماعية مثل العمر و الجنس و نوع النص الكتابي و مستوى كفاءة المتعلمين للغة الإنجليزية على وحدة وتماسك كتابة المقالات.

DEDICATION

I dedicate me dissertation to my lovely parents, who have always encouraged me to achieve my short and long-time goals, especially the academic ones that would promote my skills and abilities in the field of education. They have continuously motivated me to do my master's degree and to fulfill my dreams both academically and professionally.

I also dedicate this dissertation to my lovely brothers and sisters whose absolute support and encouragement are endless to me. Their positive thinking and motivation have enriched my skills and abilities through shifting my own way of thinking into a more energetic, enthusiastic and ambitious attitude.

I can never forget the full support that I have always received from my lovely, supportive, sincere, honest and kind wife, Shahira Gaber, who has continually motivated me to finalize my dissertation and pursue my dreams.

ACKNOWLEDGEMENT

During the journey of my master's degree study at the British University in Dubai (BUID) , I faced a lot of difficulties as well as several challenges that have forced me to go through different situations on a daily basis for a period of two years. Thus, completing this dissertation is considered a precious and valuable expertise for me. A big part of the success of my journey at BUID is achieved because of Dr. Emad Abu-Ayyash, the dissertation supervisor. Hence, I would like to express my gratitude for the unlimited help and support that he has provided me with. Undoubtedly, without his support and encouragement nothing could have been done. I would like to express my full gratitude for his never-ending encouragement, precious advice and constructive feedback in addition to his support, mentorship, care, kindness and patience during the dissertation phase and earlier phases necessary to fulfill the requirements for the degree of Master of Education. His incredible effort had a profound impact on developing my identity both academically and professionally.

I would like to thank all my colleagues at work and my students who helped me to achieve the purpose of my study by being part of it in a way or another.

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List of abbreviations

CDs: Cohesive Devices

LCDs: Lexical Cohesive Devices

L1: First Language

L2: Second Language

SLA Second Language Acquisition

ELA: English Language and Arts

TOEFL: Test of English as a Foreign Language

IELTS: International English Language Testing System

SAT: Standardized College Admissions Test

ESL: English as a Second Language

SFL: Systemic Functional Linguistics

SFG: Systemic Functional Grammar

EFL: English as a Foreign Language

MAP: Measurement of Academic Progress

DA: Discourse Analysis

CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 Background of the study

This chapter focuses on providing background information about the dissertation topic, “An Investigation of the Use of Lexical Cohesive Devices in Academic Writing Essays of Grade 9 Learners at an American School in Sharjah”. It also identifies the main research problem and it highlights the major focus of this research paper. In addition, this chapter includes the rationale and significance of the present study. Three research questions have been identified to guide the scope of the study and to keep it focused at all stages of the research paper. Finally, a brief description of the structure of the study is given to summarize the major sections of the present research.

Recently, English has become the most commonly used language worldwide. According to Saud (2015), the popularity of the English language has increased because it is the medium of communication in different fields including technology, science, education, and universal trade. Learning different English skills has never been easy, particularly reading and writing for academic purposes. Jordan (1997) agrees that non-native English students are currently required to achieve a high level of competency in main language skills such as reading and writing, which are fundamental requirements for studying at universities all over the world.

Most L2 learners tend to encounter difficulties while writing academic essays because the ability to produce a well-written essay in another language cannot be achieved naturally. Instead, it necessitates learning some basics, practicing in a variety of contexts and gaining enough expertise through interpreting, organizing and developing ideas logically. Braine and Yorozu (1998) point out that the writing skill is one of the most complicated language skills since it requires perfectly planned and well-presented train of thoughts that may be sophisticated for native speakers themselves. Similarly, Richards and Renandya (2002) believe that the difficulty results from generating as well as organizing ideas and interpreting such ideas into meaningful texts. According to Carson (2001), writing is a process that requires composing diverse ideas in the form of descriptive, argumentative, analytical, explanatory, narrative or informative texts. Additionally, Myles (2002) states that writing is considered a process that definitely creates obstacles for students while trying to produce written texts in L2 academic setting. Consequently, writing mandates endless efforts and practices while trying to

compose, interpret, analyze and improve ideas which are completely difficult tasks for L2 learners as they encounter cognitive difficulties associated with second language acquisition (SLA).

Most L2 learners are continually required to write essays either as part of international examinations for university enrolment or as part of their academic studies. McDevitt (1989) states that non-native English speakers might master oral communication skills easily; yet, they do not always manage to meet the required standards of lexical and grammatical accuracy and proficiency levels that their teachers of academic writing may expect them to have. Furthermore, he agrees that they produce what he called “spaghetti writing”, which he describes as having lots of deficiencies and weaknesses.

Among the main challenges encountered by L2 learners’ academic writing essays is the lack of cohesion and coherence in their writing as pointed out by El-Gazzar (1994). This results from various reasons including teachers’ sole focus on teaching some grammatical or syntactic connectors such as conjunctions. At the same time, mostly inadvertently, they tend to ignore other significant LCDs including synonyms, antonyms, collocations, repetition, derivatives and meronymy. Another factor for this problem is L2 learners’ incoherent thoughts and the apparent misuse of appropriate lexical and grammatical CDs in written essays. Additionally, Liu (2000) states that cohesion is not always achieved in L2 students’ writing due to the insufficient knowledge and usage of not only grammatical ties, but of lexical transitions or devices as well. According to Ferris (1994), these cohesive devices constitute the cornerstone of text unity, cohesion and readability. As a result, L2 learners are required to rise their acknowledgement and understanding of the proper usability and implementation of these ties so that they can produce well-written, coherent and meaningful texts. Tanskanen (2006) mentions that creating unified discourse is highly dependent on the students’ ability to acknowledge, understand and employ the necessary cohesive transitions that are responsible for making the various components of the text fit well together so that they contribute to the overall aspect of text’s coherence.

Suningsih (2016) argues that linguists highlight the need for including CDs in written discourse so that they can distinguish between what they consider as texts and non-texts. Morris and Flirts (1991) define cohesion as the unique characteristic feature that is mainly responsible for having sentences or paragraphs hang well together. According to Adiantika (2015), Halliday and Hassan (1976) are the first to introduce the concept of cohesion and the need for proper

CDs that build semantic and meaningful relations within the different parts of a written text. Additionally, they conclude that cohesion can best be accomplished in written discourse if the understanding or comprehension of some elements of the discourse relies on that of another. These elements are referred to as CDs. Lee (2002) states that coherence and cohesion are substantial characteristics of effective academic writing and they have to be thoroughly explained, taught and described in the classroom. Furthermore, she identifies some inappropriate pedagogical practices

regarding cohesion and coherence where teachers focus on coherence on the sentence or paragraph level instead of emphasizing coherence for the whole written text as one unique unit.

1.2 The Research Problem

It has been proved by previous research that L2 learners usually underuse, overuse, or misuse specific categories of CDs (Abdulrahman, 2013; Adiantika, 2015; Bolton, Nelson & Hung, 2003; Granger & Tyson, 1996; Hinkel, 2001; Kang, 2009). Therefore, the researcher has carefully identified the main problem encountered by grade 9 L2 students where he works at an American curriculum school in Sharjah city, UAE. This problem is associated with the inappropriacy of utilizing LCDs in their academic writing essays. Grade 9 learners are all non-native English speakers who come from different nationalities and they are mostly Arabic speakers. Each semester they have to write a number of creative and academic essays based on their English course requirements (ELA). Furthermore, there is a clear focus on an academic essay writing each semester including cause and effect essays, problem and solution essays, literary analysis essays and compare and contrast essays. The researcher continually collects these essays for correction and marking purposes in which he gives professional feedback on error-correction using correction codes so that students can have the opportunity to identify and re-write their essays based on the appropriate feedback given to them.

Consequently, the researcher has fully acknowledged the obstacles that these learners face while writing their essays over the period of one academic year. These problems are mainly related to the lack of understanding of the functions of LCDs as well as the inability to apply and implement these devices which are needed to write an academic essay. In particular, the researcher has found that L2 learners have difficulty using a number of LCDs including repetition, collocation, synonyms, antonyms, hyponyms, and meronyms. Although there are frequent defects in students' use and implementation of grammatical cohesive devices, it is the

application of lexical items that helps to achieve successful communication through writing. By the same token, Ferris and Hedgcock (1998) agree that the majority of L2 learners suffer the most with identifying and choosing the proper LCDs that they need for their academic writing essays. This is due to the notion of being not sufficiently aware of the extra sense of such lexical devices as well as the circumstances that control their appropriate selection of these ties.

Ried (2000) states that these reasons explain why L2 learners avoid using LCDs including collocations, antonyms, synonyms and idiomatic expressions in their writing. In this aspect, El-Gazzar (1994) points out that lexical errors are the most common type of errors in L2 students' writing, and both L2 learners and native English speakers consider lexical errors to be the most distinguished reason for disruptive

communication. What is more, Ried (2000) mentions that it is evident that native speakers can still understand a written text with grammatical devices' errors and accurate lexical ties than to have errors in LCDs themselves with accurate grammatical ties.

1.3 Significance and Rationale of the Study

The researcher is interested in conducting the present study in order to investigate, analyze and interpret the data that were collected to highlight the main problems faced by grade 9 learners, particularly those related to the use of LCDs in academic writing since they are often given little attention and insignificant roles in English writing classes (Kafes, 2012 ; McGee, 2009) . As a result, the researcher's absolute goal is to find practical solutions to assist those learners to overcome their obstacles and to promote their capabilities by providing readable and more coherent written essays.

The rationale for choosing grade 9 learners as the sample for this study is the importance of this transitional stage that represents the initial and fundamental step for the high school educational cycle. Additionally, these learners undertake a lot of international examinations such as MAP, TOEFL IBT, IELTS, and SAT tests as a major prerequisite of their "English Language and Arts" (ELA) course at school. Thereafter, these examinations are main requirements for university enrolment after graduating from high school. That is why it is highly recommended that they practice and prepare well for these exams including the academic writing section in each test. Overcoming the writing difficulties including the proper use and implementation of LCDs will ensure that their writing samples align well with the

writing rubric for each of these exams, particularly in terms of cohesion and use of proper CDs which is an essential criteria for marking these exams.

The study is also significant for the researcher as a high school English teacher to identify the points of weaknesses in grade 9 students' writing so that he can modify and adopt alternative teaching and learning strategies in order to help these learners become proficient writers in English so that they can move smoothly towards grades 10, 11 and 12 without critical weaknesses in terms of the academic writing part of the English language. Another basic benefit of the present study is to highlight the errors committed by L2 learners concerning the use of LCDs in writing since not enough research has been done to investigate this potential area of research.

The majority of previous studies have covered other areas of CDs such as the grammatical ties rather than the lexical ones. Thus, the researcher, who has more than 11 years of ESL teaching experience, feels it is his responsibility to investigate this area and provide practical solutions and recommendations that are

valuable to other researchers and that would help other English teachers who teach academic writing to ESL learners everywhere. Moreover, an immense number of the previous studies focus on conducting quantitative analysis of the number of CDs used without investigating whether or not they are used properly by L2 learners.

Furthermore, the current study is important because it aims at identifying the overall correlation between the total number of LCDs and learners' mark to analyze and evaluate the quality of students' writing as per the use of lexical cohesion. This is valuable as not enough research has emphasized the quality of L2 learners' writing in terms of the number of cohesive ties used to write academic essays, particularly critical review essays. In this regard, the researcher has not found a single study addressing cohesion in a critical review essay; thus, the present study fills in this gap by focusing the current research paper on investigating lexical cohesion in critical review essays. In addition, this study constructs a big attempt to find alternatives to promote the quality of the researcher's classroom-teaching to enhance the learning process at school in general and to assist in English language development for L2 learners as well. Murcia and Olshtain (2000) believe that lexical errors are very common among L2 learners and they outweigh other kinds of errors by 3 or 4 to 1, which makes it a rich area of investigation.

1.4 Aims and Research Questions

The present study aims at ; investigating the frequency of occurrence of each category of LCDs, finding the correlation between the number of LCDs and grade 9 L2 learners' grades in academic writing essays, and looking at the perspectives of both teachers and learners regarding the challenges faced by grade 9 learners while dealing with LCDs in their academic writing. To further fulfill and achieve these aims, the following research questions have been established to govern the scope of this study:

1. What is the frequency of each type of LCDs in grade 9 learners' writing a critical review essay?
2. What is the overall correlation between the total number of LCDs used and grade 9 learners' grade in writing a critical review essay?
3. What are the difficulties that grade 9 students at an American school in Sharjah city encounter in dealing with lexical cohesion in writing from the perspectives of teachers and learners?

1.5 Structure of the Study

The present study is organized into five parts. Chapter 1 introduces the research area in its context, the research problem, the significance and rationale of the paper, the research aims and questions, as well as organization of the study. Chapter 2 is concerned with the framework of theories underpinning the study . A detailed discussion of the conceptual framework is provided to define the terms. Furthermore, a solid review of previous literature of cohesive ties is thoroughly discussed. Chapter 3 identifies the research methodology and the proposed framework for data analysis. Data collection tools are highlighted and ethical considerations concerning the study are explained. Chapter 4 reports the findings and discussions of the results of the study. The conclusion of the research findings, the summary, limitations of the study, recommendations and suggestions for further research are discussed in chapter 5.

CHAPTER TWO

LITERATURE REVIEW

Part One: Conceptual and Theoretical Framework

2.1 Conceptual Framework

Luse, Mennecke and Townsend (2012) concur that including a conceptual framework in a research paper is necessary since it assists the researcher to define the terms and concepts that are related to the research problem. Also, Liehr and Smith (1999) state that the conceptual framework reflects the researcher's explanation of how the study problem would be further identified and illustrated. Additionally, Ravich and Carl (2016) aver that conceptual frameworks are a general reflection of the researcher's way of thinking of the whole study or research problem. Therefore, the following section of the present study focuses on defining the necessary terms that are included in the current paper.

2.2 Text and Texture

Richard et al. (1989) defines a "text" as an example of using language where an act of communication has been produced thereafter. Also, Brown and Yule (1983) have employed the term "text" in (DA) as a verbal record of a communicative act. According to Bahaziq (2016), linguists including Halliday & Hasan (1976) use the term "text" for written and spoken discourse that constructs one, unified whole. He mentions that in linguistics, a "text" is best defined as a unit of meaning not of form or grammar like a clause or a sentence. Eggins (1994) states that "texture" is the source of unity within a text and it refers to the cohesive relation between different units of a text. The significance of "texture" is highlighted in the notion that it is the key element which helps to recognize between texts and non-texts or disconnected sequence of sentences. Shen (2012) employs a good example that clearly illustrates the differences between a text and texture. She includes these examples as an illustration:

A- Mary is a good student. She is the first one in her class.

B- Mary is a good student. It is getting warmer and warmer.

According to Shen (2012), (A) is a good example of a text since the second sentence is relevant and related to the first one. Therefore, it gives a whole and unified meaning that Mary is an excellent girl who is referred to using the pronoun "she" in the second sentence. According to

Halliday and Hasan (1976), texture is provided by the cohesive relation that exists between “she” and “Mary”. Although (B) has two

grammatically correct sentences, they are semantically incoherent and not related to each other. That is why it has no texture and it can not be called a text.

2.3 Ties

Halliday and Hasan (1976) use the term “ties” to refer back to each occurrence of a pair of items that are related cohesively such as “Mary” and “she” in example (A). Consequently, the relationship between both *Mary* and *she* in the previous example represents a tie. Figure 1 shows the concept of a tie as identified by Halliday and Hasan (1989):



Figure (1): The Concept of Tie (Halliday and Hasan,1989:73).

2.4 Coherence

Kafes (2012) mentions that the term “coherence” emerged in the late 1960s due to linguists’ inclination to shift the language focus to the discourse level instead of the sentence level. Therefore, there are various definitions of coherence by different linguists. Grabe and Kaplan (1986) support the view that definitions of coherence are seen differently by different language analysts because of the controversial nature of coherence. In addition, the dispute regarding the proper definition of coherence results from the contradiction among linguists in that some consider coherence as linguistic, text-based entity while others view it as non-linguistic or reader-based. Hellalet (2013) believes that coherence is explained by Halliday and Hasan (1976) according to the text-based approach as the semantic unity of a text which is reached through utilization of different CDs. In other words, coherence is defined regarding the means of linguistic features or cohesive ties that distinguish a unified text from a group or a cluster of unrelated sentences. On the contrary, (Carrel, 1982, 1984; Rumelhart, 1977; Widdowson, 1978) tend to define coherence according to the reader-based approach as the successful communication that occurs between the text and the reader in which the reader is able to comprehend and interpret the text’s message using background knowledge and prior experience that help to reconstruct the author’s meaning. Moreover, (Connor &Farmer, 1990; Firbas, 1986;

Lautamatti, 1987) agree that coherence is best defined as the information structure that helps the reader in interpreting and comprehending a text and its development.

2.5 Cohesion

Halliday and Hasan (1976) state that cohesion is best defined as the relationships of meaning that are present or existent within a text, and that shape and define it as a text. Therefore, they perceive cohesion

as of a semantic concept. Moreover, they concur that cohesion is successfully achieved when the comprehension and understanding of one part of the discourse relies solely on that of another. As a result, some elements of discourse are never decoded without referring to other specific elements that are related to them using cohesive ties. Bahaziq (2016) concludes that a text is characterized as cohesive if its elements are well-related or tied together in a way that is meaningful to the readers. Cohesion is not expressed through grammar alone, but through vocabulary as well since they are types of cohesion. Thus, Halliday and Hasan state that some types of cohesion are interpreted and understood through grammar while others are realized through vocabulary. By way of elaboration, Rahman (2013) states that Halliday and Hasan classify grammatical cohesion into four main categories; reference, substitution, ellipsis and conjunction.

2.6 Lexical Cohesion

Since the present study is mainly concerned with the investigation of lexical cohesion in L2 learners' writing, more explanation of the terms will be dedicated to the definitions of this type of cohesion including its elements which will constitute the main focus of the current research paper. According to Iseni (2013), lexical cohesion is concerned with the vocabulary choice, and it centers the relationship that is present between the different lexical items in a text including phrases, words, and sentences. What is more, Halliday (1994) mentions that lexical cohesion is best expressed as the cohesive result or effect which is basically achieved through the choice of vocabulary. Castro (2004) says that lexical cohesion is a tool which is utilized by writers with the purpose of creating unity in a text. Furthermore, writers can successfully achieve lexical cohesion through the use of a number of devices including reiteration (synonyms, antonyms, hyponyms, meronyms, repetition) and collocation. In this aspect, cohesion is maintained and expressed using different kinds of vocabulary. Adiantika (2015) states that Halliday and Hasan

(1976) explain what is meant by reiteration as two items which have a similar referent, and which could be repeated or have the same meaning in a text. Furthermore, reiteration includes repetition, synonyms, antonyms, meronyms and hyponyms. These lexical cohesive devices are significant for the current study as they represent the instrument of analysis for the researcher. Therefore, the researcher will provide an explanation of each lexical cohesive tie accordingly.

2.6.1 Repetition

Iseni (2015) concurs that repetition is considered the most straightforward source of lexical cohesion because it connects two similar or identical lexical items. Also, the continuity of repeating different lexical items will definitely result in making it easier for the reader to match strings in a sequence of sentences (Chan, T' Sou, Choy, 2000). Writers use repetition to achieve unity and cohesion of a text via repeating the same lexical item. Consider the example below:

(A) *I am going to the **party** tonight.* (B) *The **party** will be held in the main hall.*

Here, the boldfaced word “party” is repeated in sentence (B) to create unity and cohesion in the text.

2.6.2 Synonyms

According to Cambridge English Dictionary (2019), a synonym is a word or a phrase that is similar or nearly similar to the meaning of that of another word or a phrase in the same language. Alarcon (2013) states that synonyms refer to the relation that exists between lexical elements whose sense is the same or nearly the same. The two sentences below show examples of synonyms for more explanation:

(1) I **left** my house a week ago. Actually, I **departed** the whole area.

(2) Homes are **inexpensive** at the moment. They are really **cheap**.

The boldfaced words in example sentence (1), “left” and “departed” are verbs used as synonyms. Similarly, the boldfaced adjectives in example sentence (2), “inexpensive” and “cheap” are synonyms.

2.6.3 Antonyms

An antonym describes the relationship between two lexical items when they have opposite meanings as illustrated in the following example:

*I used to have an **old** car. Now, I have a **new** one.*

In this illustration, the words “old” and “new” are antonyms (opposites).

2.6.4 Meronyms

According to Saud (2018) meronymy, refers to the part-whole relationship between two lexical items. The example below explains the meaning and definition of meronymy:

*There are different parts of a vehicle including an **engine**, **wheels** and **lights**.*

The words “engine”, “wheels” and “lights” are all examples of meronymy by being parts of the whole “vehicle”.

2.6.5 Hyponyms

Kafes (2012) defines hyponymy as the specific to general relationship between two lexical items. For instance:

My roommate has some **pet animals** in his family’s big home. He has five **dogs**.

Here, the word “dogs” is more specific than the word “pet animals”, which is a general word.

This example shows the specific-general relationship, which is referred to as hyponymy. By way of elaboration, hyponymy is a term used to designate a particular member of a broader class. For example, the words “daisy” and “rose” are hyponyms of the word “flower”. They are also called subordinates or subtypes. However, the word “flower” is called the superordinate since its meaning includes and dominates the two previous words (daisy and rose) as stated by Halliday and Hasan (1976).

2.6.6 Collocations

McCathy et al. (2005) agrees that collocation is the way in which words are closely grouped or connected with each other in a natural combination. Collocation is meant to refer to two or more lexical items that collocate with each other in order to provide a new meaning that is different from the meaning of each word separately. paltridge (2012) states that collocation includes combinations of adjectives and nouns such as “**low pressure**”, verbs and nouns such as “**run out of petrol**” and other items as well.

According to Halliday and Hasan (1976), collocation is the sort of lexical cohesion that creates most of the problems to linguists due to its non-systematic nature. Despite all this, they concur that the benefits and effects of collocations on texts’ coherence is valuable and clear. Additionally, collocations include words and phrases or lexical items that appear together in

similar contexts; however, they can be related to each other in one text or context and they may seem unrelated in another. This is true since interpretation and understanding of the collocational relationships relies mainly on the reader's background information and reading expertise as explained by Witt and Faigley (1981). Table 1 shows some examples of CDs.

Main Categories	Type of tie	Example
Grammatical cohesion	Reference	Clifton achieved the highest grade in the test. He must have studied well.
	Substitution	I bought the red blouse. My sister preferred the red one.
	Ellipsis	A: Are the guests coming soon? B: Yes, they are (coming).
	Conjunctions	Mark failed to meet the assignment's deadline. Therefore , he failed the module.
Lexical cohesion	Repetition	They were lost in the woods for three days. The woods were really frightening.
	Collocation	Let's go swimming this evening.
	Hyponymy	I bought a number of electronic devices last month. I got an iPhone, an iPad and an iPod.
	Synonymy	I left my house last year. Actually, I departed the whole area.
	Antonymy	My friend lives in a small villa. It is located in a huge compound.
	Meronymy	My car broke last night. There was something wrong with its engine.

Table I: *Examples of cohesive devices* adopted from Abu-Ayyash (2017)

2.7 Theoretical Framework

The purpose of the present study is to investigate and analyze lexical cohesive devices in students' writing; therefore, what underpins this study are both Halliday and Hasan's 1976 model of cohesion and Halliday's theory of Systemic Functional Linguistics (SFL) which is also referred to as Systemic Functional Grammar (SFG). Sub-sections (3.7.1 and 3.7.2) include an explanation of the previously mentioned model and theory in order to get more insight into how they underpin the analysis of the current research.

2.7.1 Halliday and Hasan (1976) Model of Cohesion

According to Halliday and Hasan's 1976 model of cohesion, cohesion is split into two different categories; grammatical and lexical. Karadeniz (2017) mentions that Halliday and Hasan further sub-divide grammatical cohesion into four textual devices; reference, substitution, ellipsis and conjunction. Ghasemi (2013) defines reference as the indication of information from elsewhere using personals, comparatives and demonstratives whereas substitution means replacing one item by another. Also, ellipsis refers to omission of one item or a component while conjunction is defined as the illustration of a particular meaning that presupposes present

components or items in the discourse including adversative, additive, casual and temporal. However, lexical cohesion is mainly concerned with lexical or vocabulary ties including reiteration and collocation. Abu-Ayyash and McKenny (2017) add that one of the most comprehensive models of lexical cohesion has been adopted by Halliday and Matthiessen (2014). In this model lexical cohesion has been divided into five classifications including repetition, hyponymy, synonymy/antonymy, meronymy and collocation.

Abu-Ayyash and McKenny (2017) further state that Halliday and Hasan's (1976) model of cohesion has immensely paved the way to linguists and discourse analysts to increase interest in studying the relations that occur among the different parts of a text. In addition, the model has been regarded as a significant instrument for the analysis of discourse and texts as well. This is clearly apparent in the inclusion of the 1976 model in a huge body of research and studies all over the world including (Abu-Hatab, 1992; Altunkaya, 1987; Bae, 2001; Coşkun, 2005; Jin, 1998; Karabağ & İşsever, 1995; Karatay, 2010; Mendoza, 1998; Ramadan, 2003; Said, 1988; Subaşı-Uzun, 1995; Yue, 1993). The significant value of the model lies in the fact that it is rooted in the sort of linguistic analysis which extends beyond the sentence level. What is more, it is noteworthy to state that the 1976 model has widespread around the world where it has been implemented for linguistic analysis purposes in several languages such as the German language (Krein-Kühle 2002) and the Turkish language (Coşkuna 2011).

The 1976 model of cohesion represents the backbone of textual analysis since it has been regarded as the most comprehensive account of cohesive ties or devices as agreed by Moreno (2003) and Xi (2010). Ghasemi (2013) concludes that performing an analysis of the use of CDs in writing helps to evaluate the quality of writing in terms of coherence and cohesion. Meanwhile, Baker (2011) believes that although there have been some modifications and recommendations for the 1976 model of cohesion, it is still considered the best detailed model of cohesion which is available to linguists, discourse analysts and researchers today. According to Abu-Ayyash and McKenny (2017), Halliday and Hasan's 1976 model of cohesion has never been considered old-fashioned although it was created more than four decades ago. Undoubtedly, it is considered a rare coincidence to find an analysis of cohesive devices which does not apply, refer to or include Halliday and Hasan's 1976 model of cohesion.

Choosing the 1976 model of cohesion as a linguistic analysis instrument to investigate different types of texts and to underpin the present paper has some basic justifications. For instance, Bahaziq (2016) mentions that making a text is strongly dependent on including and utilizing CDs; that is why, these devices can be used as a tool to identify if a grouped sequence of sentences can or cannot be truly called a text as stated by Cook (2010). Moreover, Tanskanen (2006) believes that cohesive devices are heavily responsible for maintaining text unity in that they create a distinction between unified texts and unrelated or disconnected sequence of sentences. Also, Halliday and Hasan concur that cohesive ties are regarded as the sole non-structural part of any text. Consequently, they form the only source for performing textual analysis. Brown and Yule (1983) highlight the importance of using cohesive devices in discourse for decoding, interpreting, and understanding different texts' messages.

2.7.2 Halliday's Theory of Systemic Functional Grammar (SFG)

The choice of the SFG theory to underpin the present paper is valid because the linguistic analysis of CDs is basically originated in SFG theory (Halliday 1978). Systemic Functional Grammar (SFG) or Linguistics (SFL) is a theory that was introduced for the first time by Michael Halliday in the 1960s (Sadighi 2008). The theory is significant because it is considered a radically new approach to study grammar in that it is totally different from the old-fashioned and traditional perspective that a language is perceived as a set of rules which serve certain grammatical structures. Instead, Halliday's SFG theory holds a controversial view to the traditional grammar theories because it regards language as a resource that is responsible for making meaning and that grammar is viewed as a resource for creating meaning through utilization of various wording.

Halliday and Matthiessen (1993) concur that SFG adopts using grammar to construct meaning using systemic grammar which is one category of functional grammars and it is characterized as being natural or motivated by meaning or semantics. Meanwhile, the main focus or concern of the SFG theory is on the function or role of the language (e.g. the different purposes of using language), instead of paying attention to the structure of the language itself or the method by which it is formed (Halliday & Matthiessen 1997). Almurashi (2016) adds that Halliday agrees on the need to describe actual sentences with many functions instead of explaining deep structures. In SFG, Halliday is undeniably keen on employing as well as emphasizing the functions of the sentence or the author's aim for writing the sentence. Likewise, Endarto (2017) states that the main purpose of an individual learning the language is to get the right meaning

across or to communicate with it rather than acknowledge certain grammatical structures or forms. This copes closely with Halliday’s theory of SFG. According to Abu-Ayyash and McKenny (2017), Halliday’s SFG theory is based on five ordering principles or pillars of a language namely structure, system, stratification, instantiation, and meta-function. However, only three pillars including *structure*, *system* and *meta-function* are core to the present study. Thus, they are thoroughly explained in the following sub-section to get more insight into Halliday’s SFG theory and to illustrate how it underpins the current paper.

2.7.2.1 The principle of structure

Structure refers to the sequential or syntagmatic order of linguistic components (Fromkin, Rodman and Hyams 2007). According to the Oxford English Dictionary (2019), a syntagm is defined as a linguistic unit that composes of some linguistic forms such as phonemes, words, or phrases which are in a sequential relationship to one another. Moreover, SFG theory mentions that a syntagm gives very little about meaning as stated by Halliday and Matthiessen (2014). Figure 2 is an example of a syntagm.

<u>Syntagm:</u>	the	famous	novelist	of	Algeria
<u>Grammatical class:</u>	determiner	adjective	noun	preposition	noun
<u>Function:</u>	deictic	post-deictic	person	qualifier	

Figure 2: *An example of a syntagm* adopted from Abu-Ayyash and McKenny (2017)

Based on Figure 2 and according to SFG, a syntagm is significant since it provides what is called an organic configuration regarding the grammatical divisions and functions as well. According to SFG, different layers of a syntagm are arranged based on the relationship of “is part of”; for example, a morpheme is part of a word and a word is part of a phrase. Halliday and Matthiessen (2014) deviate from other grammar theories in that they do not regard structure as the core or heart of linguistic analysis. Instead, they maintain that linguistic analysis has to exceed the sentence level and focus on the system.

2.7.2.2 The principle of system

As per SFG, system is referred to as “the paradigmatic ordering in language” (Halliday and Matthiessen 2014). Also, system is considered the backbone of SFG theory because it is essentially concerned with choices of “what could substitute what” rather than “what could go with what”, which is the basic ordering pattern for structure (Martin 2004). What is more, SFG states that the principle of system is mainly concerned with the choices made in a language

(Halliday and Hasan 1976; Halliday and Matthiessen 2014; Menfredi 2011). According to Gee and Handford (2011), SFG maintains that linguistic analysis must extend beyond the sentence level. Therefore, it includes texts and their evolvement from one clause to another as its main focus for analysis. Bateman (2008) thinks that it is- to some extent- supposed that the majority of linguistic analysis done on the basis of SFG theory has been mainly syntagmatic; however, Martin (2014) agrees that SFG theory necessitates that syntagmatic and paradigmatic relations are significant. In this aspect, Stubbs (2014) says that SFG theory is backed and supported by semantics; therefore, it relates or connects grammar to meaning making which is constituted or formed via many systems and networks of vertical and horizontal relations that co-exist within the different components of texts. All in all, Gee and Handford (2011) conclude that SFG succeeds to differentiate between structure or the sentence level and system that is related to the text level.

2.7.2.3 The principle of stratification

According to Halliday and Hasan (1976), in SFG language is composed of various coding systems which fall into three coding levels or strata. These strata are semantics, lexico-grammar and sounding/writing. Figure 3 illustrates the three strata of language according to the SFG theory, and it is adopted from Halliday and Hasan (1976).

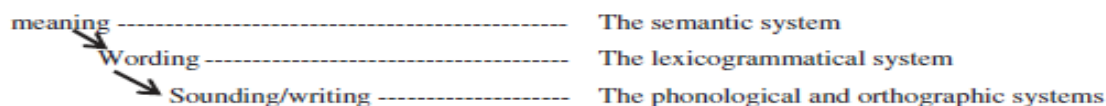


Figure 3: *The three strata of language* as per the SFG theory

2.7.2.4 The principle of instantiation

The principle of instantiation is basically concerned with organization or arrangement of language. According to Halliday and Hasan (2014), SFG highlights the proposition that every text is a reflection or an example of a system that underpins it. For instance, if a reader receives a text that is written in an unfamiliar language to him/her, the text will undeniably be meaningless to the reader because he/she does not have the system that supports such a text.

2.7.2.5 The principle of metafunction

According to Endarto (2017), SFG theory emphasizes three essential language functions. The first one is called ideational and it entails interpreting human experience. Halliday and Hasan (1976) state that the ideational constituent of language expresses content and it is divided into experiential and logical. The second function of language is the interpersonal that represents the

ability of language to communicate social roles and attitudes with people around us as concurred by Bonyadi (2011) and Fowler (2003). The interpersonal function of language can be examined and interpreted in terms of mood, modality, speech acts and interpersonal metaphors. The third language function is called the textual function. In this respect, Halliday and Matthiessen (2014) maintain that the textual function of language is significant since it helps the other two functions create discourse, organize thoughts and, most importantly, establish cohesion using CDs; both lexical and grammatical. In addition, SFG theory splits the textual function of language into structural (syntagmatic) and non-structural (paradigmatic) constituents. According to the SFG, cohesive ties, which are the main focus of the current study, are rooted in the non-structural category of the textual function of language.

Part Two:

2.8 Literature review

A significant number of studies have focused on investigating CDs since the inception of Halliday and Hasan's model of cohesion in 1976. This section of the study reviews in-depth the research practices of the studies performed on CDs and it is split into sub-sections based on the category or genre of the analyzed texts within these studies. In particular, the studies mostly fall into two three main categories; research practices addressing investigation of CDs in school and university students' written discourse are classified as academic texts, whereas studies examining CDs in texts written by politicians (e.g. political speeches), poets (poems), and journalists (newspaper articles) are categorized as non-academic texts. Also, the third sub-section focuses on examining CDs in EFL textbooks although not much research has investigated this area so far.

2.8.1 Cohesive Devices Examined in Written Academic Discourse

According to Abu-Ayyash (2017), the majority of studies that have been performed on investigating CDs in academic context have focused mostly on examining if there is a correlation between the number of CDs employed in students' written essays and the quality of their writing. Ghasemi (2013) concurs that the results of these studies have not reached a specific or definite answer to whether or not there is a relationship between the number of CDs utilized in written texts and the quality of the piece of paper produced.

Therefore, the following part of the literature review compares and contrasts a number of these studies that have reached different conclusions regarding the use of CDs in academic essays and compositions.

Crossley and McNamara (2010) conduct a study to examine expert ratings of different text features including coherence and cohesion in order to determine their relations with holistic essay quality. The authors are mainly interested in identifying the role that cohesion and coherence play in essay writing quality. The experts have investigated 184 argumentative essays written by college undergraduate students in a qualitative study design. In order to achieve reliability of the study and to validate the findings, Crossley and McNamara (2010) have employed some tools for textual analysis including expert ratings, Pearson correlation analysis and the Coh-Metrix, which is an automated analysis tool. The findings have demonstrated that coherence is considered a significant aspect or attribute to the writing quality. Also, the study has found that coherence is not necessarily achieved through the use of CDs, and expert raters have evaluated coherence based on the absence of cohesive ties rather than their presence. Furthermore, expert raters have ranked essays of higher quality and proficiency if they are hard to process e.g. (when essays include less common lexis and more complicated syntax). Similarly, (Collins, 1998; DeVillez, 2003) share the same results as Crossley and McNamara (2010) in that they consider the quality of essay writing is strongly dependent on achieving coherence and cohesion in written discourse.

In contrast to the results reached by Crossley and McNamara (2010), Liu and Braine (2005) have established a correlation between the frequency of CDs and the quality of writing. Liu and Braine (2005) examine 50 argumentative compositions written by Chinese undergraduate non-English majors. Their findings show that LCDs represent the largest percentage among all CDs utilized whereas conjunctions are the least common category. While the study of Liu and Braine (2005) has revealed that the writing quality correlates substantially with the frequency of CDs used, Abu-Ayyash (2017) agrees that their findings could be strongly validated and considered more reliable if they implement other tools of analysis like Yang and Sun (2012) who employ the *t*-tests to show that the observed difference between the two sample groups is statistically important and is not a coincidence. By and large, Yan and Sun (2012) reach the same results achieved by Liu and Braine (2005) in that they agree that there is a link between the quality of argumentative essay writing and the number of CDs used. Similar to the studies of (Liu & Braine 2005) and (Yan & Sun 2012) is a study conducted by Abdul Rahman (2013) in which he concurs

that CDs are proved to be determiners and predictors of the quality of academic written discourse for college students across proficiency levels.

Compared to the findings of Liu and Braine (2005) and in harmony with the results of Crossley and McNamara (2010), Johnson (1992) has found that there is no significant difference between the number of CDs used and the overall quality of essays among a number of three groups; 20 Malay students writing in Malay, 20 English native speakers writing in English, and 20 Malay students writing in L2 English. The three groups of students write different essay types such as descriptive, argumentative and persuasive, and Johnson (1992) has employed the t-test procedure to determine if there is a link between CDs and the writing quality. The findings of the study show that Malay essays rated as “good” include more semantic CDs e.g. collocation and repetition, whereas English essays written by native speakers ranked as “good” utilized more syntactic ties (Alarcon and Morales, 2011). A similar study to Johnson’s (1992) is conducted by Meisuo (2000) which examined qualitatively the correlation between CDs and the writing quality in Chinese undergraduates’ expository essays. Although both studies have similar findings that there is no significant correlation between the frequency of CDs and the writing quality, Meisuo’s (2000) study is more reliable since he employs quantitative analysis of a number of features including errors, misuse and overuse of CDs.

Alarcon and Morales (2011) have explored three research questions that address the frequency of usage of CDs, the correlation between CDs and the writing quality and the common types of devices used in 64 argumentative essays written by Filipino students. The study uses Halliday and Hassan’s (1976) taxonomy of grammatical cohesion only, and the authors fail to illustrate why LCDs are excluded in the study. The study implements the mixed-methods approach to ensure reliability and validity of the results. Using Pearson’s correlation, Alarcon and Morales (2011) find no correlation between cohesion and the writing quality of essays. This result is harmonious with many other findings such as Crossley and McNamara (2010), Johnson (1992) and Meisuo (2000). In contrast to the qualitative results of Liu and Braine (2005) that demonstrate the dominance of lexical cohesion among other types of CDs, Alarcon and Morales (2011) find that reference is the most commonly utilized CD and there are no instances of ellipsis.

Zhang (2010) studies the correlation between cohesion and the writing quality for a number of 91 college non-English major candidates in a Chinese university who take part in National Entrance Test of English. The study employs Halliday and Hasan’s (1976/2001) taxonomy of

cohesion. Based on the quantitative analysis of the study, the scores of the writing compositions correlate significantly with the total number of CDs used. This aligns closely with Liu and Braine's (2005) findings; yet, it is controversial with most of the previously explained studies that find no significance correlation between cohesion and the quality of writing. In addition, Zhang (2010) reports other findings that are similar to Liu and Braine (2005). For example, both studies state that LCDs are the most frequently employed in students' writing. Conversely, unlike Liu and Brain's (2005) study that fails to ensure the validity and reliability of their research since

they do not include instrument analysis such as the t-tests and Pearson correlation tools, Zhang (2010) maintains validity and reliability of the study by inclusion of t-tests and Pearson correlation instruments.

According to Zhang (2010), no general consent has been reached on the correlation between the frequency of cohesion and the quality of written discourse. Additionally, while some studies report a significant link between the number of ties and the quality of writing including Liu and Braine (2005), Norment (1994), Meihua and Weirong (2002) and Grant and Ginther (2000), other studies find no difference in terms of cohesive density in well and poorly rated written texts or essays such as Castro (2004) and Xu (1999). Chanyoo (2018) explains that there is no particular agreement on a definite answer to the question of whether there is a correlation between the frequency of CDs and the writing quality since most of the studies that report positive and negative findings as well are conducted on different essay types including the descriptive, argumentative, expository and explanatory essays. Therefore, it is difficult to attribute the disagreement among researchers to the text type.

Coskun (2011) shares the same findings as those found by Alarcon and Morales (2011) in that the use of CDs is not essentially a good predictor of the quality of writing. However, the results of both studies seem different in the aspect that EFL Turkish and Uzbek learners show a high frequency of GCDs e.g. ellipsis than usage of LCDs that are employed immensely with a higher rate in the previous studies (e.g. Liu & Braine, 2005). Compared to Coskun (2011), Alarcon and Morales (2011) report that there are no examples of ellipsis and the majority of devices used by students are reference and conjunctions.

Not only do Liu and Braine (2005) and Yang and Sun (2012) find a positive correlation between the number of CDs used and the writing quality, but also Chanyoo (2018) does in his study investigating the relationship between cohesion and the academic writing quality of

thirty Thai undergraduate students majoring in English. Similar to most of the previous studies, Chanyoo (2018) adopts Halliday and Hasan's (1976) taxonomy as the framework for analysis in a quantitative study design. Like the majority of other studies in the field, Chanyoo (2018) uses some tools to ensure the reliability of the results including a holistic essay rubric developed by (Hogue and Oshima 2007) and Pearson correlation tool. On the contrary, Chanyoo (2018) fails to use an automated tool to calculate the number of cohesive ties found such as the Coh-Matrix, which is known to provide precise indices for the features of texts on different levels of analysis (McNamara, Crossley & Roscoe, 2013). Instead, manual annotation is used to identify CDs in students' written essays. Therefore, the validity of the results is not assured since there is a possibility of creating errors while counting the ties. What is more, the findings of the study align closely and are harmonious with those reached by Liu and Braine (2005) in terms of the dominance of lexical ties

among other types of devices found in students' academic essays. Chanyoo (2018) reports that reiteration (including synonyms, hyponyms, antonyms, meronyms and repetition) is the most frequently used type of cohesion followed by reference, conjunction and ellipsis.

A recent study conducted by Mohamed and Mudawi (2015) supports the previous studies in that it identifies a positive link between the quality of writing development and usage of CDs in written discourse. The study is performed on 100 first-year college students majoring in English in a quantitative study design. The researchers use a questionnaire as well as an experimental group design including pre-test and post-test to collect data. Looking deeply at the formation of the questionnaire's points will definitely result in doubting the validity and reliability of the results. For example, the questionnaire includes irrelevant questions to the study focus such as "handwriting tasks inside the classroom affect positively the students' writing skills". This is not related to the use of cohesion in writing as the concept of handwriting is too broad. Another pitfall of this study is the ambiguity of the type of CDs used in the controlled group and the experimental group as well. The researchers do not illustrate or provide which CDs are being studied and tested by the students or the sample of the study. In addition, the study lacks introducing how the essays are graded and rated to ensure the validity and reliability of the results reached by the researchers.

A different study of Alarcon (2013) focuses on examining lexical cohesion in argumentative writing of 148 Filipino college students. Although the study resembles most of the previous studies in adopting Halliday and Hasan's (1976) taxonomy as the framework of analysis, using

the mixed methods approach, employing independent raters and using frequency count tools of analysis; the findings are similar to many other studies which agree that the number of CDs is still not a reliable measure of the writing quality. Significantly different from other studies that incorporate both types of cohesion, Alarcon (2013) investigates lexical cohesion alone.

Zhou and Dai (2016) examine the empirical studies conducted on the correlation between lexical knowledge and English proficiency of Chinese EFL learners in Mainland China during the past 20 years. The study includes a number of 25 papers chosen from one of the largest databases in China, which is China National Knowledge Infrastructure (CNKI). The findings demonstrate that there is a positive correlation between learners' lexical knowledge and the level of English achievement or proficiency; yet, the impact differs according to the different levels of English achievement. Liu et al. (2009) conducts a similar study to Zhou and Dai (2016). Although the former specifies only one aspect of English proficiency or development in the research, which is the writing skill, the latter investigates the correlation

between lexical knowledge and English proficiency levels in all skills; writing, reading, listening, and speaking. Moreover, Liu et al. (2009) analyzes a corpus of 67 engineering students' composition to examine if the lexical awareness as well as lexical faults would impact the writing quality. The findings of Liu et al. (2009) and Zhou and Dai (2016) are the same as both confirm that there is a link between vocabulary knowledge and English development. In contradiction with these two studies, Crossley and McNamara (2010) conclude that high proficiency L2 English writers do not necessarily prove to be more cohesive. Instead, they produce more sophisticated written essays than cohesive ones, which are considered due to a "reverse cohesion effect" whereby there is a contradictory or reverse link between the writer's proficiency and cohesion as stated by Kwan and Yunus (2014). Another study achieved by Ahmed (2010) shows a compliance with the previous studies by (Zhou and Dai, 2016; Liu et al, 2009). Ahmed (2010) concludes that the low English proficiency level of the students participating in the study leads to non-cohesive writing. Thus, the findings maintain that the employment of cohesive ties affects the learners' proficiency level as well as the quality of their written essays.

Castro (2004) includes two research questions in his study about cohesion and the social construction of meaning in the essay writing of 30 Filipino, first-year college students. One of the questions examine if there is a significant difference in the number of grammatical and lexical CDs in L2 English essays that are rated of low, mid, and high quality. The results of

the study indicate no significant difference in the frequency and category of grammatical and lexical CDs in the low, mid and highly rated essays. Undoubtedly, the findings of Castro (2004) align with a number of previous studies that have analyzed the link between cohesive ties utilization and the writing quality including (Chen, 2008; Johnson, 1992). Similarly, Xuefan (2007) reaches the same conclusions as Castro (2004) since they admit no correlation between the frequency of CDs implemented in essay writing and the quality of the piece of writing produced although the former performs his study on two different text types; narration and argumentation. In addition, Xuefan (2007) states that lexical cohesion, particularly repetition, represents the dominant category in Chinese college EFL writers. Dastjerdi and Samian (2011) are in harmony with Castro (2004) and Xuefan (2007) where there is no correlation between the frequency of cohesion and the writing quality although they conduct their study in a different context (Iranian EFL learners).

2.8.2 Cohesive Devices Examined in EFL Textbooks

Quite a significant number of previous studies focus on investigating EFL learners' inability to understand the reading texts available in English books in terms of the concepts of cohesion and coherence including Oroji and Ghane (2014). The research includes three high schools in Iran and the total number of units examined is six. The study incorporates all five cohesive categories namely reference, substitution,

ellipsis, conjunctions and LCDs as identified by Halliday and Hasan's (1976) model of cohesion. The findings of the study show that grammatical cohesion is the most frequently used, particularly reference and conjunctions. However, lexical cohesion is the least frequently utilized category of cohesion in all six units. Although Oroji and Ghane (2014) provide a recent study, their research does not build on previous studies of literature ,and more importantly, they do not include textual analysis tools to ensure the validity and reliability of the findings given. Additionally, Oroji and Ghane (2014) fail to justify why they adopt textual cohesion and coherence as the only instrument that is responsible for misunderstanding English reading texts since there are various reasons that could support L2 learners' inability to comprehend English reading texts such as lexical knowledge, cultural awareness and syntax sophistication.

Cho and Shin (2014) present the same findings as Oroji and Ghane (2014) although the former focuses on the context of English Writing textbooks whereas the latter includes English reading textbooks only. Even though the study of Cho and Shin (2014) includes only 3 English writing textbooks, the findings align significantly with those of Oroji and Ghane (2014) since both find

that these textbooks do not cover a full range of cohesive devices that are required either for understanding English reading texts or for improving L2 learners' writing quality. Similarly, both studies report that LCDs are rarely covered in these books. Moreover, these studies build on Halliday and Hasan's (1976) taxonomy as the analytical framework. Unlike Oroji and Ghane (2014), Cho and Shin (2014) build their study on a solid review of past studies and they determine the names and authors of the three writing textbooks, which assist in creating authenticity of the research. The following sub-section provides a set of research reviews that have used cohesive devices in non-academic text categories.

2.8.3 Cohesive Devices Examined in Non-Academic Written Discourse

Although the present study focuses on investigating LCDs in an academic context, the following subsection (2.8.3), is significant in terms of analyzing and discussing the findings of the study as explained in chapter four.

Among the studies that have been conducted regarding cohesion in non-academic texts is Ghasemi, Mohammadi and Tabari (2014) that investigates LCDs utilized in articles of clinical psychology in English and Persian. Although the focus of the study is on lexical cohesion, the researchers do not include "meronymy", which is a basic category of lexical cohesion according to Halliday and Hasan's (1976) taxonomy while analyzing the frequency of occurrence of each LCDs. The study has a number of drawbacks such as the inclusion of old literature reviews while referring back to previous studies. The most recent study included in the review of literature is conducted by Gutwinski (2007), which leaves a

gap of 7 years of literature not covered. Additionally, the purpose of the study is to investigate the frequency of occurrence of LCDs in articles of clinical psychology, which is merely descriptive, and it has no other significant benefits to research. Therefore, the contribution of this paper to research remains questionable.

Sharif (2015) conducts a similar study to Ghasemi, Mohammadi and Tabari (2014), in which he adopts a purpose of his study to analyze and investigate LCDs in psychological research articles. Therefore, both of them share the same area of research, which is psychology. Different from the study of Ghasemi, Mohammadi and Tabari (2014), Sharif (2015) addresses a set of seven cohesive ties namely; *listing/enumeration and adverbs; contrast and comparison; listing; reinforcement and addition; giving reasons, connective, giving examples, highlighting; listing/enumeration and adverbs; result/consequence/summary*. Although Sharif

(2015) builds his study on the previously mentioned seven sets of devices, it is hard to consider them as CDs according to Halliday and Hasan's (1976) taxonomy. In harmony with Ghasemi, Mohammadi and Tabari (2014), Sharif's (2015) study merely lists examples of the previously mentioned sets found in the studied papers. For example, he mentions in his analysis of the first paper that *in addition*, *further*, and *also* are recognized as the most frequently occurring items for *reinforcement/ addition*, which is just descriptive (listing) without going further in his research beyond the normal functions of these items. As a result, the addition of Sharif's (2015) study to literature so far done on CDs is still questionable.

Yayh (2006) sets the purpose of the study as to "briefly give information about cohesion and analyze the types of CDs in "Holy Thursday" poems in Songs of Innocence and in Songs of Experience by William Blake (1992)" (p. 437). According to Abu- Ayyash (2017), the absence of the literature review section, which sheds the light on similar previous studies made on CDs, makes it difficult to consider or identify the addition and contribution of this research paper to literature. Moreover, Yayh (2006) makes a recommendation in the conclusion of the paper that " language teachers should place more importance to text cohesion in their teaching and evaluation of writing" (p. 447). This claim, however, does not link with the purpose of the study nor does it include students as a sample for the population. Therefore, this recommendation seems odd to the main focus of the research paper.

Another study is conducted by Yeibo (2012) to examine aspects of textual cohesion created by CDs; particularly in terms of ellipsis, reference and conjunctions in the poems of J.P Clark-Bekederemo. One of the advantages of this study is the inclusion of a detailed account of the targeted CDs (reference, conjunctions and ellipsis) with supportive examples. In addition, a solid explanation of the theoretical

framework underpinning the study (e.g. SFG theory by Halliday) is another plus for the study. On the contrary, the study fails to include a review of literature that focuses on previous studies conducted on the same topic; thus, Yeibo's (2012) study shares this drawback with various studies in which their contribution to the literature is not assured or questionable.

A number of studies have looked thoroughly into examining CDs in political discourse including Chitulu and Enyi's (2015) study that focuses on investigating the use of LCDs to create cohesion in Nigeria's president Goodluck Jonathan's Inaugural Address in May 2011. The study is guided by the theoretical postulations of Halliday's tripartite meta-functions of language; the ideational,

the interpersonal and the textual with more attention paid to textual quality. The study goes in harmony with many of the previous studies that do not go beyond the surface level of a mere description or listing of examples of CDs in the examined speech. Rather than addressing the aim of the study, the researchers focus on listing examples of lexical ties with little attention given to the main purpose of the study. Additionally, the literature review part of the study is very short, and it includes old studies since the most recent one is conducted by Adetunji (2009). Therefore, the significant contribution of Chitulu and Enyi's (2015) study can hardly be achieved due to this pitfall. By contrast, a plus of the study is the inclusion of a theoretical framework that underpins the study as well as a detailed illustration of the LCDs included in the study.

Compared to the previous study, Prados (2012) challenges the concept of the "merely listing of examples" in which he goes beyond the surface in order to study the different patterns that CDs create aside from their persuasive role in a number of 3 political speeches. Upon applying Halliday and Hasan's (1976) along with de Beaugrande and Dressler's (1981) taxonomies, the study succeeds in reaching the conclusion that cohesive ties serve multiple functions including creating and maintaining texture, stressing and emphasizing thoughts and involving the audience of such speeches to think deeply of the speaker's meaning. For this reason, including Halliday and Hasan's taxonomy as well as its adjusted one is purposeful and advantageous since there are various adaptations to Halliday and Hasan's (1976) model of cohesion (e.g. de Beaugrande and Dressler, 1981) and which hold a lot of criticism to it (e.g. Brown and Yule, 1983).

In the world of law, Ambi (2016) examines the use of reference, substitution, ellipsis, conjunctions and lexical devices in twenty legal documents written by lawyers taken from the High Court of Justice in Nigeria. Although the study includes a detailed account of all CDs examined in the legal documents, the study entails no review of previous literature. Therefore, the significance of the study's addition and contribution to literature is not achieved. The study employs Halliday and Hasan's (1976) model of cohesion as the framework for analysis just like most of other studies conducted on cohesion and coherence. In fact,

Ambi's (2016) study is considered a descriptive paper that lists the number of CDs used in the targeted documents without adding any other benefit to literature. In this aspect, the study resembles many other studies conducted on CDs with no purpose at all e.g. (Ghasemi, Mohammadi and Tabari, 2014; Sharif, 2015; Yeibo, 2012).

In a different research in the context of media discourse, Gonzalez (2011) examines the differences between associative cohesion and lexical collocation in a number of fourteen oral interactions; 7 broadcast discussions and 7 phone calls. The results of the study demonstrate that the frequency of lexical cohesion is far higher in broadcast discussions than it is in phone calls. In addition, the qualitative analysis of the study asserts the functionality of lexical cohesion in terms of developing and strengthening turn-taking behaviors as well as the organizational patterns in these two different genres of conversation.

Moini and Kheirkhah (2016) enrich the field of literature by conducting a study to compare and contrast the use of CDs, specifically (reiteration and collocation) and conjunctions (elaboration, extension and enhancement) in children and regular or adult literature. In order to achieve this purpose, the researchers use two very popular novels in English literature; the child novel is *Dany the champion of the world* by Roald Dahl, while the adult novel is *Coming up for air* by George Orwell. A valuable plus for the study is that it builds on a solid literature of previous studies in order to identify a gap.. Another advantageous feature of the study is the adaptation of Halliday and Hasan's (1976) taxonomy as well as the adjusted model made by Tanskanen (2006). The significance of including Tanskanen's (2006) model is that it has been developed to "analyze cohesion in different text types" (p. 15). The study employs the mixed methods approach to ensure validity and reliability of the findings. The results report that simple repetition, substitution and equivalence are the most frequently employed categories in both novels by both children and adults.

Conducting an important study on the role that CDs, theme and rhyme play in consolidating the arguments of Krauthammer's *Free-lunch Egalitarianism*, Abu-Ayyash (2013) basically goes beyond the surface level in order to achieve the purpose of the study. The study adopts the qualitative design of research and it employs Halliday and Hasan's (1976) model of cohesion to analyze the selected editorial. A plus of the study is the inclusion of a strong conceptual framework which explains the items included in the study with solid examples. Afterall, Abu-Ayyash (2013) manages to achieve the purpose of the study through the use of descriptive statistics. According to Abu-Ayyash (2013), "the CDs, including reference, substitution, ellipsis, conjunction and lexical ties, have been found to play a primary role in consolidating the argument of the article under discussion" (P. 248).

By and large, after reading the previous review of literature, the researcher has identified the lack of similar studies on writing a critical review essay, which has not been investigated so far. Instead, numerous previous studies examined LCDs in other essay types. Also, there are not similar studies conducted in the United Arab Emirates, particularly in Sharjah city where the researcher has decided to conduct the current paper. A very significant point that has not been addressed by most previous studies, and which is a major part of the present paper, is the current paper's inclusion of the mixed-methods approach where the qualitative part of the study is conducted to interview participants and teachers to get an in-depth understanding of the difficulties and challenges that they encounter with LCDs. This will assist the researcher in validating and assuring the reliability of the findings because the majority of previous studies have focused more on conducting quantitative studies using students' essays; therefore, ignoring identification of the challenges and obstacles that they encounter while dealing with LCDs in their essay writing.

CHAPTER THREE

METHODOLOGY

The methodology of the current study comprises the theoretical analysis of the principles and the body of methods that are related to this study (Igwenagu, 2016; Mackey & Gass, 2015). Moreover, Igwenagu (2016) states that the research methodology is a set of systematic methods or techniques used as a guidance of how the research is conducted. The following section is a discussion of the research design including data collection techniques, which are used to collect data in the present paper. It also comprises the framework that is employed for data analysis, the corpus, the writing prompt, ethical considerations, and the research methods or approaches that are adopted by the researcher to put out the findings from the study.

3.1 Research methods

In order to answer the three research questions established in chapter one of the present study, the researcher has used the mixed-methods approach which entails both quantitative and qualitative research methods that serve to achieve the purpose of the research paper. Creswell and Clark (2007) concur that the researcher might employ both quantitative and qualitative methods in a single study while collecting and analyzing data in order to deeply investigate and understand the research problem. In addition, combining quantitative and qualitative methods provides a better interpretation of the research problem under investigation than using either approach alone (Creswell, 2008). Meanwhile, “mixed methods research is necessary to address both the “what” (numerical and qualitative data) and “how or why” (qualitative) sorts of research questions” (Cohen, Morrison & Manion, 2011, p. 25). The following sub-sections (3.1.1 and 3.1.2) further explain the rationale for selecting the mixed-methods approach in the current study.

3.1.1 Quantitative research methods

Creswell (2009) states that through the adaptation of a quantitative research approach, the researcher employs some techniques of inquiry such as questionnaires and experiments in order to collect data on predetermined tools of analysis that produce statistical or numerical data. Additionally, adopting a quantitative research method maintains examining the relationship among different variables, which are measured through instruments so that the numbered data produced can be used and analyzed using statistical procedures. To achieve the purpose of the current study and, in particular, in order to answer the first two research

questions, the researcher has implemented the quantitative research approach. To answer the first research question of this paper, the researcher has used the quantitative descriptive

statistics approach to analyze the frequency of each category of LCDs included in the present study. However, the quantitative correlational statistics approach has been employed by the researcher in order to answer the second research question where the researcher investigates the overall correlation between the total number of LCDs used and the quality of writing produced by grade 9 learners (Creswell, 2012). What is more, Apuke (2017) agrees that a correlational research or study investigates the different features (characteristics) and variables of two or more entities.

3.1.2 Qualitative research methods

According to Taylor, Bogdan and De Vault (2015), when it comes to a qualitative research method, it does not require mathematical techniques at the time when the researcher analyzes the data. Also, Danzin and Lincoln (2000) agree that qualitative research methods are significant since they assist researchers to investigate and study things in their natural environment while trying to understand or interpret a phenomena. In addition, the data produced through the implementation of a qualitative research is valued because it represents a reliable perspective of the social atmosphere which suggests that “categories/representations produced through research are socially and historically located and subject to change” (Dunne, Pryor, & Yates, 2005, p. 50).

To achieve the purpose of the current study, especially in order to answer the third research question, a descriptive qualitative research method has been used. The third research question of the current study investigates the difficulties that grade 9 students at an American school in Sharjah city encounter in dealing with lexical cohesion in writing from the perspectives of both teachers and learners. Therefore, the researcher has used the qualitative descriptive approach of research in order to answer this research question. The researcher has utilized semi-structured interviews of students and teachers who teach grade 9 at school to further investigate this area of research. Four English teachers were interviewed to deeply examine the hardships encountered by L2 learners, whom they teach, in terms of lexical cohesion and its implementation in academic writing. In the same context, the researcher has selected 15 students, who scored differently in the academic writing task under investigation to interview regarding the use of LCDs in their writing. The chosen participants to interview were selected using criteria-based sampling to represent the three main proficiency levels based on

categorizing their final writing mark; the high, medium and low proficiency levels according to the School Inspection Supplement Document issued by the Dubai Inspection Bureau in 2018 and which focusses on students' attainment of all subjects. Accordingly, students who scored below 6 out of 10 were regarded as low, students who were between 6 and 7.5 out of 10 were classified as average, and students who were above 7.5 were rated as above level.

Semi-structured interviews allow interviewees the flexibility and freedom to express their views in their own words using questions that do not have a fixed set of answer (open-ended questions). As a result, semi-structured interviews can provide reliable, comparable qualitative data. Undeniably, semi-structured interviews assist the researcher to further investigate and explore the complexity of the topic under investigation (Glesne, 2015). A summary of the research methods and instruments that are used in the current paper is provided in Table 2.

Research Questions	Approach	Participants	Instrument
(1) What is the frequency of each type of lexical cohesive device in grade 9 learners' writing a critical review essay?	Quantitative descriptive statistics approach	57-grade 9 students at an American school in Sharjah, UAE.	Manual annotation + Coh-Metrix.
(2) What is the overall correlation between the total number of lexical cohesive devices used and grade 9 learners' grade in writing a critical review essay?	Quantitative correlational statistics approach	57-grade 9 students at an American school in Sharjah, UAE.	Pearson correlation coefficient.
(3) What are the difficulties that grade 9 students at an American school in Sharjah city encounter in dealing with lexical cohesion in writing from the perspectives of both teachers and learners?	Qualitative descriptive approach	4 English teachers and 15 grade 9 students at an American school in Sharjah, UAE	Semi-structured interviews (open-ended questions).

Table 2: *A summary of the research methods and instruments of the study*

3.2 Framework for analysis

Because it is the most comprehensive model of cohesion and due to its popularity in studies investigating CDs since its inception, Halliday and Hasan's (1976) model of cohesion was selected as the framework of analysis for the present study. In particular, the researcher has

essentially focused on LCDs in Halliday and Hasan's (1976) taxonomy including *repetition*, *hyponymy*, *meronymy*, *synonymy*, *antonymy* and *collocation*.

3.3 Data collection and corpus

The corpus used in this study comprises 57 critical review essays (n=57) written by grade 9 students at an American school in Sharjah city, UAE. However, one critical review essay was excluded from the present study since it was written by SEN student and it did not include the same criteria set for the other learners.

Consequently, the final sample data were collected from 56 essays (n=56) written by grade nine L2 learners (32 female students and 24 male students). Students came from different nationalities, but they were mostly Arab learners who were studying English as part of the ELA course requirements at school. What is more, the remaining data were collected from the semi-structured interviews of 4 English teachers and 15 grade 9 students.

3.4 The writing prompt

The students were asked to write a critical review essay of five paragraphs of 350 words in a 90-minutes exam session in which they critically reviewed either a poem or a short story that they had studied as part of their English course in term III of the academic year 2018-2019. The essay instruction was "Write a critical review essay of one work of literature that you have studied (either Edgar Allan Poe's poem ,*The Raven* or Tim O'Brien's story, *Where Have You Gone, Charming Billy*?) using the conventions of academic writing in which you include a summary of the work, points of strength and weakness". The students were asked to write drafts of their paper and the final essays were submitted to the teacher and, thereafter, analyzed for the purpose of the current study.

3.5 Procedure and research instruments

Firstly, the written essays were graded using a 10-points scale holistic rubric generated by Holt McDougal online software, which is the online curriculum resource tool for learners of English at school (see Appendix C), and it is one of the writing assessment rubrics at the school where the study is conducted. The rubric contained the following criteria:

- *Organization* (4 points)
- *Elements of critical review* (3 points)
- *Grammar, usage, mechanics and spelling* (3 points)

The sample essays were collected and scored by four English teachers, who taught grade 9 students at school. They had solid experience in teaching and assessing writing for at least 8 years. The inter-raters had almost perfect agreement as identified by the Cronbach Alpha which is 0.805. Furthermore, SPSS was used to calculate inter-raters' consistency that was proved to be 0.94; thus, it represented a high consistency among the four graders. All writing samples of the study were then typed into word documents following exactly what the students had written without correcting errors. Secondly, a manual annotation was done by the researcher to calculate the frequency of the six targeted lexical cohesion categories in students' writing. However, the Coh-Matrix, which is an automated analysis tool, was used to confirm the reliability of the frequency of occurrence of each LCD found in the corpus. Additionally, Pearson Correlation

Coefficient was used to identify the link between the total number of cohesive devices and the quality of students' writing as reflected by the scores given by the graders.

3.6 Ethical considerations

Prior to starting the present study, the researcher obtained informed consent forms of all participants of the study after informing them of the objectives and importance of the study. They were informed that their names would not be used; therefore, anonymity and confidentiality were assured. Additionally, they were told that they had the right to withdraw at any time without providing justifications. A written consent form was obtained from the school principal and the Head of English Department upon informing them of the rationale and significance of the present study.

CHAPTER FOUR

FINDINGS and DISCUSSION

The purpose of this chapter is to present the findings and discussion of the results according to the research questions. This chapter is divided into two sections; the first section (4.1) is dedicated to illustrating and discussing the quantitative findings, whereas the second section (4.2) basically addresses the qualitative findings and discussions.

4.1 Quantitative findings and discussion

This part will provide the data results that constitute the answer to the quantitative research questions 1 and 2. The first research question examines the frequency of occurrence of each type of LCD identified in a critical review essay written by grade 9 L2 learners, who represent the sample of the current research paper. Therefore, Table 3 presents the overall frequency of LCDs.

	Repetition	Synonyms	Antonyms	Hyponyms	Meronyms	Collocations	Total
Total	5394	808	662	114	445	2073	9451
%	% 57.07	% 8.54	% 7.00	% 1.20	% 4.70	% 21.93	% 100

Table 3: The overall frequency of LCDs in L2 students' essay writing

It can be noticed that repetition was the most frequently used lexical cohesive device among all six categories at 57.07 %, which was followed by collocations at 21.93 %. It is clearly seen that the figures of repetition were triple times more than those of collocations. The other four lexical cohesive devices constituted almost 20 % of the total LCDs used. To illustrate, synonyms represented 8.54 % and antonyms occupied 7.00 % of the LCDs used. However, the lowest figures of LCDs in grade 9 learners' essay writing belonged to meronyms and hyponyms at 4.70 % and 1.20 % respectively. These findings were similar to those of (Castro, 2004, Chen & Yu, 2002; Chen, 2008; Khalil, 1990; Mojica, 2006; Zhang, 2005; Zhou, 2007). Chart 1 shows the overall distribution of the frequency of LCDs identified in L2 learners' writing.

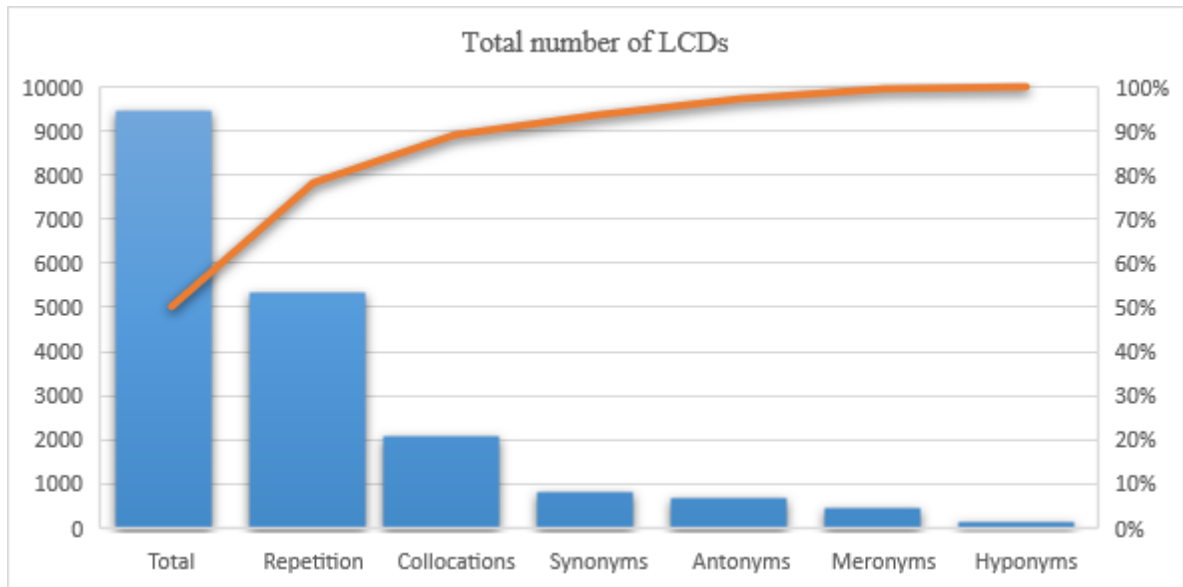


Chart 1: The distribution of overall frequency of LCDs in L2 learners' essay writing

Table 3 and Chart 1 are significant indicators that L2 learners used quite an immense number of LCDs in order to achieve coherence while writing the critical review essay by reaching a total number of (9451) LCDs in all 56 essays. This indicated that L2 learners were aware of LCDs and their importance in terms of achieving cohesion and coherence in essay writing. However, it seemed that they were incapable of employing all six categories of LCDs in their essays equally as it was evident in their high rate of using repetition and collocations compared to antonyms, meronyms, hyponyms and synonyms, which represented only 20 % of the overall LCDs used.

A possible interpretation of these results reveals that learners encountered a difficulty understanding and employing a number of LCDs in their essays, particularly hyponyms, meronyms, antonyms and synonyms. Consequently, this is considered the main reason behind conducting the qualitative descriptive part of the study using semi-structured interviews so that the researcher can obtain an in-depth understanding of what and why participants of the current study find difficult in terms of applying LCDs in their writing. Additionally, it adds to the validity and reliability of the quantitative results obtained using the descriptive statistics and the correlational statistics. These quantitative findings are in harmony with a number of previous studies that reported repetition and collocation as the most dominant LCDs, such as (Chanyoo, 2018; Johnson, 2007; Moini & Kheirkhah, 2016; Xuefan, 2007). The following subsections give a detailed analysis of the six categories of LCDs targeted in this study, and how they were identified in the participants' essay writing.

4.1.1 Repetition

Repetition		
N	Valid	56
	Missing	0
Mean		95.5179
Mode		80.00 ^a
Std. Deviation		31.87931
Minimum		29.00
Maximum		165.00
Sum		5349.00

Table 4: The frequency of repetition in students' essays

According to the data shown in the Table 4, repetition represented the most frequently occurring LCD in all students' written essays. The minimum number of repeated lexis was 29 and the maximum number was 165 words per essay. Example 1 shows repetition in one of the essays:

Example 1:

"Being brave is not the absence of fear. Being brave is having that fear and finding a way through it". All people have fears, even though they might vary. No matter how frivolous the fear might look to you, it can still be horrific to some others. That is why fears have different forms and various ways they can be dealt with.

Within these three lines the student repeated "Being brave" twice, while "fear" was repeated 5 times. This reflects the dominance of repetition as a LCD for G9 L2 learners. Although, the participants are introduced to academic vocabulary of 50 words and above each semester, repetition reflects the limited amount of lexis for students as they preferred repeating words and phrases more than once instead of using synonyms, antonyms, meronyms and hyponyms in order to achieve coherence on the essay level. Kafes (2012) averred that over-repetition of some lexis created a monotonous and an unpleasant tone such as over-repetition of the word "fear" in Example 1. Another example of the negative impact of over-repetition is that the majority of participants repeated the title of the story, "Where have you gone, charming Billy?" that they were critically evaluating at least three times in a single essay.

Kafes (2012) stated that repetition was the most dominant LCD in essay writing in English and Turkish languages as well. These results were in harmony with the findings of Chaalal (2017) who confirmed the same findings in the Arabic language and its equivalent translated English texts of some legal documents related to the UN. Particularly, he mentioned that Arabic and English legal texts tended to favor lexical repetition in order to maintain the highest standards of accuracy and to avoid ambiguity. These results

were in contradiction with those reached by Abdulrahman (2013), in which he mentioned that the overuse of certain cohesive devices including repetition did not mean that the students were better at using cohesive devices to achieve cohesion; instead, this caused their writing to be more redundant and even hard to decipher. In the same context, Moini and Kheirkhah (2016) had similar findings to the present paper in which they identified repetition as the most dominant LCD while comparing two well-known children and adult novels in the field of literature. Unlike this paper's results, they did not find out misuse of repetition in both novels. The results were also aligned with Hellalet (2013) in which he considered over-use of repetition as an issue for English language learners. He further stated that over-repetition was the impact of the learners' mother tongue, which is the Arabic language that depends heavily on rhetoric.

4.1.2 Collocations

Statistics		
Collocations		
N	Valid	56
	Missing	0
Mean		37.0179
Mode		34.00
Std. Deviation		13.93555
Minimum		9.00
Maximum		77.00
Sum		2073.00

Table 5: The frequency of collocation in L2 learners' essays

Collocation was the second frequently used LCD in students' writing at a total number of (2073) in all essays. The minimum number of collocations used was 9, whereas the maximum number was 77 per essay. The mean was 37 and the mode was 34. Although it was the second dominant category of LCDs, it was way too below the frequency of using repetition. Example 2 illustrates the students' use of collocations in their essays:

Example 2:

Where have you gone, charming Billy? is a short story by Tim O'Brien which takes place during the Vietnam war.....sent out to Vietnam including the author.....Tim O'Brien's main idea is facing fear in different ways and having courage to accomplish tasks that are given.....the soldier started to cry heavily...but in this story it focuses on something that is really important.

Example 2 illustrates how the participant used different chains of collocational cohesion to achieve coherence in the essay. He/ She used collocations of adjectives and nouns such as “short story”, “main

idea” and “different ways”. Also, the participant used collocations of verbs and nouns such as “sent out to Vietnam” and “accomplish tasks”. An example of collocations using verb and adverb is “cry heavily”, and another example of collocation using adverb and adjective is “really important”. Using these collocations, the participant created coherence on the essay level. According to Halliday and Hasan's (1976) model of cohesion, using collocations helps to achieve cohesion through the association of lexical items that regularly co-occur in similar environments and contexts.

The frequent use of collocational chains confirms the learners' awareness and understanding of collocations as LCDs that help to achieve lexical cohesion in their writing. However, an analysis of the participants' essays showed that some types of collocations are more frequent than others including adjective and noun collocations and verb and noun collocations. The least noticed type of collocational chains was the adverb and adjective collocation. These findings are confirmed by some previous studies such as (Chanyoo, 2018; Johnson, 1992). Brashi (2009) states that collocational competence is one of the most challenging level of linguistic proficiency that L2 learners can utilize. Therefore, it is the most problematic cohesive tie since there is no clear governing system through which collocations might work as mentioned by Halliday and Hasan (1976). This reflects how collocations are often less frequently used in L2 learners' essays (Alarcon, 2013).

4.1.3 Synonyms

Statistics

Synonyms

N	Valid	56
	Missing	0
Mean		14.4286
Std. Deviation		8.32926
Minimum		4.00
Maximum		45.00
Sum		808.00

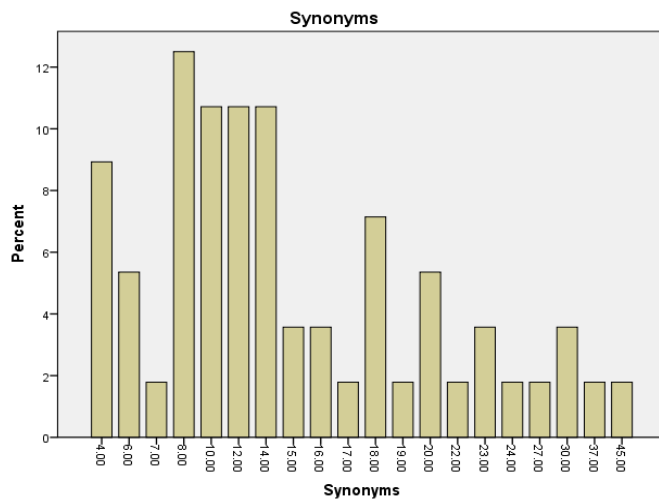


Table 6: The frequency of synonyms in L2 learners' essays

Chart 2: The distribution of synonyms

According to Table 6 and chart 2, the participants used a total number of 808 synonyms. The minimum number of synonyms identified in each essay was 4 synonyms, whereas the maximum number was 45 synonyms. The average use of synonyms in all essays was nearly 14. The highest percentage of

participants used between 8 and 14 synonyms in each essay, which is very limited in comparison with the use of other LCDs including repetitions and collocations. Example 3 shows participants' use of synonyms in their essays.

Example 3:

The story also shows that in order to **overcome fear**; people must have the courage and determination to **defeat** their **horrors**. Since it was his first day at war, he was **frightened** and **scared** at the most.....Some readers did not approve of the closure of the story as it was **incomplete** or **unfinished** in terms of some **ideas** and **thoughts**.

Example 3 illustrates how the participant implemented synonyms in his/her essay in order to achieve cohesion. The participant used “defeat” as a synonym for the verb “overcome”, “frightened” as a synonym for the adjective “scared”, “unfinished” as a synonym for the adjective “incomplete” and “ideas” as a synonym for the noun word “thoughts”. This is a clear illustration of how synonyms can be used in writing to create cohesion and text unity instead of repetition that sometimes creates a dull and boring tone if it is misused. However, this is not the case with all the participants as it is evident in the overall frequency of synonyms among all six LCDs at % 8.54. The participants showed a limited ability to implement synonyms in their writing although they are exposed to a big number of academic vocabulary each semester.

These findings are in harmony with those reached by Kafes (2012), where participants used very few synonyms in their writing in English and Turkish as well. Similar to the present study findings, Kafes mentioned that the participants overused repetition to replace synonyms. Connor (1984) confirmed these findings by stating that synonyms were reported among the least frequent LCDs in ESL students’ writing. As for the participants of the current study, their minimal use of synonyms could be due to either their limited knowledge and understanding of creating synonyms or that they were unaware that using synonyms in writing helps to create cohesion and text unity. In order to confirm this point, the semi-structured interviews were constructed to further validate these assumptions.

4.1.4 Antonyms

Statistics

Antonyms		
N	Valid	56
	Missing	0
Mean		11.8214
Std. Deviation		5.08512
Minimum		2.00
Maximum		26.00
Sum		662.00

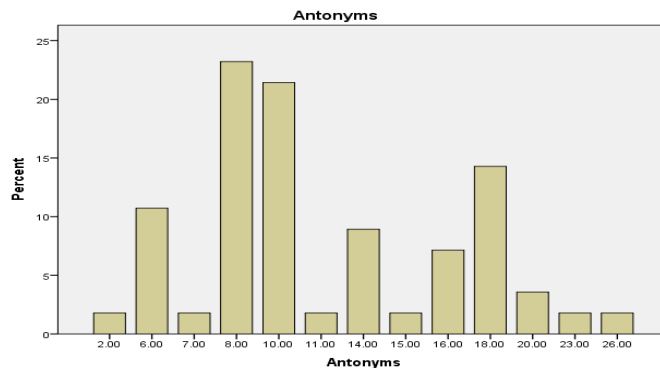


Table 7: The frequency of antonyms

Chart 3: The distribution of antonyms

Antonyms were the fourth most frequently used LCD among all six categories at 662 antonyms in total; thus, they represented % 7.00 of the overall LCDs. The minimum number of antonyms used was 2, while the maximum number was 26 with an average of nearly 12 antonyms per essay. The majority of students used between 8 and 10 antonyms per essay as shown in Chart 3. This indicated how they were less frequently utilized by participants in their writing. Example 4 shows how participants used antonyms in their writing.

Example 4:

The major theme of the story is that people must overcome their fears, and they need to have enough courage to do so.....The story has a number of strengths and weaknesses as well....The short story is liked by many people, whereas it is sometimes being disliked by others for some reasons....As written in the ending, Paul is stopped from histrically laughing and then continues the march with his platoon.

The sentences in example 4 show how antonyms were used to show contrast and to create cohesion in the essays. Some verbs were used as antonyms such as “stopped” and “continued”. Also, there were nouns used as antonyms including “fear - courage” and “strengths – weaknesses”. There were two adjectives used as antonyms in Example 4, which are “liked” and “disliked”. Overall, antonyms were used to introduce the strengths and weaknesses as part of the critical review essay writing. Besides, they were used to show contrast. Similar to the less frequent use of synonyms, antonyms’ less frequency might occur due to the participants’ inability to create antonyms or because they were not aware that using them would create cohesion and text unity.

These findings are confirmed by El-Gazzar (2006) who found out that antonyms were the least commonly used LCD in students’ essay writing. Although the nature of the essay differed between the present paper and El-Gazzar’s since he examined expository essays that might not require using a lot of antonyms, the present paper’s essay was a critical evaluation that included discussing the strengths and weaknesses of a literary work. Therefore, participants were expected to employ various antonyms that would serve the purpose of the writing task. The findings of the present paper and El-Gazzar’s were similar as they studies were conducted mainly on Arab learners of English. This might indicate that the Arabic learners tended not to use many opposites or antonyms in their writing. This notion confirmed the findings of other studies including Xuefan (2007), Yang and Sun (2012), and Crossley and McNamara (2012).

4.1.5 Hyponyms and Meronyms

		Statistics	
		Hyponyms	Meronyms
N	Valid	56	56
	Missing	0	0
Mean		2.0357	7.9464
Median		2.0000	6.0000
Minimum		.00	.00
Maximum		8.00	20.00
Sum		114.00	445.00

Table 8: The frequency of hyponyms and meronyms

These are the least frequently used LCDs in students' writing; therefore, they were discussed and analyzed together. A minimal number of hyponyms was used in all essays (114) compared to (445) meronyms. Both were similar in that some participants did not use any examples of meronyms and hyponyms. The maximum number of meronyms used was 20 per essay, whereas it was 8 for hyponyms. This showed how they were less frequently implemented in students' writing. Example 5 shows how they were used in a participant's essay.

Example 5:

The author presented a strong use of some story elements including the **plot, characters, conflict** and **setting**.....The main character types are **static, round** and **dynamic**.

The participant used the words; "plot", "characters", "conflict" and "setting" as meronyms or parts of the (whole) "story elements". It is obvious that these elements are part of the story component; thus, they are meronyms. However, the words; "static", "round", and "dynamic" are three-character types that are known in literature. Therefore, they are classifications or specific words to the more general word "character types". In this aspect, "character types" is called the superordinate, whereas the words "static, dynamic and round" are the subtypes or the subordinates.

These results are in line with those stated by Liu & Braine (2005), Neuner (1987), and Zhang (2000) in which students used to overuse repetition in order to emphasize their ideas; yet, they relied only slightly on other LCDs such as meronyms and hyponyms to create cohesion. By the same token, the limited use of hyponymy and meronyms as identified in the writings of L2 learners, particularly Arab students confirmed Odlin's (1997) findings that L2 learners with a limited amount of lexis tended to use repetition a great deal more than all the other lexical types to interact with readers and establish text cohesion.

The second research question investigated the correlation between the total number of LCDs used and L2 learners' mark using quantitative correlational statistics. Therefore, the researcher implemented the Pearson Correlation Coefficient tool in order to identify the correlation between these two variables as well as the degree of association. Table 9 provides a summary of the results obtained from the Pearson Correlation Coefficient tool of analysis.

		Students' Mark	Total number of LCDs
Students' Mark	Pearson Correlation	1	.330*
	Sig. (2-tailed)		.013
	N	56	56
Total number of LCDs	Pearson Correlation	.330*	1
	Sig. (2-tailed)	.013	
	N	56	56

*. Correlation is significant at the 0.05 level (2-tailed).

Table 9: the correlation between the total number of LCDs and Students' mark

It is observed that the Pearson Correlation Coefficient was $r = 0.330$, which showed a positive association between the total number of LCDs used and L2 learners' marks. However, the degree of correlation between these two variables was evidently moderate since it fell between 0.3 and 0.49 as per the Pearson Correlation Coefficient criteria. By way of elaboration, the data illustrated that the number of LCDs used affected the writing quality positively as represented by the learners' marks. For example, students who used a huge number of LCDs scored quite a high mark in their essay writing, whereas those who employed

fewer LCDs in their writing obtained a low mark. As an illustration, Table 10 provides some examples of how the writing quality of grade 9 L2 learners correlated positively with the total number of LCDs utilized.

Participant ID	Total number of LCDs	Students' mark
1	296	10
22	227	10
34	216	9.5
38	105	6.5
24	154	6

Table 10: the positive correlation between the total number of LCDs and students' marks

Additionally, the 2-tailed significance value was $p = 0.013$, which meant that correlation was highly significant since the standard alpha value is 0.05. This maintained the validity and reliability of the obtained findings rather than being a random or unintentional coincidence.

These findings are in harmony with a number of previous studies that identified a positive correlation between the number of LCDs and the writing quality such as (Abdulrahman, 2013; Liu & Braine, 2005; Mohamed & Mudawi, 2015; Yan & Sun, 2012). However, the degree of correlation was different since the present study results showed moderate degree of correlation between the two variables. Conversely, the findings contradicted other studies' results that found no link between the total number of LCDs and the quality of writing such as (Castro, 2004; Chanyoo, 2018; Xu, 1999). These studies mentioned that there was no definite agreement or answer to whether or not cohesive density correlated with poor and good rated written essays.

These findings added more controversy to the notion of whether or not cohesive density correlated with the quality of the writing. No single study had identified a dependable response that would apply to a wider spectrum of learners of other languages including the present study for some possible factors. Firstly, L1 interfered with L2, which was clearly apparent in Arabic learners of English as stated by Ahmed (2010) and Khalil (1989). Secondly, the majority of previous studies focused on the quantity of cohesive devices regardless their quality, which was confirmed by Hellalet (2013). Their purpose was to calculate the total number of cohesive devices regardless if they were used correctly or improperly. Moreover, using correlational statistics provided various degrees of correlation between the number of LCDs and the quality of writing, starting from low to very strong correlation which indicated multiple interpretations of the

collected data. Additionally, there are various essay genres, which made it difficult to link the findings of each study to the essay type.

4.2 Qualitative findings and discussion

The third research question is about the difficulties that grade 9 L2 learners encountered while dealing with lexical cohesion in writing from the perspectives of both teachers and learners. It was answered by using semi-structured interviews of 4 English teachers who taught grade 9 L2 learners at school besides 15 participants that represented the low, average and above proficiency levels. Section 4.2.1 reports the findings and discussion of students' interviews.

4.2.1 Students' interviews

The participants were asked to answer 10 open-ended questions that would contribute to the overall purpose of the study. The questions mainly focused on investigating the obstacles that they had faced while implementing LCDs in their writing (see appendices B). The interview findings were grouped into five themes.

4.2.1.1 Students' awareness of LCDs

The participants were asked to what extent they had been aware of LCDs including repetition, synonyms, hyponyms, antonyms, meronyms and collocations. Although the researcher made sure that the participants were introduced to these devices before starting the study, some participants did not show full awareness of all LCDs under investigation (n=4). The majority of participants showed a thorough awareness of all LCDs, particularly synonyms, repetition, antonyms and collocations (n=11). One participant with a high proficiency level responded to this question by saying:

"I am aware of all of these devices, particularly repetition, synonyms, antonyms and collocations". When he asked about the last two, the researcher re-explained them to him. Hence, the student responded by saying:

"We already study these devices when we learn vocabularies and analogies, but we have them in different terms such as classifications (C) and part and whole relationships (PW) instead of hyponyms and meronyms".

As a follow-up question, the researcher asked where from they got this information about LCDs. Almost all of the participants confirmed that they had learned about them at school through teaching and learning and from other sources such as the internet.

4.2.1.2 Students' learning about LCDs

The participants were then asked how the teachers had taught them about these LCDs and how this was connected to the writing process. Several participants (n=12) stated that they studied these devices as part of their vocabulary learning process. They always did the vocabulary template including word definition, synonyms, antonyms, derivatives and example sentences. However, they were introduced to meronyms and hyponyms as part of their analogies learning. A few number of participants (n=3) mentioned that they were introduced to these devices before each academic writing task. Below is a response of a participant:

“We usually had about 5 vocabulary lessons of 10-words each in every semester. These were followed by 2 analogy lessons. This is where we used to learn about lexical cohesion. However, sometimes the teacher introduced some of these devices during the phase of the academic writing task each term”.

4.2.1.3 Student’s difficulties with LCDs

The participants were then asked what obstacles they had encountered while dealing with LCDs in their writing. Their responses varied as almost one third of them (n=6) said that they used to study these devices separately in the context of vocabulary rather than learning them in the writing context in order to serve the purpose of writing. Other participants (n=4) mentioned that they used to repeat words and phrases more than once to make their ideas clear, but it ended up sounding boring and dull for readers. Three participants (n=3) had a difficulty with the timing when it came to think of synonyms and antonyms to include in their writing as it took them long time to do so. The lowest number of participants (n=2) encountered an obstacle with the effort it took them to think of synonyms and antonyms in another language, which they were not good at. Overall, almost all participants agreed that it was easier to think of repetition, synonyms and antonyms than to try to find out meronyms, hyponyms and collocations while writing.

4.2.1.4 Impact of LCDs on students’ writing

Participants were asked about their opinion of the effect of using LCDs on the quality of their writing. One participant of the high-level proficiency group (n=1) stated that he always tried to include as many different LCDs as he could in order to have variety of vocabulary and phrases and to avoid repetition rather than to improve the quality of writing. Most participants (n=7) indicated that using LCDs positively affects the writing quality. Below is a quote of one of the participants while answering this question:

“Of course, including LCDs was a good think; however, I sometimes did not know if they were used correctly or no because the teacher did not focus on giving detailed feedback on them. The feedback addressed the grammatical mistakes and mechanics more. We also cared more about transitions and the essay structure following the given model”.

A few number of participants (n=4) reported that using LCDs would make the writing clearer and more interesting for readers; yet, they had a difficulty implementing them into writing due to the insufficient practice they received in terms of LCDs. Only three participants (n=3) stated that they would make the paragraphs fit more together; yet, they were unable to refer to that as coherence or cohesion in writing. One participant said:

“This would make the paragraphs go well together as one chain. It would also make it more organized and clearer”.

4.2.1.5 Students’ recommendations regarding LCDs

When they were asked about their opinions and recommendations on how to effectively use LCDs to improve their writing quality, participants came out with various responses. Some of them wanted to get intensive practice of all LCDs beforehand (n= 4). Other participants recommended teaching LCDs that would serve the purpose of writing within the context of writing (n=6). A number of them wanted to get extra support from teachers while writing their first draft so that they could avoid mistakes of LCDs while writing the final draft (n= 3). A few participants (n=2) wanted teachers to address all LCDs equally instead of focusing on the most common ones such as synonyms and antonyms. Additionally, they wanted teachers to explain how they were graded within the rubric of each writing task.

4.2.2 Teachers’ interviews

Four teachers were asked to answer 8 open-ended questions that would contribute to the overall purpose of the study. The questions mainly focused on investigating the obstacles that participants had faced while implementing LCDs in their writing (see appendices A). The findings of teachers’ interviews were grouped into six themes.

4.2.2.1 Teaching LCDs at school

The teachers were asked if they had taught LCDs at school and how they did so. Two participants (n=2) commented that they taught LCDs as part of teaching writing. One participant said, *“ I teach cohesive devices in the academic and creative writing such as synonyms, antonyms and repetition. Synonyms help the students provide some variety in word choice to help the readers stay focused”*. Another participant mentioned that she taught LCDs as part of the reading in which she chose one of the cohesive devices and addressed it throughout the text she was teaching. The fourth participant said, *“I taught cohesive devices*

as part of the techniques I followed while students were writing their first draft by addressing the issue of repetition and replacing repeated words with other synonyms and antonyms”.

4.2.2.2 Context-based LCDs

Participants were asked whether it was effective to teach LCDs in context or separately. All participants (n=4) recommended teaching them in context for various reasons including *“the ability to apply them in context rather than just give students the knowledge”*. Also, *“teaching LCDs in context was easier and it helped learners get exposed to these devices accidentally and naturally”*.

4.2.2.3 Most & least common LCDs for students

Teachers were asked what were the most and least commonly used LCDs in students’ writing and why this was the case. One participant said that synonyms were the most frequent LCD in students’ writing. Another teacher reported that *“the most common ones are synonyms, antonyms and collocations because they helped make their language sound more natural and fluent”*. The other two teachers said that, *“repetition, synonyms and hyponyms were the most common because the writing rubric stressed on the word choice and avoidance of over-repetition”*.

4.2.2.4 Students’ difficulties regarding LCDs

Participants were questioned on the hardships faced by learners in dealing with LCDs. The majority of them (n=3) agreed that the lack of lexis awareness and the limited number of cohesive ties were the most challenging difficulties for them. Also, they mentioned that learners’ mother tongue always interfered with their tendency to overuse repetition and underuse other LCDs such as meronyms and hyponyms.

4.2.2.5 Criteria for grading LCDs in writing

One of the questions that were asked to participants addressed the grading criteria for LCDs in students’ writing. All teachers (n=4) believed that it was a must to include a criteria that would be the reference to correcting and grading the use of LCDs in writing. In this context, one participant confirmed that, *“there was a rubric given to students with each writing assignment. It was also essential to show students how they would be graded accordingly. Hence, word choice was the part of the rubric that related to LCDs in which students were aware that they had to use various LCDs to be graded better”*.

4.2.2.6 Teachers' recommendations regarding LCDs

As a wrap up of the interview, teachers were asked about their opinions and recommendations regarding LCDs. One teacher (n=1) replied that she would focus more on teaching all categories of LCDs instead of focusing on synonyms, antonyms and repetition to balance their use in writing. Another teacher recommended teaching LCDs via context to help learners get the proper notion of creating coherence. A third teacher stated that she would adopt the writing rubric to include aspects of coherence and cohesion rather than including only word choice as a criteria for correcting writing. A final participant (n=1) insisted on planning extra practice for learners to master the use of LCDs before applying them into the writing part.

4.3 Discussion of the qualitative findings

In a large part, the qualitative findings for both teachers and learners confirmed the difficulties that grade 9 L2 learners faced in terms of LCDs. Specifically, the dominance of repetition, which was reported by the quantitative findings and confirmed by interviewing participants, affirmed the notion that L2 learners, basically Arabs, had a difficulty of L1 interference with L2 as confirmed by previous studies such as Ahmed (2010) and Khalil (1989). Arab learners think that because these devices help them to achieve coherence in their L1 essays, they can also use them to achieve coherence in their L2 essay writing (Bacha, 2002). The qualitative findings also gave an in-depth understanding of why certain lexical ties were more dominant including repetition and collocations. Participants were less familiar with some ties such as meronyms and hyponyms as terms although they had been introduced to them as part of their ELA coaching at school. This clearly explained why these two LCDs were the least commonly used in students' writing. Another justification of the moderate correlation between cohesive density and the quality of writing was that LCDs were mostly taught separately aside from the writing context. Plus, teachers were not used to giving proper feedback on the correct and wrong implementation of these devices in students' writing.

According to Carell (1983), cohesion development is -to somehow- related to vocabulary development. Therefore, this could be a possible interpretation of why participants encountered difficulties while dealing with some LCDs. They mostly learned lexis in a different context from that of the writing; thus, it was hard for them to practice applying LCDs in their writing. Going beyond the context of lexis and writing in order to improve awareness of cohesive relations was a significant recommendation by one of the teachers. This was in harmony of Nunan (1993) who stated that there was a strong correlation between developing the general reading abilities as measured by standardized reading tests and the learners' ability to identify cohesive relations.

CHAPTER FIVE

CONCLUSION and RECOMMENDATIONS

5.1 Summary of the paper and key findings

This research paper presented an investigation of the use of LCDs in G9 L2 learners' critical review essay writing with an emphasis on the frequency of each LCD, the correlation between cohesive density and the writing quality and an identification of the main challenges faced by participants in terms of using LCDs. The significance of this paper came from the need to identify the difficulties that participants encountered with LCDs while writing essays in order to find practical solutions that would help them to improve the quality of their writing, which is a major requirement to pass international exams such as MAP, IELTS, TOEFL IBT and SAT. The mixed-methods approach was adopted to achieve the purpose of the study, and it proved effective in maintaining the validity and reliability of the findings. The quantitative descriptive statistics approach was used to find out the frequency of LCDs in the essay, and the quantitative correlational statistics approach was adopted to examine the correlation between the number of LCDs and the writing quality. However, the qualitative descriptive approach, using semi-structured interviews, was used to identify the challenges faced by the participants in terms of using LCDs in essay writing.

Based on the findings of the current research paper, repetition and collocations were the most frequently used LCDs, and repetition was far more frequent than all other LCDs. Synonyms, antonyms, hyponyms and meronyms were the least frequent LCDs in participants' writing, and the lowest frequencies were identified with hyponyms and meronyms. The study also found that there was a moderate positive correlation between the number of LCDs and the writing quality. This finding is considered important since most previous studies did not have a similar degree of association between the number of LCDs and the writing quality. Another significant result of the study was the difficulties encountered by participants while using LCDs in their writing. These included L1 (Arabic) interference with L2 as it was reflected in the overuse of repetition. Among the obstacles that participants faced was the lack of support from their English language teachers at school regarding teaching LCDs where they taught them as part of the vocabulary and in a separate context than the writing. An additional challenge that participants encountered was the lack of proper feedback on how to implement LCDs

effectively in essay writing. The writing rubrics did not clearly illustrate the criteria in which coherence was graded. The qualitative data findings confirmed the quantitative data results and they reflected thoroughly why the participants faced these obstacles.

5.2 Limitations

As with the majority of studies, the design of the present study is subject to limitations. One limitation was that the study was conducted on quite a small number of L2 learners and on a few essays; thus, the findings could not be reliably generalizable. Among the limitations of the current paper was the inability to include all cohesive devices as only chosen LCDs were studied. This would have given a more comprehensive perspective of text coherence for L2 learners. One more limitation was the manual analysis of LCDs in students' essays. Although it was followed by the use of an automated analysis tool (Coh-Matrix), the identification of LCDs might be insufficient. A further limitation of the study was that the participants did not provide essays with a unified length or word count although they were assigned to write 350 words. An extra limitation was that some of the studies reviewed in literature did not correspond to Halliday and Hasan's (1976) model of cohesion, which was the only model adopted as the framework of analysis of the current paper.

5.3 Recommendations

Based on the findings of the present study, some recommendations were identified in order to achieve coherence in the participants' essay writing. Firstly, among the findings of this study was that LCDs were taught as part of the vocabulary context, which proved to be invalid. Therefore, English teachers are recommended to teach these devices in the context of writing as part of the writing process. Also, it is recommended that students identify these devices in reading texts to examine how they help to achieve coherence. Secondly, the results showed that the participants lacked enough support from their teachers regarding proper feedback and correction of LCDs. That is why teachers are advised to give students sufficient feedback about the correct and incorrect use of LCDs, and they are recommended to clearly include the proper criteria for grading coherence in students' essays. The writing rubric needs to be modified to ensure a comprehensive and effective marking scheme regarding LCDs since it was identified as a defect in the rubric. A further recommendation is that teachers need to balance coaching all LCDs, instead of focusing only on repetition, synonyms and antonyms since the results found out that not enough teaching and emphasis was given to meronyms and hyponyms.

Additionally, it is equally recommended that English language learners help to increase L2 learners' awareness of LCDs since the findings identified some shortcomings regarding the sense of awareness on this area of cohesion in writing that needs to be fostered. L1 interference with L2 was identified as one difficulty L2 learners encountered; thus, it is recommended that teachers help their students to differentiate LCDs between the Arabic and English languages.

5.4 Implications for future research

Based on the findings of the present study, there are some implications for future research, which is related to achieving coherence in L2 learners' essay writing. The present paper makes contribution to research by providing guidance for future research through the investigation of cohesion on a specific writing genre. An additional research is substantially needed to examine the use of lexical and grammatical cohesive devices in students' written essays in a comprehensive study using a larger population that will make it possible to generalize the findings. A key feature of future studies will be to consider other socio-linguistic variables such as participants' age, sex, writing genres and L2 proficiency level and how they might affect text coherence. Another rich area for future research would be to examine the effectiveness of other teaching strategies and techniques, which are used to teach LCDs, on improving learners' coherent essay writing, since it is apparent that the present teaching strategies adopted by English language teachers are not sufficiently valid and they do not enhance students' skills to write a critical review essay successfully.

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Appendices

Appendix A:

Sample Questions from teachers' Semi-Structured Interview

1. How do grade 9 L2 learners of English learn about lexical cohesive devices (repetition, synonyms, antonyms, hyponyms, meronyms and collocation)? What resources are available for them to get the knowledge?
2. What are the most common lexical cohesive devices in grade 9 L2 learners? Which devices are the least common? Why?
3. Which is more effective for students; teaching lexical cohesive devices separately or as context-based? Which technique has the greatest impact on students' writing quality?
4. Do you ensure including a criteria for grading the lexical cohesive devices in the academic writing rubric? Is it important? How do you grade it for students?
5. In your opinion, does the effective use of lexical cohesive devices affect the quality of learners' writing? Is it considered a weakness if they are not used properly by learners?
6. How often do grade 9 learners have mistakes while using lexical cohesive devices in their writing? What challenges do they encounter? What recommendations can you provide them so that they can overcome such difficulties?
7. If you plan to change your teaching strategies regarding lexical cohesive devices, what will you do? Will you teach them in a different context? Will you include them while you are planning for your lessons? |

Appendix B:

Sample Questions from Students' Semi-Structured Interview




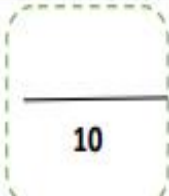
1. What do you know about lexical cohesive devices? Where from do you usually learn about them? why?
2. Do you learn about these devices using a specific context? If so, what is it?
3. In your opinion, which lexical cohesive devices are the easiest to apply into your writing? Which ones are the most difficult for you? Why this is the case?
4. What do you think is the effect of implementing lexical cohesive devices in your essay writing? Do you think they are necessary? Why do you think so?
5. Are you able of thinking and including all lexical cohesive devices while you are writing essays?
6. In general, what are the basic challenges and obstacles that you have regarding the use of lexical cohesive devices in your writing?
7. Tell me about your recommendations of how to improve the quality of writing, particularly in terms of using achieving coherence.

Appendix C:

Holistic Writing Rubric

Standards: W 9-10.1, W 9-10.2, W 9-10.3, W 9.4.c, W 9.1.e, W 9.4, W 9.5, L 9.1, L 9.2

Rubric for a Critical Review Essay

	4	3	2	1
Organization 	<p>The review begins with a clear thesis statement that identifies the work by title, author, and genre and succinctly states a critical position on one aspect of the work. The body introduces and explains criteria for the critical review; specific points are supported with details and examples from the work. The conclusion leaves the reader with a memorable final point or a strong impression of the writer's critical impression.</p>	<p>The review begins with a thesis statement that identifies the work by title and author and indicates a critical position on some aspect of the work. The body gives the criteria for the critical review; specific points are supported with evidence from the work. The conclusion brings the review to an appropriate close.</p>	<p>The review begins with a thesis statement that identifies the work by title and author, but it may not clearly indicate a critical position on the aspect of the work being reviewed. The body gives only partial or confusing criteria for the critical review; most points are not supported with evidence from the work. The conclusion may be weak, repetitive, or missing.</p>	<p>The review does not begin with a thesis statement, and the writer fails to identify the work by title and author. The body does not develop a critical position. No organizational plan is evident.</p>
Elements of Critical Reviews 	<p>The purpose of evaluating the work is achieved, thereby deepening the reader's understanding of the work. The review establishes, explains, and sticks to the same criteria for evaluation throughout. The tone is appropriate to the content of the critical evaluation.</p>	<p>The review offers some insight into the work. For the most part, the review establishes, explains, and sticks to the same criteria for evaluation throughout. The tone is generally appropriate to the content of the critical evaluation.</p>	<p>The review offers little insight into the work. The review does not focus on the same criteria throughout. The tone is not appropriate to the content of the critical evaluation.</p>	<p>The review does not offer insight into the work. The review fails to establish criteria or does not present an understandable point of view. The tone is inappropriate or inconsistent.</p>
Grammar, Usage, Mechanics, and Spelling 	<p>There are few or no errors in mechanics, usage, grammar, or spelling. The title of the work and evidence from the work are correctly capitalized and punctuated throughout.</p>	<p>There are some errors in mechanics, usage, grammar, or spelling. Most conventions related to capitalizing and punctuating the title of the work and supplying evidence from the work are followed.</p>	<p>There are several errors in mechanics, usage, grammar, or spelling. Only some of the conventions related to capitalizing and punctuating the title of the work and supplying evidence from the work are followed.</p>	<p>There are many serious errors in mechanics, usage, grammar, or spelling. Few or none of the conventions related to capitalizing and punctuating the title of the work and supplying evidence from the work are followed.</p>
Total				

Appendix D:

The writing task

Writing (W)

(10 marks)

Choose ONE of the following topics:

Topic A:

“The Raven” by Edgar Allan Poe is a well-known classical poem that is considered a unique literary work. Many critics have written different critical reviews about it. **Write a well-organized critical review essay of five paragraphs about 350 words to evaluate this work of literature** using the convention of academic writing and make sure to include a summary of the poem, points of strength and points of weakness.

Synopsis

The speaker in Edgar Allan Poe’s classic poem, “The Raven” is a man grieving over the death of his beloved Lenore. A raven mysteriously flies into his study late one dreary night and responds with the word “Nevermore” to each of the man’s questions, adding to his torment. In the end, the man demands that the raven leave, but the bird remains.

Topic B:

Tim O’Brien is generally recognized as the preeminent American novelist of the Vietnam experience. His tour of duty during the war allows him to write realistically about the lives and deaths of soldiers at the time. “Where Have You Gone, Charming Billy?” is one of his outstanding literary works. Many critics have written different critical reviews about it. **Write a well-organized critical review essay of five paragraphs about 350 words to evaluate this work of literature** using the convention of academic writing and make sure to include a summary of the story, points of strength and points of weakness.

Synopsis

In “Where Have You Gone, Charming Billy?” Private First-Class Paul Berlin, soldier in Vietnam, heads with his unit toward the sea, where he hopes to find safety. During the journey, he reflects on the death a day earlier of Billy Boy Watkins, who became so terrified after stepping on a mine that he died of a heart attack.

Appendix E:

Writing sample

Write your essay on the lines provided below.

"Where have you gone, Charming Billy?"

"Where have you gone, Charming Billy?" is a short story by Tim O'Brien which takes place during the period of Vietnam War. Over 2 million Americans were sent to Vietnam including author Tim O'Brien. The author's main idea is facing fear in different ways and accomplish having courage to accomplish tasks that are given. The majority of the people liked the story because of the figurative language used such as imagery and flashbacks. However, some people disliked it because of the repetition and because of the protagonist.

No need for using it. ~~Turn~~ ~~Good Thesis~~

The story talks about a soldier named Private First Class Paul Berlin who is terrified and nervous at his first day in the war. He tries while the soldiers are willing to reach safely to the sea. Paul tries to distract himself in many ways to stop thinking about the fear that he has such as counting his steps and pretending they were dollar bills and by singing. He never forgets Billy Boy Watkins who is a soldier that died of a heart attack. However, once, he strongly remembers the way that Billy Boy Watkins and starts giggling so hard which put the other soldiers in danger so they faced him. After a while, a soldier named Toby introduces himself to Paul and checks over his health because of to make sure that he is alright. After a short period of time, the soldiers arrive to the sea but Paul Berlin was still afraid.

5 your summary is up to the point

1. The figurative language used such as imagery and flashbacks makes it more interesting for the readers and grabs their attention. Imagery is a figurative language that uses description that appeals to the five senses: sight, touch, smell, hear, taste. It makes it more imagery for the readers as if they are in that situation instead of the character. The imagery used in this story is when Paul Berlin was counting his foot steps and pretending they were dollars, and each dollar made him richer and richer. Imagery used here is sight. It makes the reader imagine and visualize the situation and adds depth in their thinking. In the same token, the author used flashbacks. Flashbacks is when the character recalls situations that happened before. They are used to provide important information that was not mentioned. The author used flashbacks when Paul Berlin was remembering Billy Boy Watkins and how he stepped on the mine. He also used flashback when Paul Berlin was remembering his childhood and when his father used to open his closet and show him that there are no ghosts in it.

Despite the figurative language used, the story has some weaknesses that changes it from interesting to ordinary. One of those weaknesses is the repetition. Repetition is something strong but not all the time. It is used to focus on something important, but in this story, it does not focus on something really important. The repetition of the way Billy Boy Watkins make it seem boring for the reader because they are reading something that is repeating and which makes the story less interesting and boring. Not only repetition, but the protagonist as well. The protagonist is the main character that changes in a story.

Writing sample

But in "Where have you gone, charming Billy?" the protagonist who is Paul Berlin does not change. At the beginning, he had fear and wanted to reach the sea to safety and to feel safe there. However, he reaches the sea but he's still having fear, facing fear.

To conclude, ^{the} majority liked it due to the imagery and flashbacks that made it seem interesting and some didn't like it because of the repetition and the stable protagonist that doesn't change. The Paul Berlin faced his fear and had courage to accomplish the mission he went to and was strong enough to stay and not die of a heart attack just like the other soldier Billy Boy Watkins. People rate the story as 8.5 out of 10.

R	130
S	10
A	18
H	6
M	12
C	51

Remember to revise your work thoroughly before submitting it.

Appendix F:

Letter of Approval



10/14/2019

To whom it may concern

This is to certify that Mr. Abdelhamid Khalil with Student ID number 20174242 is a registered part-time student in the Master Of Education offered by The British University in Dubai since April 2018.

Mr. Khalil is currently collecting data for his research (An Investigation of the Use of Lexical Cohesive Devices in Grade 9 Students at an American School in Sharjah)

He is required to gather data through conducting interviews that will help him in writing the final research. Your permission to conduct his research in your organisation is hereby requested. Further support provided to his in this regard will be highly appreciated.

Any information given will be used solely for academic purposes.

This letter is issued on Mr. Khalil's request.

Yours sincerely,

Dr. Amer Alaya
Head of Student Administration