



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Sudan University of Science and Technology

College of Graduate Studies

College of languages



Investigating Difficulties Facing EFL Students in Using Cohesion Categories in Written Discourse

**(A Case Study of Second year Students of English at Sudan
University of Science and Technology-College of Languages)**

**تقصى الصعوبات التي تواجه طلاب اللغة الانجليزية كلغة أجنبية في استخدام
أصناف التماسك النحوي للخطاب المكتوب**

**A Thesis Submitted in Fulfillment of Requirements for PhD Degree
in English Language (Applied linguistics)**

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Opening Quran verses

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿ أَقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ﴿١﴾ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ ﴿٢﴾ أَقْرَأْ وَرَبُّكَ الْأَكْرَمُ ﴿٣﴾ الَّذِي عَلَّمَ بِالْقَلَمِ ﴿٤﴾ عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ ﴿٥﴾ ﴾

صدق الله العظيم

سورة العلق ، الآيات (1-5)

(1) Recite in the name of your Lord who created (2) Created man from a clinging substance. (3) Recite, and your Lord is the most Generous (4) who taught by the pen (5) Taught man that which he knew not.

Dedication

I dedicate this work to my parents, Family and colleagues as well.

Acknowledgements

All praise and great thanks are due to Allah the Almighty who bestowed me with patience, perseverance and the means to complete this study. My sincere gratitude and appreciation are due to my supervisor Dr. **Mahmoud Ali Ahmed** Supervisor for his tireless efforts, guidance, great support and encouragement throughout the stages of this study. Special of praise is reserved to *Dr. Hillary Marino Pitia* for his support of reviewing the research, guiding me throughout this academic work.

Abstract

This study aims at investigating difficulties facing EFL students in using cohesion categories in written discourse. The researcher has adopted descriptive analytical method. Two instruments have been used as main tools for collecting data relevant to the study, namely questionnaire to teachers of English at some Sudanese Universities and written diagnostic test to the second year students of English at Sudan University of Science and Technology-College of Languages. The study sample of questionnaire comprises (30) teachers whereas the written diagnostic test composes (82) students. The researcher applied SPSS program to analyze the items to emphasis hypotheses. The results have shown that most EFL the most students are unable to use simple lexical repetition of cohesive tie in written discourse the highest percentage between (85 – 63%). Moreover, all of them are not able to comprehend the clearness of the point of view of the writers create coherence in written discourse. Most EFL students are unfamiliar with equivalence (synonym) of cohesive ties in written discourse. The study has recommended that EFL students should be equipped with knowledge of effectiveness of the introductory paragraph (thesis statement) of coherence in written discourse. On the other hand, trained teachers should help students to widen their knowledge of coherence in written discourse. The researcher investigates Mother tongue interference should be avoided when utilizing lexical repetition in written discourse. Some suggestions are also proposed for further studies.

المستخلص

تهدف هذه الدراسة إلى تقصي الصعوبات التي يواجهها طلاب اللغة الإنجليزية لغة أجنبية في استخدام أصناف التماسك للخطاب المكتوب. وقد اتبع الباحث المنهج التحليلي الوصفي ، وتم استخدام اثنين من الأدوات لجمع البيانات المتعلقة بالدراسة ، المتمثلة في استبيان صمم خصيصاً لأساتذة اللغة الإنجليزية في بعض الجامعات السودانية وأيضاً اختبار تشخيصي مكتوب لطلاب السنة الثانية بكلية اللغات جامعة السودان للعلوم والتكنولوجيا . وقد تم اختيار عينه بحجم (30) بالنسبة لأداء الدراسة الأولى وعينه بحجم (82) طالب الاختبار التشخيصي المكتوب. وطبق الباحث برامج الحزم الإحصائية للعلوم الاجتماعية (SPSS) لتحليل النقاط الستة وإثباتها مع الفرضيات وتأكيداتها. واتضح جلياً من خلال نتائج الدراسة أن الطلاب غير قادرين على استخدام تكرار المفردات لروابط التماسك في الخطاب المكتوب بنسب تتراوح ما بين (85 - 63%) . بالإضافة إلى أن معظم طلاب اللغة الإنجليزية لغة أجنبية غير قادرين على استيعاب وجه نظر الكاتب لخلق انسجام في الخطاب المكتوب. أن الطلاب غير معادين على تكافؤ المترادفات لروابط التماسك في الخطاب المكتوب. وخلصت الدراسة لعدد من التوصيات أهمها على الطلاب أن يكونوا ملمين بمعرفة فاعلية المقدمة الافتتاحية للخطاب المكتوب. من ناحية أخرى على الأساتذة المتدربين مساعدة طلابهم لتوسيع معرفتهم في انسجام النص للخطاب المكتوب. ينبغي تجنب تداخل لغة الأم عند استخدام المفردات المتكرر للخطاب المكتوب. وأيضاً قدمت بعض المقترحات للدارسات المستقبلية في هذا المجال.

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CHAPTER ONE
INTRODUCTION

CHAPTER ONE

1.1 Background of the Study

Cohesion is a crucial feature to be used in writing. The text is a unit of the language in use. It is not only a grammatical unit but also a semantic one. Cohesion is a semantic concept, “it refers to relations of meaning that exist within the text, and that define it as a text” (Halliday and Hassan 1976:4). It is expressed through the grammar and vocabulary. Cohesion features are the properties that distinguish a text from a disconnected sequence of sentences.

Kroll (2003) stated that writing involved ‘process theory’ and ‘the composing process’, where many felt that the focus of the writing course in writing process was a theoretical development when it was first popularized and. However, a more precise statement was the process insights enhanced the methodological breakthrough in terms of the teaching of writing. Also he believed that every writer either from the beginner until the professional writer, engage in some processes in completing a given writing task. Moreover, most writing teachers probably agree that by lengthening a single piece of writing, it will contribute most towards the expansion of the students’ writing skills. In addition, according to McNamara, Crossley and McCarthy (2010), writing is well produces a substantial challenge for students and crucial importance for achievement in an extensive diversity of circumstances and profession. Aligned with this view, Crowhurst (1990) also stated that in order to communicate convincingly with others at large such as peers, colleagues, coworkers, teachers and community, effective writing is apparently crucial. In discourse research, text processing always has a noticeable status, and researchers are interested in the textual cohesion’s

mechanism where they formed hypotheses of the possibility of coherence in the reader's mind (Yeh, 2004).

In terms of organization of the flows of ideas in text. This is due to her view, where she mentioned on how the explicit cohesive ties should not be relied on in unifying. In contrast, in terms of textual coherence, Carrel (1982) claimed that text cohesion is not necessarily a written property manifested by grammatical or lexical connective ties, but cohesion is an outcome of coherence where the readers are able to connect ideas from their schemata. She proposed that in teaching writing and composition in second language cohesive ties should only act as secondary part to instruction the text's idea when the readers have the ability to connect the text's idea without relying to it. According to Thompson (2001), the audience awareness in writing is affected by the organization of text and the signal of the organization. Based on his view, a text can be a record of dialogue between the writer and the reader. It involves an attempt made by the writer in guessing the expected information by the readers in certain point at unfolding text, and proceeds with their expected questions towards the written text. Aligned with Thompson's (2001) idea regarding the relationship between the writer and the reader, McNamara, et. al (2010) also have the same view where they believed that the writer's aim in conveying the thesis of composition should be aided by the cohesion which either across or within the text. Based on the previous studies reviewed by them, they found that many assumed that in order for the text to communicate successfully the writer's envisioned message to the reader, the essential condition involved a cohesive text. In relation to cohesion in writing, Tanskanen (2006) referred it as the grammatical and lexical elements which connect between parts of the text on its surface which has no commonly exclusive than coherence although they are separated. Tanskanen (2006) referred coherence as an outcome of a dialogue between the reader and the text which does not reside in the text. Thus, it is concluded that cohesion also

contributes to coherence, as it is one of the ways in signaling the coherence in the text. According to Morris, Beghtol and Hirst (2003), readers' understanding is related with the relationship between words when they read the text. Similarly, McNamara, et. al (2010) also stated that in terms of the reading understanding, cohesion is crucial for its ease, but however it depends on the needs of the readers whether the facilitation benefits them. But on the other hand, they also asserted that the relationship between writing and cohesion has just a little understanding. Hoey (1991) stressed on the significance of text-forming properties of lexis, where he stated that lexical cohesion received less attention although it has multiple relationships if one considers about its importance in texts. There are three main categories of cohesion which are referential cohesion, relational cohesion and lexical cohesion. Although cohesion involves both grammatical and lexical elements as mentioned previously by Tanskanen (2006), however, for the purpose of this present study, the entire focus will be only on lexical element which is lexical cohesion. As stressed by Tanskanen (2006), the greater part of cohesion involves the study of lexis, and the considerable degree of the study of lexis patterns in text is included in the study of cohesion in text. It is appeared that many studies just restricted to only a part of lexical cohesion, and some others might be excluded for attention. In terms of speech and writing, learning to use cohesion is crucial in language learning, thus there is a need for studies of cohesion in those two aspects (Tanskanen, 2006).

Lexical cohesion is related to conceptual structures and has the capability to signal the relationship between those structures. Tanskanen (2006) agreed with this view, as cohesive devices prompt the successful interpretation of message to the receiver, whether there is a close link between knowledge structures and cohesion. Thus, the purpose of this research is to investigate the use of lexical cohesion among EFL students in written discourse. Henceforth, the objectives of this research are to

discover that the types of lexical cohesion that students are used in their written discourse. In addition, this research is also made to identify how the students use the lexical cohesion in their written discourse.

1.2 Statement of the problems

Writing is the most complex skill to master in EFL context. EFL learners face serious problems when they write. They are not aware of the mechanics of coherence and cohesion, besides they face problems in the generating and organizing ideas. The problems can be attributed to the fact that students in schools are not well-trained in English writing. Teacher at schools focus on the sentence level more than the discourse level and so they do not emphasize such cohesive devices. Cohesion and coherence are considered as the two important features of good writing. Thus more attention should be paid in creating and organizing ideas in general and to the role of grammatical cohesive devices particularly at the end of this section (1.2) hence, this study is going to investigate difficulties facing EFL students in using cohesion categories in written discourse.

1.3 Objectives of the study

This study sets out to achieve the following objectives:

1. To investigate types of cohesive ties is used by ELF students in written discourse.
2. To highlight the problematic areas in using lexical cohesive ties in written discourse.
3. To provide facts about cohesive ties and coherence in written discourse.

1.4 Questions of the study

This study is set out to answer the following questions:

1. What types of grammatical cohesive ties do Sudanese second-year University students EFL misuse in their writings?

2. To what extent do EFL students face problems in using lexical cohesive ties in written discourse?
3. What are effective grammatical and lexical cohesive ties on the evaluation of the overall quality of students' writing?

1.5 Hypotheses of the Study

This study sets out to test the following hypotheses:

1. There are different types of grammatical cohesive ties errors used by EFL students in written discourse.
2. EFL students significantly face problems in using lexical cohesive ties in written discourse.
3. Less skilled students misuse coherence of a well-written text is one of the main reasons for the bad quality of EFL students' academic writings.

1.6 Significance of the study

Lexical items, as the main carrier of message and the means of expression, are the major building blocks of any written discourse. The fact that lexical devices are the most broadly used may affect cohesion in language users' writings. As mentioned earlier, language learners are able to apply a variety of conjunctive devices to bridge the previous and following sentence (s) both to make their writing more clear, orderly, and logical and to make their writings semantically, pragmatically, and grammatically well formed. This study will make an important contribution to a basic issue in educational research, as it will provide a description of grammatical and lexical cohesive ties used in written discourse by students majoring in English at Sudan University of science and technology- College of languages. It is expected that the study might help to determine the relation between the use of grammatical & lexical cohesive ties, (cohesion) and the quality of writing, (coherence). An

understanding of students' use of cohesive devices can help providing the way for preparation of writing course materials and upgrading of teaching and learning process to suit the learners of English language EFL in Sudan.

1.7 Methodology of the Study

The researcher has adopted the descriptive analytical methods. Two instruments have been used for collecting data relevant the study, namely written diagnostic test was given to students of English (second year) so as to reveal the problematic areas Whereas, questionnaire to teachers of English in some Sudanese universities in checking their point of view.

1.8 Organization of the Study

This study consists of five chapters. Chapter one is known as the introduction of the study. It includes background, the problem, the objectives, the questions, the hypotheses, significance, research methodology, limitation and organization of the study. Chapter two is about literature review and previous studies. Chapter three is the research methodology, which includes research design, population of the study, instruments of the study, validity and reliability, and data collection procedure. Chapter four is about data analysis and interpretation. Chapter five is the final chapter of the study which includes summary of the main findings, conclusion, recommendation and suggestion for further studies.

1.9 Limits of the Study

This study was limited to investigate difficulties faced by EFL students in using grammatical & lexical cohesive ties and coherence in written discourse. It hoped that will tentatively cover the academic year from (2018-2019). It was conducted at Sudan University of science and Technology, College of languages, and study sample was exclusively drawn from second year students of English.

CHAPTER TWO
LITERTURE REIEW AND PRVIOUS
STUDIES

CHAPTER TWO

LITERATURE REVIEW AND PREVIOUS STUDIES

2.0 Introduction

This chapter discusses the related literature review on investigating difficulties faced EFL students in using cohesion categories in written discourse. It will be divided into two parts; the first part is called theoretical background and the second part is called previous studies.

Part one: Theoretical Background

For over three decades, cohesion and coherence have been the center of interest of many researchers, since the conventions of writing and the theories of syntax proved inadequate to the comprehensive teaching of writing. Their manifestation in texts as features through which they appear as unified wholes has been examined through different models of analysis. Before dealing with the concepts of cohesion and coherence, as well as the different models of analysis applied to them, let us first talk about the concepts of text and discourse, written and oral communication, since they are key terms in the study.

2.1. Text versus Discourse

The distinction between text and discourse is not clear-cut. Some researchers use the terms interchangeably. Others identify systematic differences between them. Text, for some researchers, is the record of discourse (Brown & Yule, 1983). In other words, it is the verbal record of a communicative event. Hence, text is written and made up of sentences, whereas discourse is spoken and made up of utterances (Coulthard, 1985). For others, text is a product, whereas discourse is a process since it is associated with dynamic qualities (Brown & Yule, 1983, &Widowson, 1979). It is “a complex cognitive and social phenomenon” (Brown & Yule, 1983). The most common distinction is that text refers to discourse

without context, while discourse is text with context (Hoey, 1991;). De Beaugrande (1981), however, points out that it is difficult to decontextualize texts in actual analysis since crucial information would be missing. He considers text as far from being merely a sequence of words. It is a communicative event which meets seven standards of textuality: cohesion, coherence, intentionality, acceptability, informativity, situationality, and intertextuality.

- Cohesion: It refers to the grammatical dependencies in the surface text.
 - Coherence: It refers to the configuration of concepts and relations which underlie the surface text.
 - Intentionality: It refers to the writer of the text's attitude to the text.
 - Acceptability: It refers to the reader of the text's attitude to the text.
 - Informativity: It refers to the extent to which the message of the text is expected or unexpected, known or unknown, etc.
 - Situationality: It refers to the factors that make a text relevant to a situation.
 - Intertextuality: It refers to the factors which make the utilization of one text dependent upon knowledge of previously encountered text.
- Discourse for De Beaugrand and Dressler is a set of interconnected texts. Here both text and discourse are contextualized within linguistic, cognitive, and social actions.

2.2. Speaking Versus Writing

A review of the differences between speech and writing is necessary in this study because cohesion and coherence are perceived differently according to whether the text is spoken or written. the following famous example:

A- That's the phone.

B- I'm in the bath.

A- OK.

This text is used by many researchers to criticize Halliday & Hasan's theory of cohesion. But the example is taken from oral communication and cannot be generalized to written discourse, which has its own specific characteristics. In this regard, the study of oral discourse is not going to contribute to the understanding of written discourse.

Nonetheless, many differences between speech and writing need to be taken into consideration when analyzing texts. First, oral communication provides the possibility for direct feedback, which in turn permits modifications and corrections. This is a condition that is not available in written communication. Second, speech is rapid in a way that does not allow any sort of planning, while written texts are the product of a whole process of composing which includes planning as the first step. Third, speech is usually accompanied by nonverbal signals that help the speaker communicate effectively even with a less explicit message, unlike the written message which needs to be explicit to be communicative. More importantly, written language is more complex than speech because of the use of longer sentences. Oral language tends to include incomplete sentences and a lot of repetitions; written language does not.

The above discussion demonstrates that an investigation of cohesion and coherence should be specific to the text mode, because these two important features of a text differ according to whether the text is an oral conversation or written prose. The following section deals with the two concepts in a detailed and comprehensive way to clarify the differences between them, and more than that, to investigate the type of relationship between them.

2.3. Cohesion vs. coherence

Cohesion and coherence are two qualities in text that distinguish it from a non-text. In standard usage they can be used interchangeably

because both mean “hanging together.” However, for many researchers cohesion is a text-related phenomenon, which is easy to measure. It is something that exists within the text and not in the reader’s mind. It is used to help the reader understand the relationships that exist within a text. Coherence, on the other hand, has to do with meaning. It is both a text-related and reader-related phenomenon. Obviously, the two terms can by no means be considered synonymous. They are independent, but intertwined. Thorough explanations of the terms are presented in the following sections.

2.4 Definition of Cohesion

Cohesion may be defined as the way in which a sentence is connected to its predecessors in a passage by means of some lexical items and grammatical features; it refers to the elements on the surface level of text that connect its parts and help it form a unified whole. For Halliday & Hasan (1976) it is achieved “when the interpretation of some element in discourse is dependent on that of another. The one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it”. They believe that the relation between these elements is semantic and not only syntactic.

Cohesion covers units beyond the sentence level, which form the basis for discourse studies. For Halliday & Hasan the semantic and syntactic links between pairs of elements in text are the major contributors to the text’s unity. Yet, to analyze cohesion in a text, the researcher should take into consideration the text itself, the pragmatic relations in it, and its purpose, because as Cox, Shanahan, and Sulzby (1990) indicate, cohesion analysis cannot accurately account for text coherence, if it is not related to text-dependent pragmatic relations that depend on the purpose of the text.

The following section presents Halliday & Hasan's (1976) taxonomy of cohesive ties, which constitute the starting point of many other taxonomies.

2.4.1 Cohesive ties

Halliday & Hasan (1976) introduced a taxonomy of cohesive devices which is divided into two categories; grammatical and lexical. Grammatical cohesive devices include reference (pronominal and demonstrative, comparative, and the definite article "the"); ellipsis (the omission of words previously mentioned in the text); and conjunctive cohesive ties, which bring together whole messages (Hasan 1984).

Reference: It is a semantic relation between two elements in text, one of which depends for its interpretation on the other. Two types of reference may be distinguished: exophoric reference and endophoric reference. Exophoric reference, which is also known as "situational reference," occurs when the thing referred to is a situation outside the text. Endophoric reference occurs between two elements in a text, when the meaning of one item referred to depends for its meaning on the meaning of the other item referred to. Halliday & Hasan consider only this item as cohesive since it contributes to "the integration of one passage with another so that the two together form the part of the same text"). This type of reference is the focus of Halliday & Hasan's work. It encompasses three types: pronominal, demonstrative, and comparative.

Pronominal Reference: It includes personal pronouns, possessive determiners, or possessive adjectives and possessive pronouns.

Demonstrative Reference: Its function is to locate the referent for identification. It is either circumstantial (here, there, now, then) or nominal (this, these, that, those and the).

Comparative Reference: Two types of comparison are distinguished: general or deictic and particular comparison. General or deictic

comparison expresses identity (same, equal, identical), similarity (such similar, so similar, likewise), or difference (other different else, differently, otherwise). The second type, particular comparison expresses quality and quantity, using adjectives and adverbs.

Substitution: It takes place when one linguistic item is replaced by another. It is considered a relation among words and phrases rather than a relation of meaning. There are three types of substitution which are defined grammatically: nominal, verbal, and clausal.

Ellipsis: Ellipsis is defined as “substitution by zero” (p. 142). It takes place when one element in a text, which is structurally necessary, is omitted, and is understood from the context. Like substitution, ellipsis entails three types: nominal, verbal and clausal.

Conjunctions: A cohesive device that guarantees the link between two linguistic elements; one is followed by the other. It is a grammatical relation that is subcategorized into four types: additives (and, also, moreover ...), adversatives (yet, though, but, however ...), causal (so, then, hence, because ...), and temporal (then, next, after that ...).

Lexical cohesion, which Halliday & Hasan do not discuss at length in their work in spite of its importance, will be discussed thoroughly in the following chapter in addition to other models of the category. The role of cohesive ties resides in connecting propositions in a text. They are used differently in oral and written communication. In oral texts, the referent may be absent and may be substituted for by the use of some external aids like gestures. These external aids, however, are not available in written texts. Consequently, in written texts the referent should be explicit.

Markels (1983) believes that cohesion is both a semantic and syntactic phenomenon. It is achieved when “a dominant term, explicit or implicit, occupies concurrently the most important semantic position in the paragraph and also the most important syntactic position in each

sentence in the paragraph”(p. 453). Dominance is a key word here, but for a term to be described as dominant it should consistently appear in the subject position. If it is repeated in each sentence but not in the subject position, it cannot be defined as a dominant term, and the cohesion of the paragraph is affected. In this sense, the cohesive ties and chains should be considered with reference to their syntactic position because syntax is also important as it helps readers remember the content of the text and identify the topic of a passage with the use of the dominant term.

Markels' findings are relevant to describe non-native English learners' writing. Anecdotal evidence suggests that learners tend to shift from one subject to the other with no purpose in mind. This is due to the fact that they cannot restrict the alternatives they have while writing, because they are not aware of them. Accordingly, teachers should raise students' awareness of the rhetorical function of the subject, and how its position affects the intended meaning of their writing and consequently its coherence.

2.5 Definition of Coherence

Coherence may be defined as a quality in text that enables the reader to make sense of it thanks to its organization according to some model of development. It refers to “those underlying semantic relations that allow a text to be understood and used” (Witte & Faigley, 1981). It is a complex concept, which has been subject to controversy among discourse analysts. Accordingly, two approaches to the term are distinguished, namely text-based and reader-based coherence.

2.5.1. Textual coherence

Coherence, according to the text-based approach, refers to the semantic unity of text that is achieved by means of cohesive ties (Halliday & Hasan, 1976). In other words, it is defined in terms of the linguistic features in a text that distinguish it from a cluster of sentences.

Halliday & Hasan use the word “texture” to refer to coherence. They state that “If a passage of English containing more than one sentence is perceived as a text, there will be certain linguistic features present in that passage which can be identified as contributing to its total unity and giving it texture” .

Halliday & Hasan (1976) define coherence as a property of text that distinguishes it from a non-text. It is achieved through linguistic features that contribute to the text’s unity. These linguistic features are the cohesive ties. A key word in the definition is “unity.” Coherence for Halliday & Hasan (1976) and Hasan (1984) is the property of unity, meaning that a text may be regarded as coherent when its parts hang together. For example, the sentence “The cow jumped over the moon” is considered coherent although it may not make sense, because as Hasan points out, “nonsense need not necessarily be incoherent” (1984). So, the coherence of the sentence is accounted for by non-structural relations, which make textual coherence a relative phenomenon and not a none-or-all one. That is, texts may be ranked from the most coherent to the least coherent.

This linguistic or textual analysis of coherence accounts for the text’s comprehension, which is achieved by means of the functions the different text features demonstrate. However, Halliday & Hasan do not claim that cohesion analysis is enough to distinguish between good texts and bad texts, effective texts and ineffective ones. They believe that it’s necessary to take into consideration the related concept of register, which refers to the non-textual, contextual information that the reader makes use of to understand a text.

The approach has two main assumptions. The first is that the number of cohesive ties in a text is sufficient to account for the coherence and comprehension of the text. The second is that these cohesive ties

facilitate comprehension in the sense that they minimize the cognitive effort required of the reader to establish relationships among the propositions and their functions. Tierney and Mosental (1984) consider these assumptions as flawed because the cohesive ties may not be explicit or may be used ambiguously.

Problems with the linguistic approach to coherence are also discussed in Maat (1998). He considers that the choice of the connections to be under analysis needs to be motivated, which is not a simple matter. For him, the approach naively assumes that the examination of connectives can be done spontaneously. Also, he sees it as being too reliant on the analyst's intuition. Yet, its focus on lexical choices to account for coherence relations provides a criterion for assessing the importance of relational distinctions.

The linguistic approach has also been criticized by many other researchers who think that coherence is achieved through the relationships among sentences and ideas in a text, both contributing to its rhetorical unity. Thus, analyzing the underlying propositional units in a text is more revealing than looking for cohesive ties. For a text to be coherent it should meet the following criteria: cohesion, organization (the orderly, systematic presentation of information) and register, which refers to situational consistency (Moe, 1979). In this respect, writers should present information in a well-organized way, and use the appropriate cohesive ties to create coherent texts and facilitate comprehension. This linguistic approach to coherence has a decisive advantage, according to Pander Maat (1998), which resides in its focus on the lexical possibilities offered by languages to distinguish among existing coherence relations. The following are two taxonomies, which have in common the text as the focus of analysis. The first is Fahnestock's taxonomy (1983), and the second is Hobbs' taxonomy (1983).

Fahnestock (1983) defines coherence as the quality enabling a reader to get meaning from a text thanks to paragraph organization which follows some model of development. A text may be described as coherent when its reader is able to move from one clause to the other without losing the meaning. So it is the writer's responsibility to bridge the gap between adjacent sentences through transition words, which may be marked or unmarked.

Fahnestock introduced a taxonomy of relations that can exist between sentences, which is further developed from Halliday & Hasan's works. It is divided into two types of relation; namely, continuative and discontinuative relations. The continuative relations include the following: sequence, restatement, exemplification, premise, conclusion, similarity, and addition. These relations can be understood without being marked with explicit transition words because they fulfill the reader's expectation. The discontinuative relations involve the following relations: replacement, exception, concession, denied implication, contrast, alternation, and anomalous sequence. These relations need to be signaled by explicit transition words because they are less expected by the reader, and hence less easily understood. In this regard, students should think about the kinds of connection to be used between sentences, keeping in mind that transition words are necessary only when the relation between sentences is unexpected. Above all, students have to learn how to use transition words appropriately. Fahnestock calls for bringing the students' attention to immediately adjacent sentences' lexical and semantic connections. This may be very helpful in the revision process to detect problems such as the misuse of a transition word, failure to mark a discontinuative relation, or an illogical ordering of sentences. The composition teacher may help his or her students generate paragraphs through giving them a starting sentence and a list of relations they can

subsequently use to create the paragraph. For Fahnestock, it is necessary to help students understand coherence through providing them with guidelines on the possible lexical ties and semantic relations between sentences, which can then be used consciously. Leaving this to the students' intuition is not always helpful because not all students have this intuition.

Hobbs (1983) states that coherence in this taxonomy is considered in terms of relations between segments of discourse, which match certain communicative work to be done. An utterance is regarded as coherent if there is a coherence relation that holds between the utterance and the preceding one. Hobbs (1983) compares coherence to the terms cohesion, relevance, and understandability. Cohesion and coherence, for him, cannot be used interchangeably although they both mean "hanging together." So, a text can be cohesive since its parts are connected by means of cohesive devices, but it may not be coherent because it may need more structure than just the superficial one. According to Hobbs, it is close in meaning to his definition of coherence. The last term, which is understandability, is considered insufficient for a text to be coherent. Individual sentences may be understandable, but they cannot be coherent if they contribute nothing to each other. Hobbs adopts the view that coherence has to do with topic unity. That is, a text is coherent if it continues to talk about the same thing. Also, a text should contain a set of coherence relations, each of which should serve a communicative function. It should convey a message, and the message should be related to the text's goals. The new and unpredictable in the message should be related to what the message receiver already knows, and the writer must guide the reader to make inferences about the intended meaning of the message. These are necessary conditions for a text to be considered coherent. Hobbs' focus is on spoken discourse;

however, his ideas about coherence may be applied to written texts. So far the text-based approach to coherence has been presented. The approach considers the text as the source of coherence. The text may be coherent if it is cohesive. That is coherence is the result of cohesion. This view was criticized for its inability to account for the role of the reader in the text's comprehension. As a result, the reader based approach to coherence emerged to account for coherence from a different perspective, which is that of human psychology. The following section is devoted to giving a thorough and detailed description of this approach.

2.5.2. Reader-based coherence

For the reader-based approach, coherence is achieved through the successful interaction between the reader and the text (Carrel 1982, 1984). That is, the reader is able to reconstruct the writer's meaning on the basis of the information and strategies he/she brings to the comprehension process and the text's cues. According to this approach, cohesion is a result rather than a cause of coherence, and coherence is determined by the reader's text knowledge and word knowledge (De Beaugrande and Dressler, 1981; Morgan and Sellner, 1980). This approach is accounted for by schema theory, which will be discussed in the following section.

2.5.3 Schema theoretical view of cohesion and coherence

The cohesive view of coherence has been criticized by the schema theory approach to reading and writing. This section is devoted to an overview of the schema theory and its application to research on cohesion and coherence.

Schema refers to a mental framework developed on the basis of past experiences that helps individuals acquire new facts and make sense of them. Schema theory appeared as an approach to information processing coming from research in cognitive science in the 1970s.

Schema theory considers text comprehension as an interactive process that includes both the text and the reader. The reader processes the text by using the appropriate schemata. Carrell (1982, p.482) argues that "Schema theory maintains that processing a text is an interactive process between the text and the prior background knowledge or memory schemata of the listener or reader." The following is an overview of the schema theoretical view of cohesion and coherence.

Cohesion, according to schema theory, is a result rather than a cause of coherence. It derives from the reader's text knowledge and world knowledge (De Beaugrande and Dressler, 1981; Carrell, 1982; Morgan and Sellner, 1980). It resides in the content which has linguistic consequences, meaning that the use of cohesive ties is an effect rather than a cause. For Morgan and Sellner (1980, p.179), "The source of coherence would lie in the content, and the repeated occurrences of certain words would be the consequence of content coherence, not something that was a source of coherence." Tierney and Mosental (1981) point out that cohesion is causally unrelated to a text's coherence and that the topic or content has an effect on the options a writer has for using cohesive devices. Coherence, according to schema-theory, is achieved by means of a successful interaction between the reader and the text (Carrell 1982). In other words, the reader gets meaning from the text according to the schemata he/she activates and the expectations he/she has. The writer and the reader are expected to share content and formal schemata which lead to the coherence of the text. These schemata and expectations are modified until they become consistent with the text's structure or content (Carrell, 1985). The same view is adopted by De Beaugrande & Dressler (1981). For them, "a text does not make sense by itself, rather by the interaction of text-presented knowledge with people-stored knowledge of the world" (p.6). In this respect, a text is made of a continuity of senses

which contribute to its coherence. To sum up, schema theory was introduced to account for reading comprehension as an interactive process between the reader and the text. The reader makes sense of the text according to his/her background knowledge or the schemata he/she activates. Coherence for this approach is the basis of cohesion, which is considered as a linguistic consequence. The following section deals with second language learning from a schema theoretical perspective.

2.5.4 Schema theory and second language learning

Carrell (1982) criticizes the notion of cohesion as a measure of coherence. As she points out, “If a reader does not have, or fails to access, the appropriate schema underlying the text, all the cohesive ties in the world won’t help that text cohere for that reader” (p.485). She considers cohesion theory as far from being the solution to ESL reading and writing problems since textual analysis techniques are not revealing when it comes to the assessment of coherence. In this regard, teaching cohesion does not guarantee the coherence of text because cohesion is the effect of the coherence of the content not the other way round. Carrell believes that cohesion studies are necessary, but they are not sufficient. Broader and more powerful theories, which involve the reader, the writer, and the text, are needed. Carrell (1984) responds to this criticism through demonstrating the importance of an interactive view of text analysis, refuting Rankin’s assumption that active imitation can improve acquisition, meaning that it can help learners produce texts that are not only cohesive but also coherent. She adopts De Beaugrande and Dressler’s definition of text as an interactive, communicative occurrence, of which cohesion is only one element. She recognizes the importance of enriching the learners’ vocabulary repertoire and their background schemata to enable them to produce and process texts adequately: “We might also profitably focus on vocabulary development and the

enrichment of the student's background schemata to which the lexical items refer".

So far, two approaches to coherence have been presented. First, the text based approach, which considers cohesion as the basis for coherence, and that for a text to be coherent, it should contain a number of cohesive ties which link sentences and ideas. Second is the reader based approach which deals with cohesion as the result of coherence. Although the two approaches may seem contradictory, they actually complement each other.

2.5.5. Coherence and connectedness

Sanders and Pander (2006) relate coherence to connectedness. They consider the traditional approach to this phenomenon, which focuses on the overt linguistic elements and structures to account for text structure, as not necessary for the interpretation of an utterance like: *The winter of 1963 was very cold, many barn owls died.* The example can represent a major problem for the cohesion approach, because it may be interpreted easily without the need for overt linguistic signals and refutes Halliday & Hasan's claim. Also, the use of inferences to understand a text is necessary, especially when the type of text requires that. These inferences are sometimes based on world knowledge. In this sense, the cohesion approach to connectedness is considered inadequate since the latter has to do with the construction of the mental representation of the text. Thus, coherence and connectedness may be used interchangeably, and they are established when language users actively relate the different information units in a text. For Sanders and Pander, coherence is a cognitive phenomenon that needs to be restructured on the basis of linguistic signals in the text. It is divided into referential coherence, which has to do with devices such as pronouns and demonstratives, and relational coherence, which has to do with connectives and other lexical

markers of relations. Relational coherence is also referred to as rhetorical relations (Mann and Thompson, 1988).

2.5. 6. Coherence and non-coherence

Coherence for Enkvist (1977) extends beyond the sentence level. It is achieved when “syntax, semantics and pragmatics are in order”. He discusses the factors that make a text non-coherent in terms of cross-referential and co-referential ties. There is a cross-referential relation between the words whistle, shoot, and goal since they belong to the same context: a football match). There is a co-referential relation between words when words or expressions have the same referent. Such ties can be seen between sentences and the incorporation of these factors into a text model. He introduced the term pseudo-coherence, which “arises when the formal cohesive links on the textual surface fail to reflect an adequate underlying semantic coherence in terms of textuality and contextuality”. This means that the surface textual ties cannot make a text coherent if it has no underlying semantic unity. Accordingly, sentences can be connected in two ways: through surface cohesion and through underlying semantic coherence.

Enkvist introduced a classification of non-coherence which falls into three broad categories:

a) When there is syntactic evidence of non-reference, that is, a lack of formal agreement in number, gender or case. For example, Do you know John Smith? She came to see Peter? This sentence is considered deviant because there is no agreement in gender between “she” and “John.”

b) When there is clear pragmatic evidence of non-coherence.

c) When there isn't any clear evidence of non-coherence nor any clear evidence of coherence.

Basically, every sentence in a paragraph should have a cross-reference to at least one other sentence, and the whole text should have an overall

coherence. This coherence is achieved when the text abides by coherence rules. That is, every text unit (paragraph) should have a topic sentence. Also, the paragraphs are connected when they have a common topic or headline, and this is the familiar structure.

2.5. 7 Issues on coherence in ESL students' writing

Khalil (1989) used Grice's maxims of relevance, quantity, and manner to assess the coherence of 20 compositions written by Lebanese freshmen. The results of the study reveal that good writers tend to elaborate on the main topic through providing examples. They were able to link the subtopics to the main topic through using cohesive ties successfully. The weak writers, on the other hand, were unable to provide specifics and clear generalities. They could not elaborate on the topics and subtopics introduced, which contributed to the incoherence of their writings. Khalil concluded that a problematic feature of Arab students' writing is insufficient information about the assigned topic. This problem with coherence has a great influence on students' writings.

2. 6. Lexical cohesion in written discourse

Lexical cohesion has received long overdue attention in the work of many researchers concerned with the issues of cohesion in writing. The pioneering work in this field is Halliday & Hasan's *Cohesion in English*, but the two researchers gave little space to lexical cohesion in their book, in spite of its importance. Yet many other researchers took the work as a starting point to develop more comprehensive models of analysis. This chapter reviews the concept of lexical cohesion and lexical cohesion analysis, and also presents different models of analysis.

2. 6.1. Single word unit versus multi-word unit

The orthographic word has been the unit of lexical cohesion analysis for a very long time (Sinclair, 1998, p. 2). The term lexical item was used to refer to the single word (Halliday, 1985; Martin 1992). The

single word has had an important place in lexical analysis for two reasons. The first is the dictionary in which the word is used for practical reasons. The second is its function as the basis of lexical components in transformational grammar (Sinclair, 1998, 2004). However, the notion of the single word as the basic unit of lexical cohesion analysis has been criticized by many researchers for the simple fact that lexical cohesion is dynamic and cannot be analyzed on the basis of orthography, which is highly conventional. Phrasal verbs and idioms, for example, constitute one lexical item. But they cannot be dealt with as single orthographic words as they will lose their meaning. Also, some phrases, like *cultural determinism*, may be considered a single unit since the co-occurrence of the two words restricts the meaning of the word cultural and relates it to the whole unit (Tanskanen, 2006). To sum up, lexical units are interpreted according to the context in which they are used. Martin's view is adopted in this study, taking into consideration the fact that lexical relations may be realized by either a single lexical item or by multiple lexical items (Martin, 1992). The following section discusses the contribution of lexis to text

Organization.

2. 6.2. Lexis and text organization

Lexis and text are closely interrelated. For many discourse analysts, lexis functions as an indicator of the macro-structure of text. Salki (1995) points out that repeating key words and content words may be enough to construct a coherent text. This repetition, however, may seem boring to the reader. In this respect, the use of synonymy may be more appropriate since it adds variety to the text. Salki introduced the term synonym with word class change, which refers to synonyms which do not share the same part of speech or word class. Some synonyms, also, differ in terms of their level of formality, and cannot be found in the same text. An

example is the expression *minions of the law* (formal register) and *cops* (colloquial register). Accordingly, substituting a word belonging to one register for a synonym belonging to a different register may have a strange effect. General word, which may also be referred to as superordinate, may also be used instead of repeating the same word or using synonyms. The usual pattern in text is to use an expression with specific meaning first followed by one with general meaning.

2. 6.3. Lexical cohesion

Lexical cohesion is the unity achieved through the selection of vocabulary. It concerns the way in which lexical items are related to each other to create continuity. This category of cohesion is subjective because it relies on the reader's perception of the lexical relations which are difficult to classify (Morris, 2004). It is one of the most vulnerable areas of cohesion theory" (Carrell, 1984). However, despite its importance in discourse analysis, it is difficult to create a comprehensive and replicable model of analysis.

2. 7. The place of lexical cohesion in text analysis

Many researchers recognize the importance of lexis in the creation of continuity in text (Hasan, 1984; Hoey, 1991). In this regard, lexical cohesion is considered a key factor in creating and interpreting discourse (Morris, 2004). As Sinclair points out, "the tools for lexical analysis remain unrefined, while grammar has gone through many stages of sophistication" (1998, p.3). This implies that researchers have given more attention to grammatical cohesion than to lexical cohesion since the analysis of grammatical cohesion is simpler than that of lexical cohesion, whose complexity comes from the flexibility and richness of lexis. (Hoey ,1991, p.10) on the other hand, argues that some patterns that are likely to occur in some contexts may be determined to make some generalizations. He considers lexical cohesion "the only type that forms multiple

relationships”. That is, one lexical item can form more than one relation with other items. In this respect it is the main contributor to textual coherence, since it accounts for more than 40% of cohesive ties (Hasan, 1984, Hoey, 1991). Mahlberg (2006) adopts the same view and considers cohesion as a fundamentally lexical phenomenon.

2.7.1 Lexical cohesion analysis

Different variables of analysis

Some studies on cohesion analysis have been made on Halliday & Hasan’s system. Different models of analysis have been developed on the basis of this model. An overview of some of these models will be dealt with in the following section. In this section methods of cohesion analysis are discussed. The majority of the empirical research on cohesion used Halliday & Hasan’s taxonomy to count cohesive ties in students’ essays to investigate the relationship between the learners’ use of cohesive ties, the coherence of the texts they produce, and the quality of their writing. Different researchers used different variables in their analyses. Tierney and Mosental (1984) used particularly interesting variables to investigate cohesion relations in students' essays, including the ratio of pronouns and lexical ties to total ties, and the ratio of temporal conjunctives to total conjunctive ties. The students' familiarity with the topics introduced is another variable in the study. Cherry and Cooper (1980) introduced the variable of the average distance of ties, the number of intervening T-units between the coherer and the precursor, to analyze average and superior writers’ essays at grades 4,8,12, and college, in addition to the relative dispersion of ties in the essays. Pitchard (1980), as cited in Neuner (1987), used three different sets of variables:1) average number of ties per 100 words, 2) frequency of ties per 100 words, 3) frequency of ties per T-unit. Witte & Faigley used a simplified list of ties to analyze five good and five poor freshman essays. They counted the ties per 100T-units.

Neuner (1987) provided a more expanded analysis using a long list of ties as one variable. Other variables used were the relative distances between coherers and precursors, the mean length of cohesive chains, and the diversity and maturity of vocabulary within chains.

2.7.2 Reiteration

Halliday & Hasan define reiteration as “a form of lexical cohesion which involves the repetition of a lexical item, at one end of the scale; the use of a general word to refer back to a lexical item, at the other end of the scale; and a number of things in between” the use of a synonym, near-synonym, or super ordinate” (1976, p. 278). Reiteration involves the repetition of a lexical item, as the same word, or as a synonymy, specification, co-specification and contrast. Reiteration is seen as simpler and easier to identify in text than collocation since it is more systematic. Many studies, in fact, used just reiteration relations and excluded collocation relations from the analysis of lexical cohesion. These studies cannot be considered incomplete since most of them contributed to our understanding of lexical cohesion. But they are not comprehensive. In this respect analyses based on reiteration classifications and collocation are needed to fill in the gap left by previous studies. This study based on reiteration and excluded collocation too.

2.7.3 Cohesion analysis and the text’s length

The effect of the text’s length on cohesion analysis has been brought up by Neuner (1987). He believes that students who write longer texts get more opportunities to use cohesive ties, which means that the text’s length affects the number of cohesive ties, and consequently the validity of the analysis. For Halliday & Hasan (1976) the analysis starts from the first word in the second T-unit. The word in this T-unit may function as a coherer and therefore as a potential cohesive link to a precursor in preceding T-units. Witte & Faigley(1981). Witte and

Faigley, and Neuner's findings, that good writers use cohesive ties twice as densely as poor writers, for being attributable to the fact that good writers write longer essays.

2.7.4 Lexical cohesion in first language and foreign language writing

The effect of a first language on ESL/EFL learners' writing has been thought of as something negative. Yet many research studies claim that this effect may be positive in different ways. Writing skills and strategies may be transferred to the target language, which helps student writers while in the process of composing. This implies that high language proficiency does not predict writing proficiency. That is, there is not a one-to-one relationship between the learners' mastery of the language and their ability to write coherent and cohesive texts. In this respect, writing problems may be related to some factors other than language. One reason may be the students' inability to produce cohesive texts in their native language, and to see the text as a whole while focusing just on the semantic relations among sentences. Also, learners may not know how to organize their paragraphs.

Kafes (2012) used Halliday & Hasan's taxonomy (1976) to look into similarities between the reiteration cohesive ties used by Turkish learners of English in their writings in Turkish and English. He worked on accounts of a story written by forty intermediate students in both languages. The focus was mainly on repetition, synonymy, or near synonym. The objective was to investigate the Turkish learners' use of lexical reiteration while writing in English and Turkish, to shed light on the relationship between the learners' employment of lexical reiteration in these two languages. The results of the study reveal striking similarities between the English and Turkish essays in terms of the cohesive ties used. Turkish learners of English use repetition more compared to their use of super ordinate, synonyms, or near-synonyms in both languages,

English and Turkish. 70% of the lexical reiteration in the English essays consists of repetition and over 55% in the Turkish essays. These results are compatible with those found by Connor (1984) and Khalil (1989)

2.8 Issues on lexical cohesion

The problems with lexical cohesion are two-fold. The first is distance between cohesive ties, and the second is exophoric reference to prior knowledge. According to Coupland (1986), the greater the distance between the cohesive ties, the more difficulty the reader has to make semantic links and identify cohesion and coherence. Also, the lack of prior knowledge represents a problem for the reader attempting to decipher the meaning of a text. But for Kafes (2012) the problem of lexical cohesion is merely a question of awareness. Explicit instruction on the lexical ties and consciousness raising training could be predictors of success for the learners' use of cohesive ties in writing. Another issue concerns the analysis of lexical cohesion. Many researchers concur that a simple count of cohesive ties is not sufficiently revealing when distinguishing good from poor writing (Hartnet, 1986; Neuner, 1987; Parsons, 1990). Parsons (1990) and Wessels (1993) believe that a high number of cohesive devices do not result in a high quality of coherence. That is to say, readers do not find that the amount of cohesion in a text is significant for its perceived coherence.

2.9 Lexical cohesion studies on Arab learners of English

Many research studies have been carried out on EFL Arab learners' writing to account for their use and misuse of lexical cohesion. McGee (2012) focuses in his paper on reiteration, excluding collocation from his study, to analyze an essay written by a Saudi Arabian intermediate student, studying at a Saudi university. He finds that the student uses too much repetition. This is attributed to the influence of his mother tongue,

which is Arabic, because repetition is an aspect of Arabic rhetoric. Other possible causes could be that EFL students tend to write in a spoken register and that the texts they are exposed to are oversimplified and therefore less rich in their lexical cohesive ties. Moreover, the lack of variety in students' writings may have to do with the fact that they do not know many different ways to say what they want to say, especially the elementary students. McGee indicates that unnecessary repetition may be avoided if students are aware of this issue. Another problem the researcher brings up is the misuse of complex repetition (the use of derivational forms of a word). Usually, word derivation lists are included in EFL books. However, they are used merely as grammatical forms, not as lexical cohesive ties.

Bacha, Cortazzi, and Nakhle (2002) used Hoey's model (1991) to investigate two aspects of lexical cohesion in Lebanese students' expository writings, namely, repetition of links occurring in the texts under study and the distance between these links. The results of the study indicate that simple lexical repetition, at 77% in both the high and low rated essay, has the highest proportion among all lexical cohesion. The difference, however, between the two levels is that the low rated texts indicate more simple repetition links in adjacent sentences, while the high rated ones indicate repetition over longer distances.

Khalil (1989) analyzed cohesion in twenty compositions written by Lebanese freshmen students at Bethlehem University, using Halliday & Hasan's model (1976). A high percentage of lexical reiteration and a low percentage of lexical collocation were found in the students' essays. Yet, approximately all the lexical reiteration ties were repetitions of the same lexical items. This result was expected because, according to Khalil, Arab learners have a "tendency to repeat words and phrases in a discourse strategy of religious and literary written Arabic" (p.363).

2.10 Lexical cohesion in language teaching and learning

Lexical cohesion should play an important role in language teaching, as readers and writers should be conscious of the cohesive links that contribute to the production and comprehension of meaningful texts. Learners can develop a native-like competence with text comprehension and production only through an appropriate use of cohesive devices. As Cook (1989) points out, “Cohesion between sentences is too easily seen as an aspect of language use to be developed after the ability to handle grammar and words within sentences.” (p.127) Textbooks, however, consider cohesion as fundamentally grammatical. They restrict the teaching of cohesion to a list of words and phrases (conjunctions) that help learners connect sentences. ESL composition teaching for Ferris (1994) typically focuses on global organizational or rhetorical patterns and specific mechanical errors (grammar, spelling, punctuation). For her, students should be trained on the correct word choice, diversity in lexical and syntactic features, and the use of cohesion and coherence devices. This implies that micro-level instruction for her is more significant. Connor (1984), in the same vein, recommends the teaching of lexical features that are prevalent in good native speakers’ writing.

McGee (2012) suggests minimizing the learners’ use of repetition, through encouraging them to use synonyms or near synonyms. Yet, this may not be enough for learners’ success if they do not comprehend how these types are different. As McGee pointed out, “Simply encouraging students to use synonyms for key words in their writing, rather than repeating them, is, in effect, an invitation to commit semantic suicide” (p.215). In addition to that, providing students with a list of synonyms may lead them to wrongly understand that certain words may always be used interchangeably. Concerning the use of the superordinates, although

they receive little attention in the classroom, students are able to use them successfully. But the writer does not give any explanations for that.

2.11 Difficulties in teaching lexical cohesion

Lexical cohesion hasn't received enough attention in language teaching. Actually, teaching lexical cohesion is related to teaching vocabulary, but teachers leave vocabulary learning to the students' initiative. This results in problems with the use of lexical cohesion. Moreover, teachers consider lexical cohesion as difficult to teach since textual analysis is time-consuming and less manageable than introducing grammatical cohesive devices, whose number is limited. Lexical cohesive devices are less easy to group into categories because their number is infinite, and textbooks describe lexical cohesive ties through restricted and selected examples (Mahlberg, 2009).

2.12 Models of lexical cohesion analysis

Halliday & Hasan developed a model of cohesion divided into two categories: grammatical cohesion and lexical cohesion. The latter is given little space in the book although the writers acknowledge its importance in the creation of text. "However luxuriant the grammatical cohesion displayed by any piece of discourse, it will not form a text unless this is matched by cohesive patterning of a lexical kind" (p. 292). They divide it into two general categories: reiteration and collocation. Reiteration is a form of lexical cohesion which is manifested through repetition, synonymy, near synonymy, antonymy, superordinate and general word use.

Table one summarizes these relations:

Table 1: Halliday & Hasan's Categories of Reiteration

Categories	Examples
Repetition	Mushroom – Mushroom
Synonymy	Climb – Ascent
Near synonymy	Brand – Sword
Superordinate	Car – Jaguar
General class	Vehicle – Car

This category of lexical cohesion is more straightforward than collocation, which is “the association of lexical items that regularly co-occur”(p.284). This definition is actually vague because the association referred to is achieved when some lexical items tend to occur in similar lexical environments or when the relation between them is lexicosemantic; for example, boy and girl are cohesive because they are opposites, but laugh and joke or boat and row are related because they are “typically associated with one another”(Halliday & Hasan, 1976, p. 284). Hoey has criticized Halliday & Hasan's collocation category, and has called it a “ragbag of lexical relations.” (1991a:7).

2.13 Criticism of Lexical Cohesion

Halliday & Hasan's model has also been criticized by many other researchers. Stotsky (1983) introduced a modified version of Halliday & Hasan's framework to analyze lexical cohesion in expository prose written by able writers. She criticized Halliday and Hasan's scheme for having two major flaws. The first is its lack of comprehensiveness in accounting for other forms of writing since it focuses only on literary works and conversations. The second is its lack of attention to the use of derivatives and derivational elements, which are considered a sign of

lexical maturity and stylistic flexibility, and therefore “should be considered as a distinct and separate way to create text forming relationships” (p.433). For example, the words *nominal*, *nominalize*, and *nominalization* are considered as one lexical item. This may cause some difficulties in analysis. Other examples, like influence/counter-influence and efficiency/inefficiency, are examples of opposition not repetition in spite of sharing the same meaning-bearing suffix. Stotsky points out that the use of derivations in expository writing is an index of growth. It is very informative when assessing development in writing since it serves two purposes: “preciseness in meaning and conciseness in expression” (p.433). Stotsky has also criticized Halliday & Hasan’s distinction between reiteration and collocation for being theoretically unjustified. An example is considering synonymy as a form of reiteration and antonymy as a form of collocation. Stotsky’s model will be discussed in the following section.

Some research studies were conducted to test the validity and reliability of Halliday & Hasan’s cohesion theory as an index of coherence and writing quality. Different results were obtained. Some researchers detected a positive correlation between cohesion and coherence and writing quality (Witte and Faigley, 1981). Tierney and Mosenthal (1983) found that cohesive ties were pervasive in all texts produced by 12th grade students. Yet, cohesion was causally unrelated to coherence. They subsequently repudiated Halliday & Hasan’s theory as a measure of writing quality. They also criticized the different studies which were based on Halliday & Hasan’s taxonomy for oversimplifying the concept of cohesion and using a simple count of cohesive ties as an indicator of writing quality. Scarcella (1984) points out that “it is the appropriate fit of these devices to the context and their distribution throughout a text which determines their effectiveness” (p.112), not the

frequency of cohesive devices in a text. Harnett (1986) supports Scarcella's claim and indicates that "simple counts of either types of instances of all cohesive ties cannot be a completely effective index of the quality of prose"(p.151), and that "both good and poor writers may use the same kinds of cohesive ties, but they use them differently"(p.143). Other researchers believe that what distinguishes cohesive texts from non-cohesive texts is the distance between lexical ties. In other words, high rated essays have more cohesive linkage over longer distances of text than do low rated texts (Hoey, 1991; Neuner, 1987; Parsons, 1991; Halliday & Hasan, 1989).

2.14 Other models of lexical cohesion analysis

Halliday & Hasan's model is considered the starting point for many research studies on lexical cohesion. Some researchers developed models with simplistic categories. Others introduced complicated models of analysis with categories and sub-categories of relations that are impossible to apply to long texts.

Stotsky's model (1983) is composed of two major categories: semantically related words and collocationally related words. The semantically related words have a stable relationship in the language regardless of the frequency of their co-occurrence; for example, antonymy, synonymy, subordinate/ superordinate, ordered or unordered sets, and derivation. The collocationally related words are topic related. They contribute to the development of the topic. In other words, the number of collocational ties used by writers is associated with their ability to elaborate on major ideas. Stotsky considers content words as the major contributors to cohesion in academic discourse. However, they depend for their interpretation on the reader's prior experience with them. In brief, the semantically related words category depends on the reader's knowledge of the words' meanings to determine their cohesive power.

The collocationally related words category depends on the reader's reading experience. Stotsky points out that her model can be used to analyze not only expository writings but other forms of discourse as well.

2.15 Cohesive Harmony

Hasan (1984) introduced a more developed version of lexical cohesion, which goes beyond seeing cohesive ties as isolated instances. According to her, the degree of coherence is not affected by the numerical and categorical variation of cohesive ties. She uses the term "cohesive harmony" to refer to the interaction of chains of cohesive devices. This interaction is "in direct correlation with the degree of coherence in a text, so that it can be claimed that the greater the cohesive harmony in text, the greater the text's coherence" (p. 216).

She classified the grammatical and lexical cohesive ties into semantically based cohesive chains: a) identity chains and b) similarity chains. Before going into more details about Hasan's classification, let us explain what a chain means. Hasan defines a chain as a set of items that are inter-related by semantic relations of co-reference, co-classification, or co-extension. Two or more items are related by means of co-referentiality if they have the same referent. Two or more items are related by means of co-classification if they do not have the same referent but belong to the same class. And two or more items are related by means of co-extension if they belong to what Hasan calls "the general field of meaning." The items in an identity chain are related by co-reference, while the ones in a similarity chain are related either by co-classification or by co-extension. Similarity chains are established outside the text since they are based on the reader's knowledge of vocabulary and knowledge of the world. Hasan uses the concept of "chain interaction." It occurs "when two or more members of a chain stand in an identical functional relation to two or more members of another chain" (Hasan, 1984, p. 212).

She integrates the lexical and grammatical cohesive patterns of the text "so that they are seen neither as just lexical nor as just grammatical, but have a status by reference to their potential function in the text" (Hasan, p. 211). In this respect, she emphasizes the similarity in function of some lexical and grammatical items.

Chain interaction, for Hasan, is the basis of coherence. Within each chain there are elements, which are part of it and are called "relevant tokens." However, elements which are not part of a chain are called "peripheral tokens." Hasan (1985) claims that the lower the number of peripheral tokens, the greater the coherence; the higher the proportion of central to non-central tokens, the greater the coherence; the fewer breaks in interaction chains the greater the coherence (p.93). Hence, "variation in coherence is the function of variation in the cohesive harmony of a text" (p. 94). A chain is also composed of elements, which either interact and are termed "central tokens," or do not interact and are termed "non-central tokens." Hasan's cohesive harmony was subject to criticism by many researchers.

In her model, the collocation category is excluded because of its inter-subjective nature. Yet, she deals with some of the collocation relations investigated in the earlier study under new headings. The model is divided into two categories: general and instantial. The general category involves the repetition relations and other relations that can be explained by the general semantic system of English, such as synonymy, hyponymy, meronymy, and antonymy. Some collocation relations are considered under the general category; for example, go and come are no longer considered as collocates; instead they are treated as antonyms. The items that cannot be explained by the general category are excluded from the analysis. However, Hasan's model is applicable just to narrative discourse (Parsons, 1990; Hoey, 1991).

2.16 Critiques of cohesive harmony

Many empirical studies were carried out to test the validity of Hasan's theory of cohesive harmony. Friedman and Sulzby (1987) argue that Hasan's cohesive harmony has many limitations and pitfalls. First, although it offered an analysis of representation unity of text clauses, it failed to account for other sources of representational unity, such as pragmatics and the macrostructure of text as well as the clausal order and redundancy in text content. Cox, Shanahan, and Sulzby (1990) claim that when analyzing cohesive harmony in texts, researchers should be conscious that the clauses in a text may not be well ordered, and yet this will not affect the cohesive harmony index. Also, cohesive harmony analysis does not take into account the redundancy in a text. That is, if a sentence is repeated in a text, it increases the cohesive harmony score.

Halliday's model of lexical cohesion (1985) is divided into three categories: repetition, synonymy, and collocation. Repetition is adopted from cohesion in English. Under the category of synonymy, Halliday includes a number of relations which are considered variations of synonymy, like synonymy "proper"(sound/noise), superordinate (blackbirds/birds), hyponymy (tree/oak), meronymy (trunk/branch), and antonymy (awake/asleep). Halliday's modified form of collocation is smaller than the one in *Cohesion in English* because some of the relations in this category are included within the synonymy category. He refers to this category as a "co-occurrence tendency." He points out that "collocation is one of the factors on which we build our expectations of what is to come next" (Halliday, 1985, p. 312-313).

Hoey's model of lexical cohesion focuses on the text forming properties of lexis. A text's degree of cohesiveness for him is measured by the various lexical relationships between sentences since the significance of the cohesive ties resides in their combination and not in

their occurrence in isolation. He uses the term "link" instead of "tie" because in his analysis, he excludes sentence conjunctions and collocation. His analysis is based on counting repetition links between different sentences in a text.

Within this model, four categories are included: simple lexical repetition, complex lexical repetition, simple paraphrase, and complex paraphrase. Hoey's classification is similar to Hasan's (1984) in the sense that they both exclude collocation from their analysis.

2.16.1 Simple lexical repetition

Simple lexical repetition occurs when a lexical item is repeated with no grammatical changes (bear/bear/bears). The repetition of grammatical items is excluded because such repetition is not significant when it comes to the relatedness of sentences. However, this notion is problematic because one word may have more than one meaning.

2.16.2 Complex lexical repetition

Complex lexical repetition occurs when two lexical items share a lexical morpheme, but are not formally identical, or when they are formally identical but have different grammatical functions (drug/drugging and human/humans). Some grammatical ties, such as personal and demonstrative pronouns, are included in the category of lexical repetition because they have the function of saying something again. However, they are not given enough attention since in non-narrative texts only lexical links contribute to a text's cohesive organization.

2.16.3 Simple paraphrase

Simple paraphrase occurs when a lexical item substitutes for another with no change in meaning (produce/ cause; sedating/tranquilized/drugging). This category is similar to Hasan's category of synonymy.

2.16.4 Complex paraphrase

Complex paraphrase is described by Hoey as a "can of lexical worms" (p.64) for its confusing nature. Examples may be more useful to describe how this category works: "Imagine that we have three words in a text, hot, cold and heat: then if hot and heat form a complex repetition link, and hot and cold form an antonymous paraphrase link, then cold and heat will form a complex paraphrase" (Hoey, 1991, p. 65). Within the complex paraphrase, Hoey includes some relations which are considered collocation by Halliday & Hasan. Hoey's model includes other categories, namely, substitution (*a drug/it*), co-reference (*Mrs Thatcher/the Prime Minister*), ellipsis (*a work of art/the work*), and deixis (*the works of Plato and Aristotle/these writers*). His classification is similar to Hasan's (1984) in terms of their exclusion of collocation from their analysis.

For Martin (1992) lexical cohesion contributes to the ideational (semantic) structuring of discourse. Accordingly, it provides an idea about how lexemes are organized in the discourse. The model divides lexical cohesion into three categories: taxonomic, nuclear, and activity sequence relations. Taxonomic relations are similar to the general category of Hasan (1984) and the synonymy relation of Halliday (1985). They include repetition, synonymy, hyponymy, co-hyponymy, meronymy, co-meronymy, and contrast. The categories of nuclear and activity sequence relations are a modification of the collocation category of Halliday & Hasan (1976) and Halliday (1985). Nuclear relations refer to the ways in which actions, people, places, things and qualities, configure as activities; for example, *Ben serve ace*. They consist of elaboration, extension, and enhancement. Activity sequence relations take place when "the nuclear configurations are recurrently sequenced in a given field." For example, *Player serves, opponent returns*.

This example demonstrates the problematic nature of this taxonomy because it displays that taxonomic relations (in this example, player and opponent are hyponyms) and activity sequence relations may be intertwined. Another problem is that using activity sequenced relations makes almost all the elements in a particular sentence or utterance related. This may make the analysis complicated.

All in all, although Martin has added new categories that provide detailed analysis of lexical cohesion, his analysis is not appropriate to analyze longer texts.

2.17 Categories of lexical cohesion

In her book, *Collaborating towards Coherence*, Tanskenen reports on different models of lexical cohesion analysis, namely Halliday & Hasan, Hasan (1984), Halliday 1985/1994, Morris and Hirst (1991), Hoey (1991), and Martin (1992). She concludes that the similarities among the models of analysis outnumber the differences, which are only slight. A case in point is Morris and Hirt's model which seems to encompass fewer categories, but includes the same relations as the ones in the other models. All the models include the reiteration relations: synonymy, hyponymy, antonymy, and meronymy although they may appear under different terminologies. Collocation is evident in fewer models, and it is just partially included in Hoey's model. However, it has to be included in the analysis to complement it in spite of its problematic nature.

Tanskanen's focus is on both intra-sentential and inter-sentential cohesion. Her taxonomy is divided into two categories: reiteration and collocation.

Reiteration

1. Simple repetition
2. Complex repetition
3. Equivalence

4. Generalization
5. Specification
6. Co-specification
7. Contrast

2.17.1 Simple and complex repetition

Simple repetition takes place when an item is repeated either in an identical way or with some slight grammatical change like singular/plural, present tense / past tense. Complex repetition occurs when items are identical, but serve different grammatical functions, or may not be identical but share a lexical morpheme. Examples of simple and complex repetition are evident in the following passage taken from a mailing list that Tanskanen uses in her illustration of the two terms.

Rosie, one option for dealing with any conflict of interest with a student in your class is to ask a colleague who is familiar enough with the subject and your expectations to grade the student, or at least review with you the grade you give. (p.50)

In this example, simple repetition occurs with the repetition of student, and complex repetition occurs with the repetition of grade. The pronouns your / your, your / you / you used in the passage are all examples of simple lexical repetition. Actually, Tanskanen includes in her analysis the repetition of pronouns as part of lexical cohesion because as Hoey (1991) claims, it is very similar to genuine lexical repetitions. However, she excludes homonymic repetitions from her analysis because they cannot contribute to cohesion since they cannot be contextually related.

Equivalence

Tanskanen borrowed the term equivalence from McCarthy (1988) to refer to synonymy. This choice is motivated by the fact that her analysis starts from the text under study, trying to identify the items that

are related in that particular text, and not from ready-made classifications. In this sense, McCarthy's conception of discourse-specificity is considered of great importance. He distinguishes between two approaches to lexical analysis: namely, a lexical-semantic and a discourse-specific approach. The lexical-semantic approach is concerned with the "meaning potential" of items, whereas the discourse-specific approach is concerned with the "communicative potential" of items. Accordingly, using the latter is very important to account for relations that are not real synonyms, but which function as such in the context of a text. The meaning of the lexical items is constructed and controlled by the context in which they appear. Tanskenan uses the following example to explain a problematic case that the discourse-specific approach can solve: "We are pausing on the road for no other reason than that we have been bounding ahead so rapidly and could all do with a breather." (p.56).

The relation between pausing and breather cannot be considered a synonymous relation because these words belong to different word classes. Yet, the relation cannot be left unclassified since the words "a pause" and "a breather" are synonyms.

Generalization

Generalization in other studies is also referred to as superordinate, hyponimic relations, or inclusion: specific-general (McCarthy).

The following is an example:

Gordon: If Labour get in and they can't fulfill their promises. . .

Audrey: Well, I can't well I mean there's an awful lot, I mean would, no matter which political party it is, they all make promises, but they don't carry them all out. (p.57) In this conversation, the lexical items "Labour" and "political party" are an example of the generalization relation.

Specification

The opposite of generalization is the relation of specification. This relation was named metonymy by Hasan and inclusion: general-specific by McCarthy. The following is an example:

The deceptive nature of the accelerated growth argument occurs also with respect to the other social services. The White Paper tells us that what we want to do in health, education, etc. depends on faster growth. (p.58)

Here the lexical items “social services” and “health, education” are related by means of a specification relation because the terms health and education reiterate and specify the social services.

Co-specification

This relation has been referred to in earlier studies as co-hyponymy or co-metonymy. It includes the relation between two items which have a common general item. The general item does not need to be explicitly stated in the text: The farthing has ceased to be a coin of the realm; the halfpenny is on its way. . . .(p.59)

Contrast

This relation has also been called antonym, opposition, or complex repetition or paraphrase. It refers to the relation between two items that have opposite meanings. This relation does not necessarily mean that the items are antonymous in the lexical-semantic sense. In the following example, “old aged pensioners” and “working people” are related by contrast in this particular context because the old aged pensioners are getting something for which the working people will have to pay.

Audrey: I mean where are they going, where are they going to get the extra money from er to pay for the old aged pensioners‘ er eight pound rise? Gordon: Mm.

Audrey: Or so they say, we'll get eight pound. Somebody's got to pay for it. So it'll be the working people. . . .(p.60)

According to Tanskanen, every text is unique in how it makes meaning. In this respect, a fluid taxonomy is necessary to account for the processes of making meaning in a text. It also accounts for the choice of the lexis, which reflects originality and flexibility, which characterize the discourse-specific relations.

2.18 Previous related Studies

Despite the fact that recent error analysis studies have been taken into account the communicative aspects of language in their judgment in writing errors, they have focused their attention primarily on sentence level errors. Chiang (1999) points out that focus on isolated sentence is not representative of actual communication. In the evaluation of writing quality, writing assessment needs to be beyond sentence boundaries towards inter-sentential` connections and discourse features.

Discourse analysis, as defined by Crystal (1992, p: 109), is the study of continuous stretches that discourse analysis studies the relationship between language and the context in which language is used.

As it has been mentioned before in (2.4), discourse analysis, as a new linguistic movement, has been influenced by various disciplines including linguistics, psychology and sociology. McCarthy (ibid) explains that discourse analysts are interested in studying spoken and written language in use and this means that discourse analysis is only concerned with the analysis of spoken form of language, as some people may think.

In terms of written language, the work of text grammarians such as De Beaugrande (1980), Hilliday & Hassan (1976), and Van Dijk (1972) contributed a great deal to the analysis of written discourse. Text grammarians, as McCarthy (ibid, p:6) says, take the view that texts are

language elements strung together in relationships with one another. Their interests have been in the links between grammar and discourse.

With written discourse, discourse analysts focus their attention on the description and analysis of language beyond the sentence level and on the context which affects language in use. Brown and Yule (1983, p: 190) confirm that discourse analysts are concerned more with the ‘principle of connectivity’. Therefore, they usually try to draw a distinction between the concept of cohesion and coherence in the literature of discourse analysis.

According to Halliday and Hassan (1976), cohesion is the relationships within and between sentences which determine whether the set of these sentences constitute a text or not. Cohesion is, thus, the surface links between sentences of a text that holds the text together. However, cohesion, as viewed by some linguists like Carrel (1982) and Brown and Yule (1983) will not necessarily guarantee textual coherence.

Van Dijk (1973), p: 83) explains that linguists are divided on the concept of coherence and, therefore, it is not well-defined. Nevertheless, these linguists all agree on the fact that coherence and cohesion are central and significant features in judging the qualities of written discourse. However, shortly after the publication of Halliday and Hassan’s book ‘Cohesion in English’, several other studies began to appear on cohesion. In one of these studies, Witte and Faigley (1981) examined the relationship of coherence, cohesion and writing quality. After analyzing the essays for cohesive ties that received the highest and the lowest scores in holistic scoring, researchers noticed that high-rated essays include more cohesive ties as well as more lexical ties.

Therefore, researchers concluded that cohesion analysis in essays might be potentially useful in distinguishing between stages of writing

development and that cohesion analysis gave some information about the differences between good and bad writing samples of students (ibid: 199).

As mentioned above, using more cohesive devices such as pronouns, repeating key words or providing transitional devices does not necessarily make a text coherent. One example researcher, among some other researchers, who strongly disagree with the idea that the use of cohesive ties makes a text coherent is Carrel (1982m p: 486). She presents that cohesion theory does not take the contribution of the reader into consideration and, falls to account for coherence of a text. She specifically criticizes the view held by Halliday and Hassan which states that coherence is created by the linguistic resources of the language and that if a text is coherent, this is because of certain linguistic features in the text. She firmly holds that cohesion is not the cause of coherence and she adds ‘...if anything it is the effect of coherence’.

Hence, like many other researchers, Carrel points out that a coherent text will likely be cohesive, but that bringing pieces of a text together will not make the text coherent, though it appears cohesive.

Other similar cohesion analysis studies focused on the relationship between the discourse features of writing (cohesion and coherence) and the results of these studies have shown, for the most part, that there is little or no correlation between the use of cohesive ties and coherence of a text. One example of these studies is the one conducted by Tierney and Mosenthal (1983) who asked collage teachers to rate students’ essays with respect to general coherence and then carried out cohesive analysis of the essays. The result indicated that there is no relationship between the cohesive ties and coherent rankings. The study, therefore, argued against using cohesion as a predictor of textual coherence.

Again, McCulley (1985) investigated the relationships among cohesion, coherence and writing quality of EFL/ESL students’ persuasive

essays. He reported somewhat different findings from that of Tierney and Mosenthal. However, he found that one cohesion category- the lexical cohesive features of synonyms, hyponyms and collocation- was significantly related to coherence and writing ratings. The evidence in this study, therefore, suggests that not all of cohesive categories are significant features in determining either coherence or writing quality, but coherence is a valid construct of writing quality judgment.

Moreover, Spiegel and Fitzgerald (1990) supported what McCulley found in that there was some limited evidence of a relationship between cohesion and coherence, but that there was strong positive correlation between the ratings of coherence and holistic quality of writing. They, however, found that there is no relationship between cohesion and writing quality.

With regard to the relationship between grammatical accuracy and discourse organization, Kroll (1990) reported no relationship between these two aspects of written discourse in a study conducted with the compositions of some students from different backgrounds. Her findings suggested that students could produce well- written essays in bad English and poor essays in good English.

Still one more example of the studies that investigated the relationship between grammatical accuracy, discourse features and holistic quality of writing is that of Pongsiriwet (2001). The study investigated compositions of 155 Thai freshmen university students majoring in English and different other fields of science. The participants were all enrolled in English foundation program held at the university. The results of the study showed that frequent types of errors include nouns, pronouns, tense, articles, prepositions, word form, verb formation, subject-verb agreement and fragment. The most frequent errors occur in subject-verb agreement, standing at 15.0., followed by verb formation,

standing at 14.5 and tense, standing at 14.3. The study attributed the causes of grammatical errors to negative interference from L1.

As for the relationship between grammatical accuracy and the discourse features within a written discourse, the findings of the study revealed no statistically significant correlation between grammatical accuracy and cohesion, but a significant correlation between grammatical accuracy and coherence. In investigating the relationship between grammatical accuracy, cohesion and coherence and their respective effect on holistic quality of writing, the results indicated the highest correlation between the holistic quality and coherence followed by the holistic quality and cohesion and finally between the holistic quality and grammar.

Among the Sudanese studies which have been based on discourse analysis and which are more relevant to the present study are Abdallah's (2000) and Ali's (2007).

First, Abdallah (2000) investigated the written discourse features in the essay writings of 149 fourth-year university students majoring in English. His materials for study were originally written answers for the final examination held in the academic year 1998/99. The subjects of the study were asked to write essay answers to three questions two of which were mainly critics on literary topics already taught to the same subjects in literature courses. The third question was to write a free short story.

On analyzing the data, the investigator came out with the result that the students' writing was characterized by a poor grasp of discourse properties, i.e.- discourse cohesion, discourse coherence and discourse mechanics. The investigator also claimed that the poor awareness of the written discourse properties correlated with the overall writing quality of the majority of the EFL students.

In principle, the present researcher of this study agrees with Abdallah (2000) in many ways, as he was more concerned in his study with analyzing EFL writing at discourse level rather than sentence level. Yet, it seems there are many points to be discussed with respect to the ideas presented in Abdallah's study.

To start with, what Abdallah identified as cohesive devices are considered by some other applied linguists, like Halliday (1994) and Freddi (2004), as only one type of cohesive ties, namely, non-structural cohesive devices. In fact Freddi (ibid: 214) distinguishes between structural and non-structural cohesive devices. She outlines that reference, ellipses and substitution are classified as non-structural, though grammatical, cohesive devices. They are not structural for the simple reason that, in their work, they do not depend on the internal structure of the clause or a sentence within a written discourse, but rather on the semantic structure across text.

However, Halliday (1994) asserts that, from a functional grammar point of view, the internal structure of the clauses and sentences within a written text contributes a lot to the cohesion and coherence as two major features characterizing the good quality of writing. Again, Halliday, who has constructed his model of functional grammar mainly, as he puts it, for the purpose of text analysis, stresses the significance of grammatical structures in analyzing a written discourse. He argues:

“The current preoccupation is with discourse analysis, or text linguistics; and it is something assured that this can be carried on without grammar. But, this is an illusion. A discourse analysis that is not based on grammar is not an analysis at all”.

(Halliday, 1994 p: xvi).

Halliday (Ibid p: xvii) countries to argue that a text is a semantic unit but ‘its meanings are realized through wordings’ and only through grammar that the meaning of a text could be interpreted.

Moreover, in his study, Abdalla neglected some grammatical categories such as verb noun, prepositions to be incorporated in the study and to be put explicitly as having something to do with the EFL writing problems. Actually he seemed to be uninterested in grammatical items to be displayed syntactically in written discourse competence. Anyhow, Halliday (1994, p: xxviii) confirms that the syntactic structures come in as the realization of the network of relations in written texts.

Furthermore, Hatch (1992) emphasizes that a written text is considered to be decontextualized and this means that the writer has no any way to express meaningful ideas without constructing well- formed sentences to help his reader work out the possible integration. In short, the present study takes into consideration the important role of the grammatical features, dealt with from both formal and functional perspective, together with the central role of discorsal aspects in enhancing the EFL students’ writing performance. This view seems to be compatible with Freddi’s view when she says:

“...Formal analysis must at some stage takes account of meaning and function, and functional analysis must at some stage takes account of form”

(Freddi 2004, p: 23)

Moreover, as far as discourse competence is concerned, Canale and Swain (2002, p:5) regard this types of discorsal and grammatical knowledge as main components of communicative competence, together with sociolinguistic and strategic ones. They stress the significant role of

grammatical rules in the natural use of language when they say that there are rules of language use that would be useless without rules of grammar, which include morphological forms, syntactic patterns and lexical items.

The second Sudanese study which attempted to investigate EFL writing performance on the basis of discourse analysis is the one conducted by Ali (2007). The investigator addressed the problem which was concerned with the use of cohesive devices in the writing of fourth-year students majoring in English at Omdurman Islamic university. The materials of the study were samples of answer sheets in final examinations at the university in the academic year 2006/07. They were actually analytic and critic essays for questions in some literature courses. The result of the study showed that the subjects tended to overuse reference cohesive devices in their essay writings and the reason, according to the investigator, was due to the students' L1 interference.

Anyhow, for one reason or another, Ali's (2007) did not include the rest 3of cohesive devices, other than reference. The other structural and non-structural cohesive devices such as substitution, ellipses, lexical items and grammatical structures were totally neglected.

Moreover, like Abdallah (2000), Ali (2007) used samples of students' answer sheets which were originally analytical and critical essays for some questions in literature examinations. This cannot, in any way, said to be reflecting the students' abilities in productive writing, because the essay answers in literature examinations are, more or less, regarded by some teachers as just recitation of literary opinions provided by the teachers of literature courses and have already been discussed with the students.

CHAPTER THREE
RESEARCH METHODOLOGY

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the following methods of the study, description of sample and the instruments, validity, reliability and data analysis procedures. The study adopted the descriptive analytical method. Two instruments are used as primary tools for data collecting methods in this study (questionnaire to teachers of English at some Sudanese Universities and diagnostic test to second year students of English at Sudan University of Science and Technology - College of Languages).

3.1 Method of the Study

The researcher adopted descriptive analytical method. Two instruments have been used to collect the information of this study. Namely, questionnaire has given to teachers of English language and diagnostic test which was distributed to second year students of English at Sudan University of Science and Technology - College of Languages.

3.2 Population and Sample of the Study

The populations of this study were second year students of English at SUST and teachers of English languages at some Sudanese Universities. A questionnaire was distributed to the teachers from both sexes. This questionnaire includes a covering page which introduces the topic of research identifies the researcher. It uses likert 5- point scale (strongly agree, agree, neutral, disagree and strongly disagree). A questionnaire is designed based on the questions of the study. The questions of the study were turn to statements that provide suggested answers from the teachers at university level were supposed to select the options which correspond to their responses. Diagnostic test was contains three questions. The items correspond directly to the hypotheses of the

study. It is conducted to second year students of English at SUST, College of Languages. The answers of the responses are treated statistically for the purpose of findings.

3.3 Tools of Data Collection

The tools of study were questionnaire and diagnostic test. A questionnaire was given to (30) teachers of English language and diagnostic test which was distributed to (30) second year students of English at SUST, College of Languages.

3.4 Procedures of the Study

The researcher followed the following procedures in order to conduct this study. Initially, teachers from some of the Sudanese educational institutes were asked to respond to the questionnaire so as to glean their positive ideas about the use of cohesive learning strategy. Students of English at SUST-College of Languages were asked to respond to the diagnostic test. The obtained data from the questionnaire will be analyzed using the SPSS and Alpha Cronbach's program specifically with percentile.

3.5 Validity and Reliability of the Study

The questionnaire and diagnostic test were judged by three Ph.D. holding referees who were specialists in the study field of English. Some of the referees made some amendments, and others recommended that the questionnaire is reasonable in terms of items . In this case , the researcher will revise all amendments, and some of typing mistakes on his questionnaire were corrected.

Reliability refers to the reliability of any test, to obtaining the same results if the same measurement will use more than one time under the same conditions. In addition, the reliability means when a certain test was applied on a number of individuals and the marks of every one were

counted; then the same test applied another time on the same group and the same marks were obtained; then we can describe this test as reliable. In addition, reliability is defined as the degree of the accuracy of the data that the test measures.

3.6 Statistical Reliability of the Questionnaire

	Cronbach's Alpha	Number of Items
	0.89	14

3.7 Statistical Reliability of the Diagnostic Test

	Cronbach's Alpha	Number of Questions
	0.93	4

CHAPTER FOUR
DATA ANALYSIS, RESULTS AND
DISCUSSIONS

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.0. Introduction

This chapter is devoted to the analysis, evaluation, and interpretation of the data collected through the questionnaire which was given to 30 respondents who represent the teachers' community in Sudanese university colleges in Sudan and diagnostic which was given to second year students of English at Sudan University of Science and Technology-College of Languages.

4.1 The Responses to the Questionnaire

The responses to the questionnaire of the 30 teachers were tabulated and computed. The following is an analytical interpretation and discussion of the findings regarding different points related to the objectives and hypotheses of the study.

Each item in the questionnaire is analyzed statistically and discussed. The following tables will support the discussion.

4.2. Analysis of the Questionnaire:

The researcher distributed the questionnaire on determined study sample (30), and constructed the required tables for collected data. This step consists transformation of the qualitative (nominal) variables (strongly disagree, disagree, Undetermined, agree, and strongly agree) to quantitative variables (1, 2, 3, 4, 5) respectively, also the graphical representations were used for this purpose.

Hypothesis One : EFL students significantly face problems in using lexical cohesive ties in written discourse.

Statement No.(1): EFL students overuse simple lexical repetition of the cohesive tie in written discourse.

Table No (4.1) The Frequency Distribution for the Respondents'

Answers of statement No.(1)

Valid	Frequency	Percent
Strongly agree	22	71.0
agree	3	12.3
Neutral	2	6.7
disagree	3	10.0
strongly disagree	0	0
Total	30	100.0

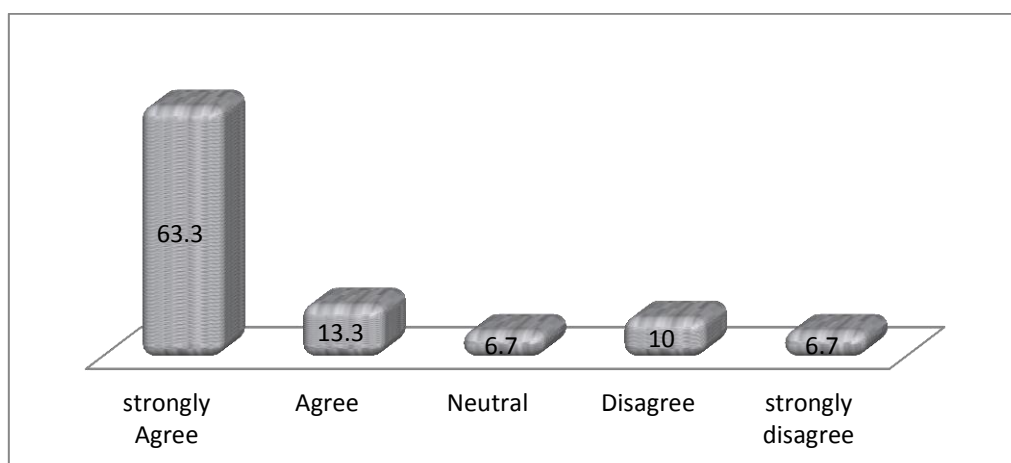


Figure No (4.1) The Frequency Distribution for the Respondents'

Answers of statement No.(1)

From the above table No.(4.1) and figure No (4.1) It is clear that there are (22) persons in the study's sample with percentage (71.0%) strongly agreed with " EFL students overuse simple lexical repetition of the cohesive tie in written discourse..". There are (4) persons with percentage (12.3%) agreed with that and (2) persons with percentage (6.7%) were not sure that and (3) persons with percentage (10.0%) disagreed. And (0) persons with 0% are strongly disagreed.

Statement No.(2): EFL students cannot recognize complex lexical repetition of cohesive ties in written discourse.

Table No (4.2) The Frequency Distribution for the Respondents' Answers of statement No.(2)

Valid	Frequency	Percent
Strongly agree	8	23.3
agree	16	56.7
Neutral	1	3.3
disagree	3	10.0
strongly disagree	2	6.7
Total	30	100.0

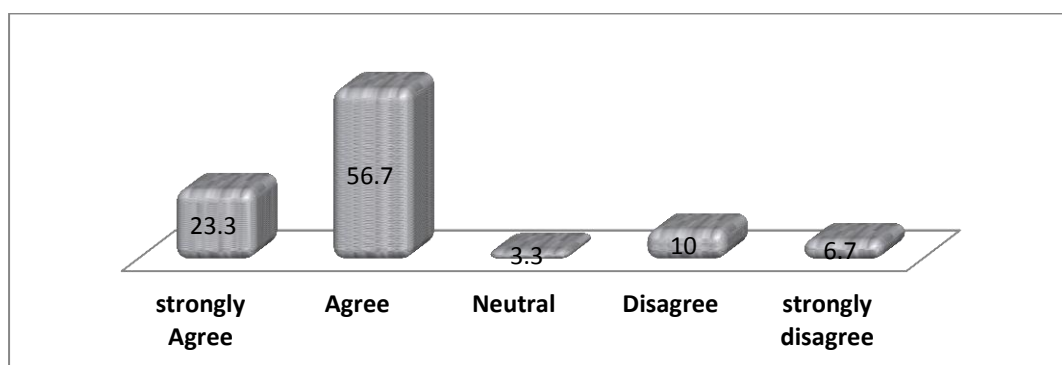


Figure No (4.2) The Frequency Distribution for the Respondents' Answers of statement No.(2)

From the above table No.(4.2) and figure No (4.2) It is clear that there are (8) persons in the study's sample with percentage (23.3%) strongly agreed with " EFL students cannot recognize complex lexical repetition of cohesive ties in written discourse ". There are (16) persons with percentage (56.7%) agreed with that and (1) persons with percentage (3.3%) were not sure that, and (3) persons with percentage (10.0%) disagreed. And (2) persons with 6.7% are strongly disagreed

Statement No.(3): EFL students are unfamiliar with equivalence (synonym) of cohesive ties in written discourse..

Table No (4.3) The Frequency Distribution for the Respondents' Answers of statement No.(3)

Valid	Frequency	Percent
Strongly agree	11	36.7
agree	13	43.3
Neutral	1	3.3
disagree	2	6.7
strongly disagree	3	10.0
Total	30	100.0

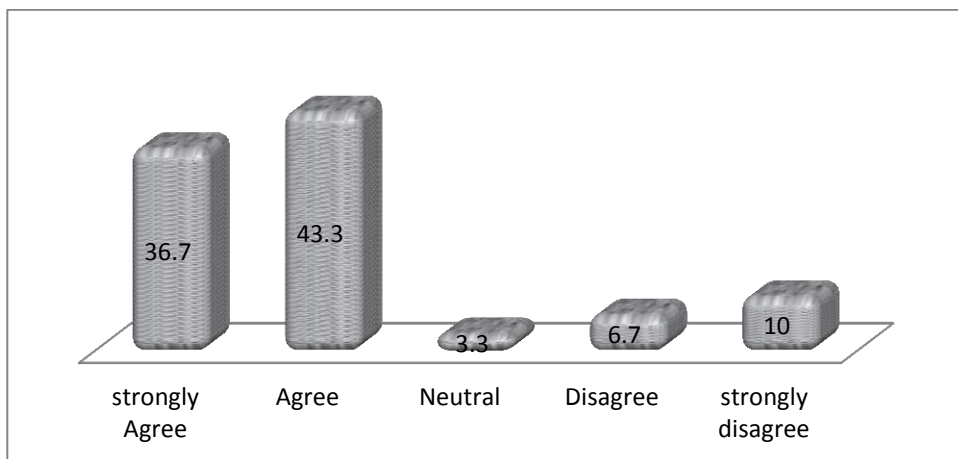


Figure No (4.3) The Frequency Distribution for the Respondents' Answers of statement No.(3)

From the above table No.(4.3) and figure No (4.3) It is clear that there are (11) persons in the study's sample with percentage (36.7%) strongly agreed with " EFL students are unfamiliar with equivalence (synonym) of cohesive ties in written discourse". There are (13) persons with percentage (43.3%) agreed with that, and (1) persons with percentage (3.3%) were not sure that, and (2) persons with percentage (6.7%) disagreed. And (3) persons with 10.0% are strongly disagreed.

Statement No.(4): EFL students are not able to grasp Antonym of cohesive ties in written discourse.

Table No (4.4) The Frequency Distribution for the Respondents' Answers of statement No.(4)

Valid	Frequency	Percent
Strongly agree	7	23.3
agree	16	53.3
Neutral	1	3.3
disagree	4	13.3
strongly disagree	2	6.7
Total	30	100.0

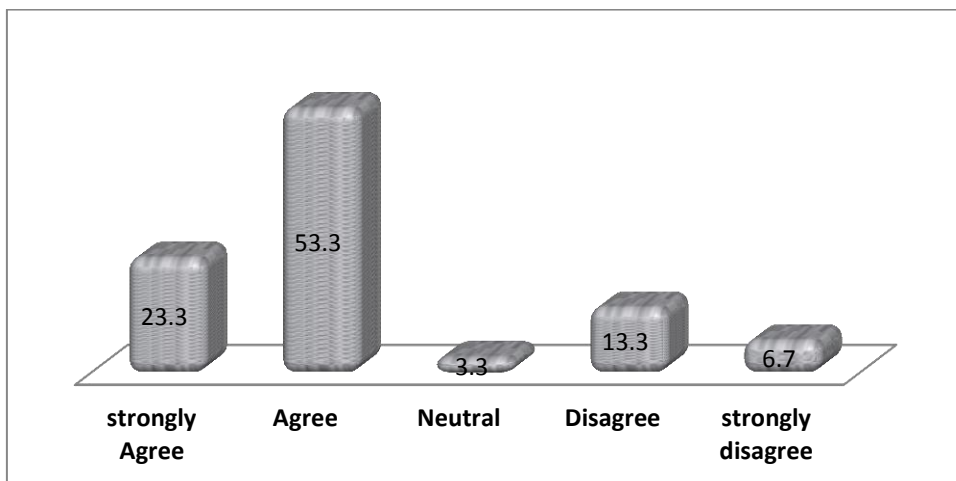


Figure No (4.4) The Frequency Distribution for the Respondents' Answers of statement No.(4)

From the above table No.(4.4) and figure No (4.4) It is clear that there are (7) persons in the study's sample with percentage (23.3%) strongly agreed with " EFL students are not able to grasp Antonym of cohesive ties in written discourse... ". There are (16) persons with percentage (53.3%) agreed with that, and (1) persons with percentage (3.3%) were not sure that, and (4) persons with percentage (13.3%) disagreed. And (2) persons with 6.7% are strongly disagreed

Statement No.(5): EFL students are not capable to clarify super ordinate of cohesive ties in written discourse.

Table No (4.5): The Frequency Distribution for the Respondents' Answers of statement No.(5)

Valid	Frequency	Percent
Strongly agree	7	23.3
agree	18	60.0
Neutral	1	3.3
disagree	2	6.7
strongly disagree	2	6.7
Total	30	100.0

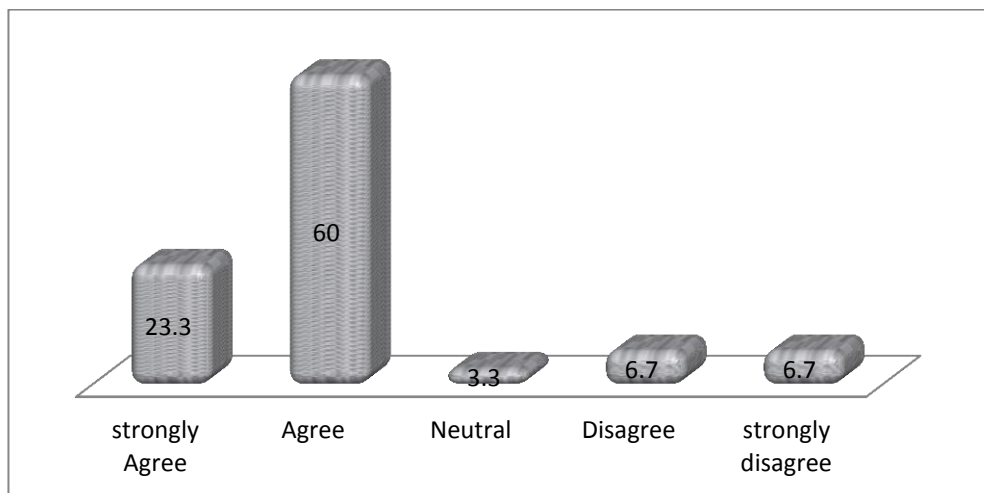


Figure No (4.5) : The Frequency Distribution for the Respondents' Answers of statement No.(5)

From the above table No.(4.5) and figure No (4.5) It is clear that there are (7) persons in the study's sample with percentage (23.3%) strongly agreed with " EFL students are not capable to clarify super ordinate of cohesive ties in written discourse..". There are (18) persons with percentage (60.0%) agreed with that, and (1) persons with percentage (3.3%) were not sure that, and (2) persons with percentage (6.7%) disagreed. And (2) persons with 6.7% are strongly disagree

Statement No.(6) : Students cannot deal with hyponymy of cohesive ties in written discourse.

Table No (4. 6) The Frequency Distribution for the Respondents' Answers of statement No.(6)

Valid	Frequency	Percent
Strongly agree	10	33.3
agree	14	46.7
Neutral	2	6.7
disagree	2	6.7
strongly disagree	2	6.7
Total	30	100.0

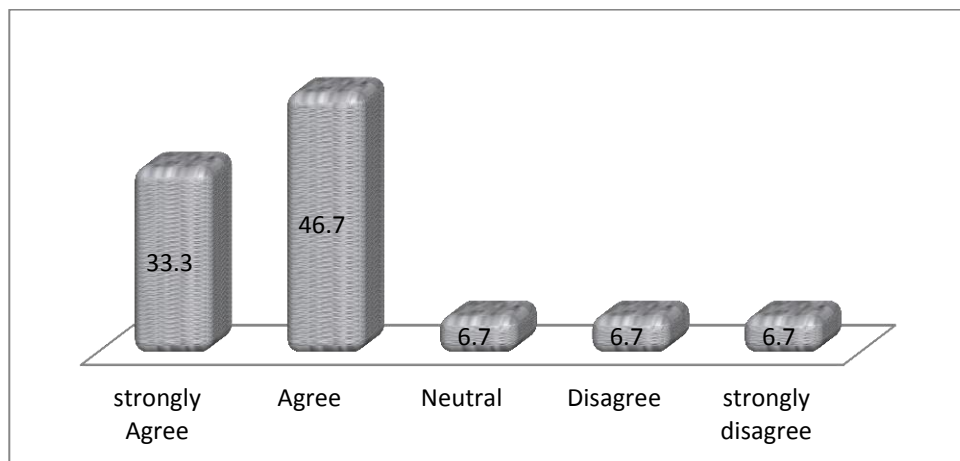


Figure No (4. 6) The Frequency Distribution for the Respondents' Answers of statement No.(6)

From the above table No.(4. 6) and figure No (4. 6) It is clear that there are (10) persons in the study's sample with percentage (33.3%) strongly agreed with " Students cannot deal with hyponymy of cohesive ties in written discourse....". There are (14) persons with percentage (46.7%) agreed with that, and (2) persons with percentage (6.7%) were not sure that, and (2) persons with percentage (6.7%) disagreed. And (2) persons with 6.7% are strongly disagreed.

Statement No.(7): Mother tongue interference should be avoided when utilizing lexical repetition in written discourse.

Table No (4. 7) The Frequency Distribution for the Respondents' Answers of statement No.(7)

Valid	Frequency	Percent
Strongly agree	16	53.3
agree	8	26.7
Neutral	2	6.7
disagree	2	6.7
strongly disagree	2	6.7
Total	30	100.0

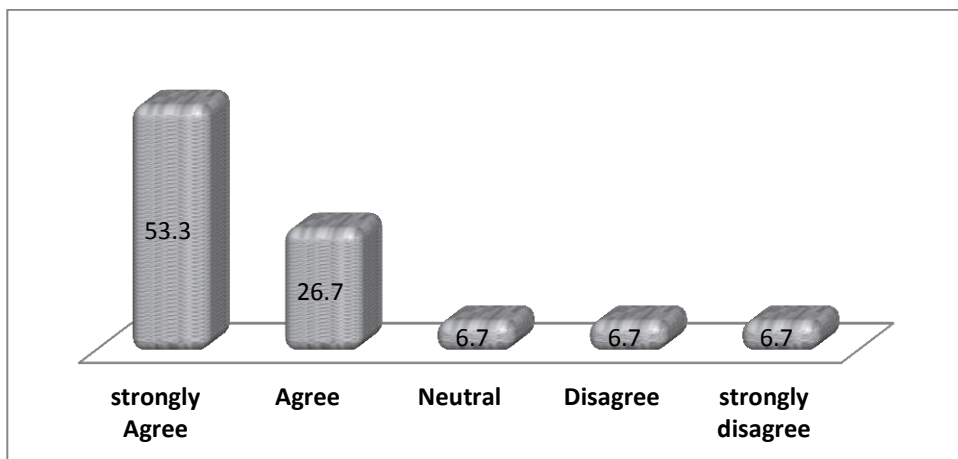


Figure No (4. 7) The Frequency Distribution for the Respondents' Answers of statement No.(7)

From the above table No.(4. 7) and figure No (4. 7) It is clear that there are (16) persons in the study's sample with percentage (53.3%) strongly agreed with " Mother tongue interference should be avoided when utilizing lexical repetition in written discourse. ". There are (8) persons with percentage (26.7%) agreed with that, and (2) persons with percentage (6.7%) were not sure that, and (2) persons with percentage (6.7%) disagreed. And (2) persons with 6.7% are strongly disagreed

Hypothesis Two : less skilled students use fewer lexical cohesive ties of a well-written text is one of the main reasons for the bad quality of EFL students' academic writings .

Statement No.(8): EFL students are not equipping with knowledge of the effectiveness of the introductory paragraph (thesis statement) of coherence in written discourse.

Table No (4.8) The Frequency Distribution for the Respondents' Answers of statement No.(8)

Valid	Frequency	Percent
Strongly agree	6	20.0
agree	18	60.0
Neutral	1	3.3
disagree	3	10.0
strongly disagree	2	6.7
Total	30	100.0

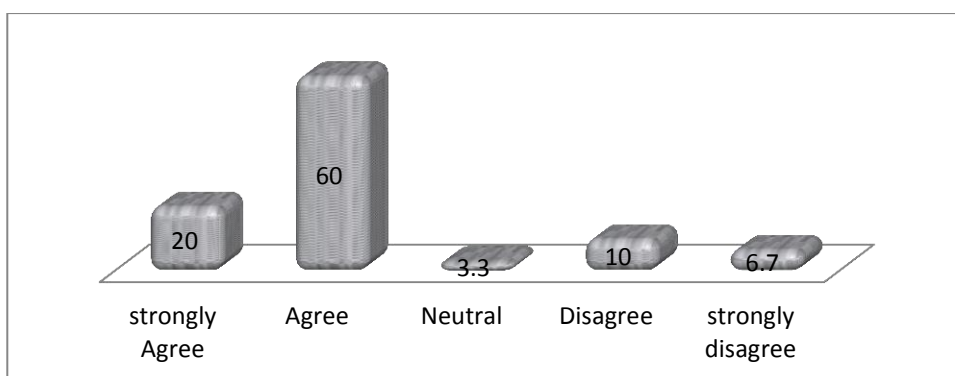


Figure No (4.8) The Frequency Distribution for the Respondents' Answers of statement No.(8)

From the above table No.(4.8) and figure No (4.8) It is clear that there are (6) persons in the study's sample with percentage (20.0%) strongly agreed with " EFL students are not equipping with knowledge of the effectiveness of the introductory paragraph (thesis statement) of coherence in written discourse..". There are (18) persons with percentage (60.0%) agreed with that, and (1) persons with percentage (3.3%) were not sure that, and (3) persons with percentage (10.0%) disagreed. And (2) persons with 6.7% are strongly disagreed.

Statement No.(9): EFL students are not able to understand the relevance of ideas within the written text to the overall lecture of the topic to create coherence in written discourse.

Table No (4.9) The Frequency Distribution for the Respondents' Answers of statement No.(9)

Valid	Frequency	Percent
Strongly agree	12	40.0
agree	12	40.0
Neutral	2	6.7
disagree	2	6.7
strongly disagree	2	6.7
Total	30	100.0

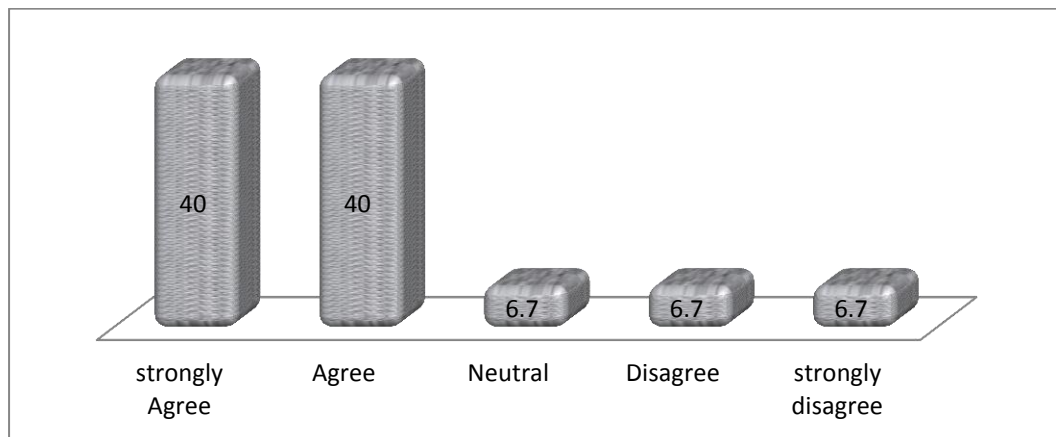


Figure No (4.9) The Frequency Distribution for the Respondents' Answers of statement No.(9)

From the above table No.(4.9) and figure No (4.9) It is clear that there are (12) persons in the study's sample with percentage (40.0%) strongly agreed with " EFL students are not able to understand the relevance of ideas within the written text to the overall lecture of the topic to create coherence in written discourse.". There are (12) persons with percentage (40.0%) agreed with that and (2) persons with percentage (6.7%) were not sure that and (2) persons with percentage (6.7%) disagreed. And (2) persons with 6.7% are strongly disagreed.

Statement NO.(10) : EFL students are not familiar with the interrelations of ideas to one another of coherence in written discourse..

Table No (4.10) The Frequency Distribution for the Respondents' Answers of statement No.(10)

valid	Frequency	Percent
Strongly agree	6	20.0
Agree	11	36.7
Neutral	3	10.0
disagree	8	26.7
strongly disagree	2	6.7
Total	30	100.0

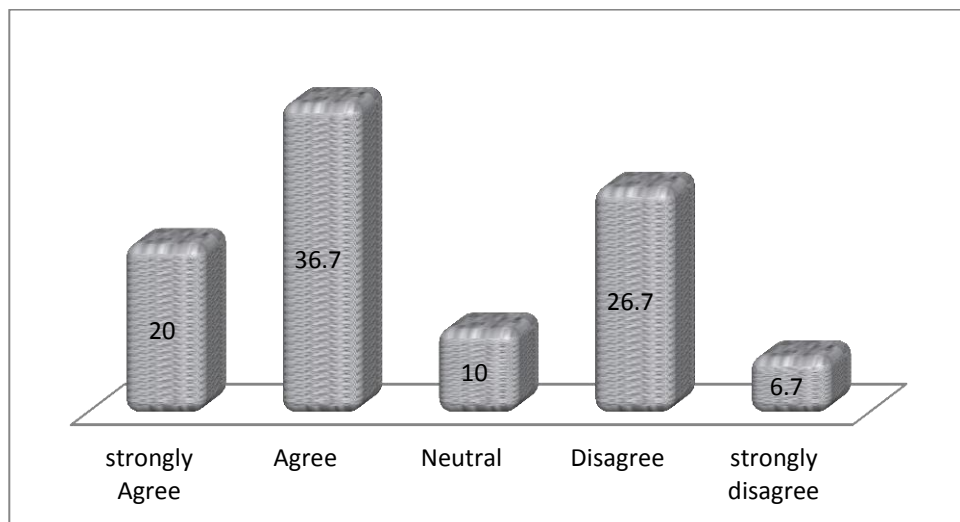


Figure No (4.10) The Frequency Distribution for the Respondents' Answers of statement No.(10)

From the above table No.(4.10) and figure No (4.10) It is clear that there are (6) Persons in the study's sample with percentage (20.0%) strongly agreed with “EFL students are not familiar with the interrelations of ideas to one another of coherence in written discourse..”. There are (11) persons with percentage (36.7%) agreed with that and (3) persons with percentage (10.0%) were not sure that and (8) persons with percentage (26.7%) disagreed. And (2) persons with 6.7% are strongly disagreed.

Statement No.(11): EFL students are not able to comprehend the clearness of the point of view of the writers creates coherence in written discourse..

Table No (4.11) The Frequency Distribution for the Respondents' Answers of statement no. (11)

valid	Frequency	Percent
Strongly agree	4	13.3
agree	13	43.3
Neutral	1	3.3
disagree	6	20.0
strongly disagree	6	20.0
Total	30	100.0

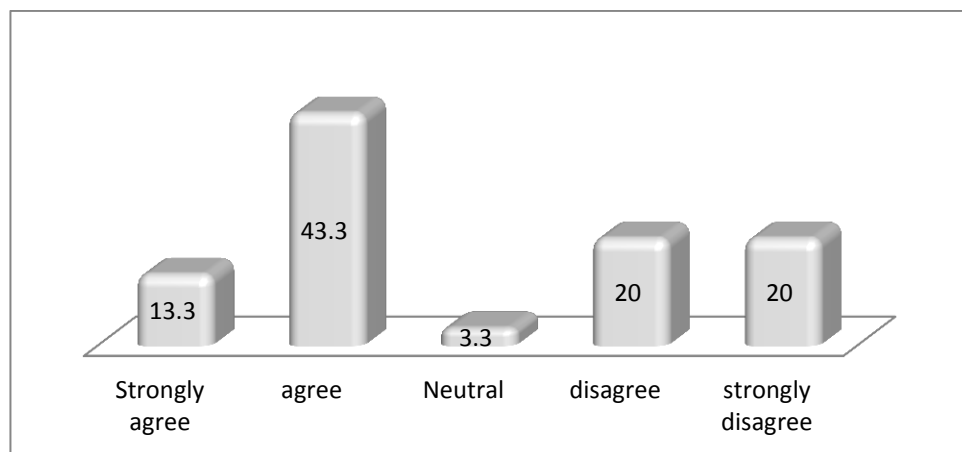


Figure No (4.11) The Frequency Distribution for the Respondents' Answers of statement no. (11)

From the above table No.(4.11) and figure No (4.11) It is clear that there are (4) Persons in the study's sample with percentage (13.3%) strongly agreed with “EFL students are not able to comprehend the clearness of the point of view of the writers creates coherence in written discourse. .”. There are (13) persons with percentage (43.3%) agreed with that, and (1) a person with percentage (3.3%) were not sure that, and (6) persons with percentage (20%) disagreed. And (6) persons with 20.0% are strongly disagreed.

Statement No.(12): EFL students are not able to grasp the reasonable division of the paragraph or the essay in terms of the relevance of ideas in written discourse.

Table No (4.12) The Frequency Distribution for the Respondents' Answers of statement No.(12)

Valid	Frequency	Percent
Strongly agree	12	40.0
agree	12	40.0
Neutral	2	6.7
disagree	2	6.7
strongly disagree	2	6.7
Total	30	100.0

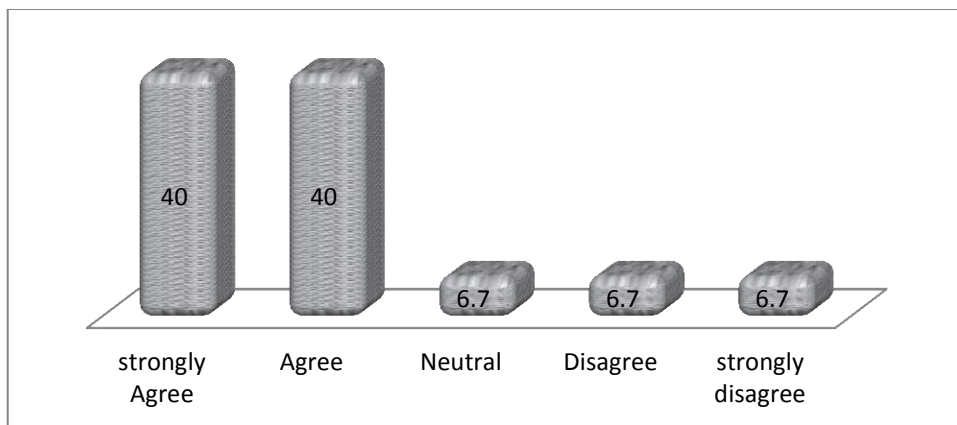


Figure No (4.12) The Frequency Distribution for the Respondents' Answers of statement No.(12)

From the above table No.(4.12) and figure No (4.12) It is clear that there are (12) Persons in the study's sample with percentage (40.0%) strongly agreed with "EFL students are not able to grasp the reasonable division of the paragraph or the essay in terms of the relevance of ideas in written discourse..". There are (12) persons with percentage (40.0%) agreed with that, and (2) persons with percentage (6.7%) were not sure that, and (2) persons with percentage (6.7%) disagreed. And (2) persons with 6.7% are strongly disagreed

Statement No.(13): EFL students are not able to recognize a suitable and sensible conclusion of the topic in written discourse..

Table No (4.13) The Frequency Distribution for the Respondents' Answers of statement No.(13)

Valid	Frequency	Percent
Strongly agree	1	3.3
agree	12	40.0
Neutral	5	16.7
disagree	6	20.0
strongly disagree	6	20.0
Total	30	100.0

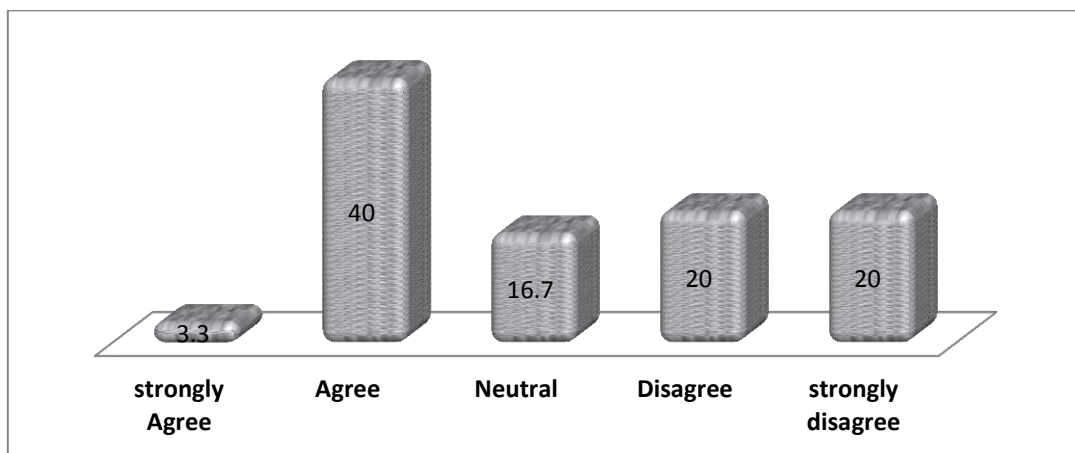


Figure No (4.13) The Frequency Distribution for the Respondents' Answers of statement No.(13)

From the above table No.(4.13) and figure No (4.13) It is clear that there are (1) person in the study's sample with percentage (3.3%) strongly agreed with " EFL students are not able to recognize a suitable and sensible conclusion of the topic in written discourse..". There are (12) persons with percentage (40.0%) agreed with that, and (5) persons with percentage (16.7%) were not sure that, and (6) persons with percentage (20.0%) disagreed. And (6) persons with 20.0% are strongly disagreed.

Statement No. (14): Trained teachers can help students to widen their knowledge of coherence in written discourse.

Table No (4.14): The Frequency Distribution for the Respondents' Answers of statement No.(14)

Valid	Frequency	Percent
Strongly agree	14	46.7
agree	4	13.3
Neutral	3	10.0
disagree	1	3.3
strongly disagree	8	26.7
Total	30	100.0

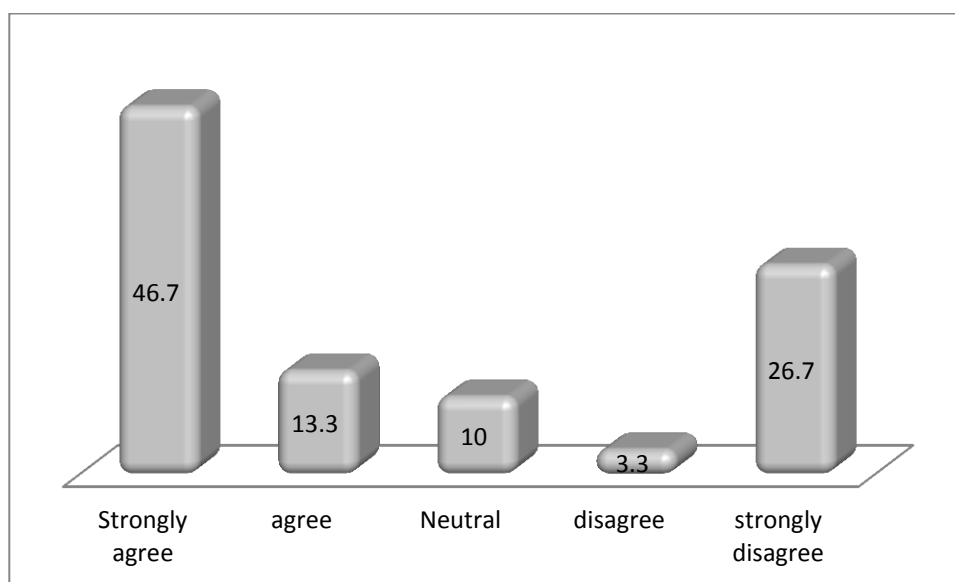


Figure No (4.14): The Frequency Distribution for the Respondents' Answers of statement No.(14)

From the above table No.(4.14) and figure No (4.14) It is clear that there are (14) Persons in the study's sample with percentage (47.3%) strongly agreed with “Trained teachers can help students to widen their knowledge of coherence in written discourse...”. There are (4) persons with percentage (13.3%) agreed with that, and (3) persons with percentage (10.0%) were not sure that, and (1) a person with percentage (3.3%) disagreed. And (8) persons with 26.7% are strongly disagreed.

For overall questionnaire

Table No (4.15) The Frequency Distribution and percentage for the Respondents' Answers in overall questionnaire

Valid	Frequency	Percent
<u>The mean of persons who Strongly agreed with all statements</u>	<u>16</u>	<u>53.3</u>
<u>The mean of persons who agreed with all statements</u>	<u>8</u>	<u>26.7</u>
<u>The mean of persons who was neutral</u>	<u>2</u>	<u>6.7</u>
<u>The mean of persons who disagreed with all statements</u>	<u>2</u>	<u>6.7</u>
<u>The mean of persons who Strongly disagreed with all statements</u>	<u>2</u>	<u>6.7</u>
Total	30	100.0

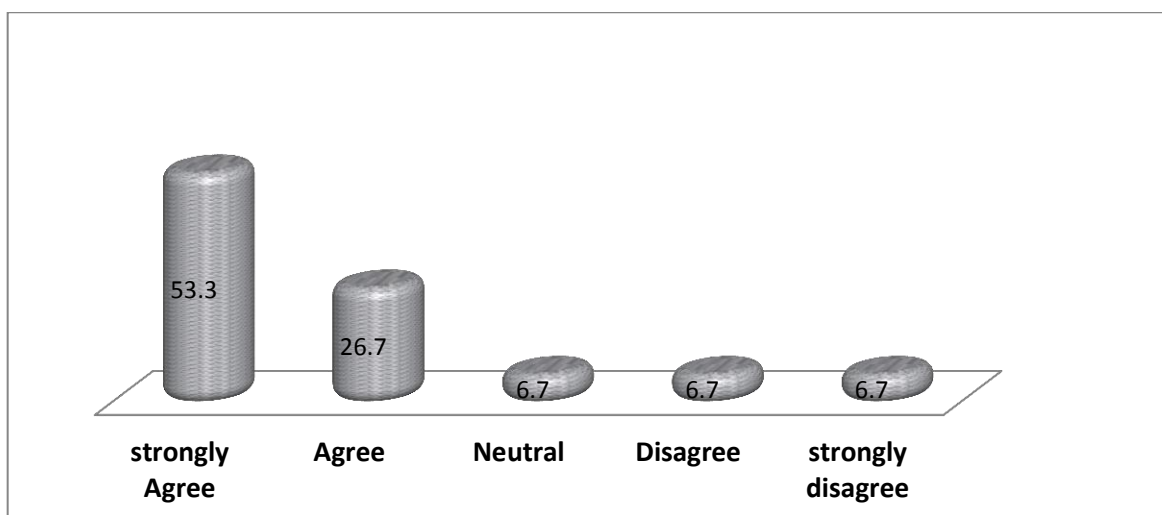


Figure No (4.15) The Frequency Distribution and percentage for the Respondents' Answers in overall questionnaire

From the above table No.(4.15) and figure No (4.15) It is clear that there are (16) persons in the study's sample with percentage (53.3%) strongly agreed with overall statement . There are (8) persons with percentage (26.7%) agreed, and (2) persons with percentage (6.7%) were not sure that, and (2) persons with percentage (6.7%) disagreed. And (2) persons with 6.7% are strongly disagreed

Table No.(4. 16) Chi-Square Test Results for Respondents’ Answers of the Questions of the Hypothesis (1) : EFL students significantly face problems in using lexical cohesive ties in written discourse .

Nom.	Statement	mean	SD	Chi square	p-value
1	1-EFL students overuse simple lexical repetition of the cohesive tie in written discourse.	3.4	1.9	17	0.00
2	2-EFL students cannot recognize complex lexical repetition of cohesive ties in written discourse.	2.5	2.6	17	0.00
3	3- EFL students are unfamiliar with equivalence (synonym) of cohesive ties in written discourse.	2.4	2.4	13	
4	4- EFL students are not able to grasp Antonym of cohesive ties in written discourse.	3	0.8	25	0.03
5	5- EFL students are not capable to clarify superordinate of cohesive ties in written discourse.	2.9	1.6	20	0.00
6	6- Students cannot deal with hyponymy of cohesive ties in written discourse.	3.4	1.9	17	0.00
7	7- Mother tongue interference should be avoided when utilizing lexical repetition in written discourse.	2.5	2.6	17	0.00

Source: The researcher from applied study, SPSS 24

The calculated value of chi-square for the significance of the differences for the respondents’ answers in question No (1) was (17) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this

indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students overuse simple lexical repetition of the cohesive tie in written discourse..**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (2) was (17) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“-EFL students cannot recognize complex lexical repletion of cohesive ties in written discourse**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question (3) was (13) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **EFL students are unfamiliar with equivalence (synonym) of cohesive ties in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (4) was (25) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“- EFL students are not able to grasp Antonym of cohesive ties in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (5) was (20) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students are not capable to clarify superordinate of cohesive ties in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (1) was (17) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“Students cannot deal with hyponymy of cohesive ties in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (2) was (17) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“Mother tongue interference should be avoided when utilizing lexical repetition in written discourse.**

According to the previous result we can say that the first hypothesis of our study is accepted

Table No.(4.17.) Chi-Square Test Results for Respondents' Answers of the Questions of the Hypothesis Two : Less skilled students misuse coherence of a well-written text is one of the main reasons for the bad quality of EFL students' academic writing .

Nom .	Statement	mean	SD	Chi square	p-value
1	1-EFL students are not equipping with knowledge of the effectiveness of the introductory paragraph (thesis statement) of coherence in written discourse.	2.5	1.7	15	0.00
2	2- EFL students are not able to understand the relevance of ideas within the written text to the overall lecture of the topic to create coherence in written discourse.	2.7	2.7	15	0.00
3	3- EFL students are not familiar with the interrelations of ideas to one another of coherence in written discourse.	2.8	.02	20	0.001
4	4- EFL students are not able to comprehend the clearness of the point of view of the writers creates coherence in written discourse.	2.5	0.7	21	0.008
5	5- EFL students are not able to grasp the reasonable division of the paragraph or the essay in terms of the relevance of ideas in written discourse.	3.5	2.7	26	0.000
6	6- EFL students are not able to recognize a suitable and sensible conclusion of the topic in written discourse.	2.7	2.7	15	0.00
7	7- Trained teachers can help students to widen their knowledge of coherence in written discourse	2.8	.02	20	0.001

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (1) was (15)

which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students are not equipping with knowledge of the effectiveness of the introductory paragraph (thesis statement) of coherence in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (2) was (15) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students are not able to understand the relevance of ideas within the written text to the overall lecture of the topic to create coherence in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (3) was (20) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students are not familiar with the interrelations of ideas to one another of coherence in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (4) was (21) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this

indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students are not able to comprehend the clearness of the point of view of the writers creates coherence in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (5) was (26) which is greater than the tabulated value of chi-square at the degree of freedom (5) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students are not able to grasp the reasonable division of the paragraph or the essay in terms of the relevance of ideas in written discourse..**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (7) was (15) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with the statement **“EFL students are not able to recognize a suitable and sensible conclusion of the topic in written discourse.**

The calculated value of chi-square for the significance of the differences for the respondents' answers in question No (7) was (15) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the

respondent who agreed with the statement “**Trained teachers can help students to widen their knowledge of coherence in written discourse.**

Table No.(4.18) Chi-Square Test Results for Respondents’ Answers of the overall questionnaire

For over all questionnaire	mean	SD	Chi square	p-value
	3.3	1.3	16	0.00

The mean of the chi-square calculated values of for the significance of the differences for the respondents’ answers in over all questionnaire was (16) which is greater than the tabulated value of chi-square at the degree of freedom (4) and the significant value level (5%) which was (8.57). this indicates that, there are statistically significant differences at the level (5%) among the answers of the respondents, which support the respondent who agreed with all hypothesis of the study.

According to the previous result we can say that the second hypothesis of our study is accepted

- Diagnostic Test

The responses to the diagnostic test of the 82 students were tabulated and computed. The following is an analytical interpretation and discussion of the findings regarding different points related to the objectives and hypotheses of the study. Each statement in the test is analyzed statistically and discussed. The following table will support the discussion.

4.3 Discussion of the Findings

The items (1 to3) tested students ‘misuse of grammatical cohesion ties (reference, ellipsis and substitution and conjunction).The items (4 to 8) tested students’ coherence in written discourse. These eight items converted into numbers and tables to facilitate analysis, discussion and interpretation as follows:

4.4 : The Analysis of Diagnostic Test

Table (4.19) the frequency and percentage distribution of the respondents according to (reference) part

Part (1)	Frequency	Percentage
Pass	21	25.6%
Failure	61	74.4%
Total	82	100%

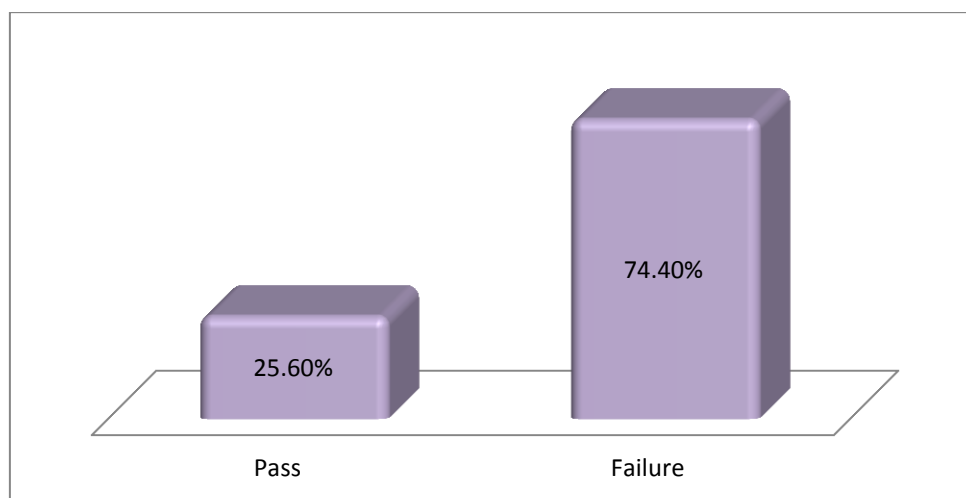


Figure (4.16) the frequency and percentage distribution of the respondents according to (reference) part

Clear that the number of students who failed to pass the (reference) part of the test is (61) students, with percentage (74.4%%) which is greater than the number of students who passed it (21) students with percentage (25.6%).

Table (4.20): the frequency and percentage distribution of the respondents according to the (ellipsis and substitution) part

Part (1)	Frequency	Percentage
Pass	31	37.8%
Failure	51	62.2%
Total	82	100%

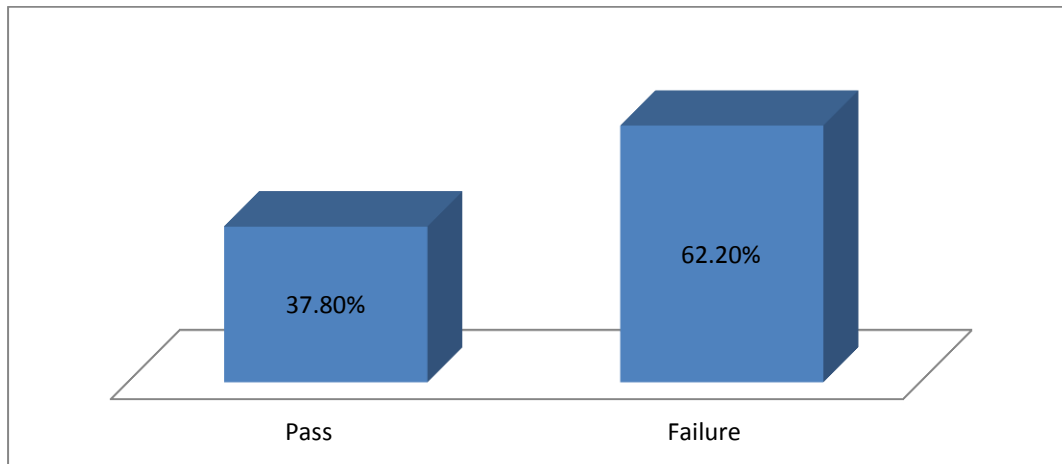


Figure (4.17) : the frequency and percentage distribution of the respondents according to the (ellipsis and substitution) part

From the above table (4.2.2) it's clear that the number of students who failed to pass the (ellipsis and substitution) part of the test is (51) students , with percentage (62.2%) which is greater than the number of students who passed it (31) students with percentage (37.8%).

Table (4.21) : the frequency and percentage distribution of the respondents according to (conjunction) part

Part (1)	Frequency	Percentage
Pass	18	32.0%
Failure	64	78.0%
Total	82	100%

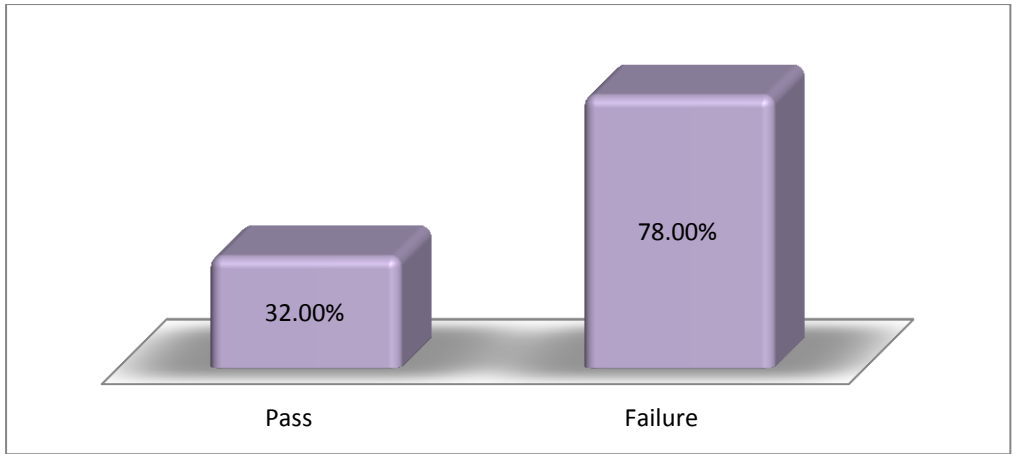


Figure (4.18) : the frequency and percentage distribution of the respondents according to (conjunction) part

From the above table (4.2.3) it's clear that the number of students who failed to pass the (conjunction) part of the test is (64) students, with percentage (78.0%) which is greater than the number of students who passed it (18) students with percentage (22.0%).

Table (4.22) : the frequency and percentage distribution for the respondents according to the (introduction) part

Part (1)	Frequency	Percentage
Pass	22	26.8%
Failure	60	73.2%
Total	82	100%

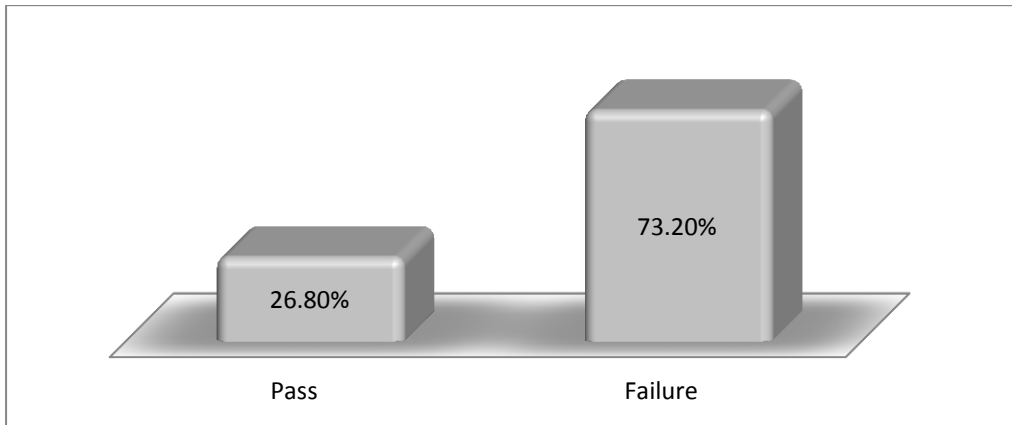


Figure (4.19) : the frequency and percentage distribution for the respondents according to the (introduction) part

From the above table (4.21) it's clear that the number of students who failed to pass the (introduction) part of the test is (60) students, with percentage (73.2%) which is greater than the number of students who passed it (22) students with percentage (26.8%).

Table (4.23) : the frequency and percentage distribution for the respondents in the (relevant of ideas) part

Part (1)	Frequency	Percentage
Pass	16	19.5%
Failure	66	80.5%
Total	82	100%

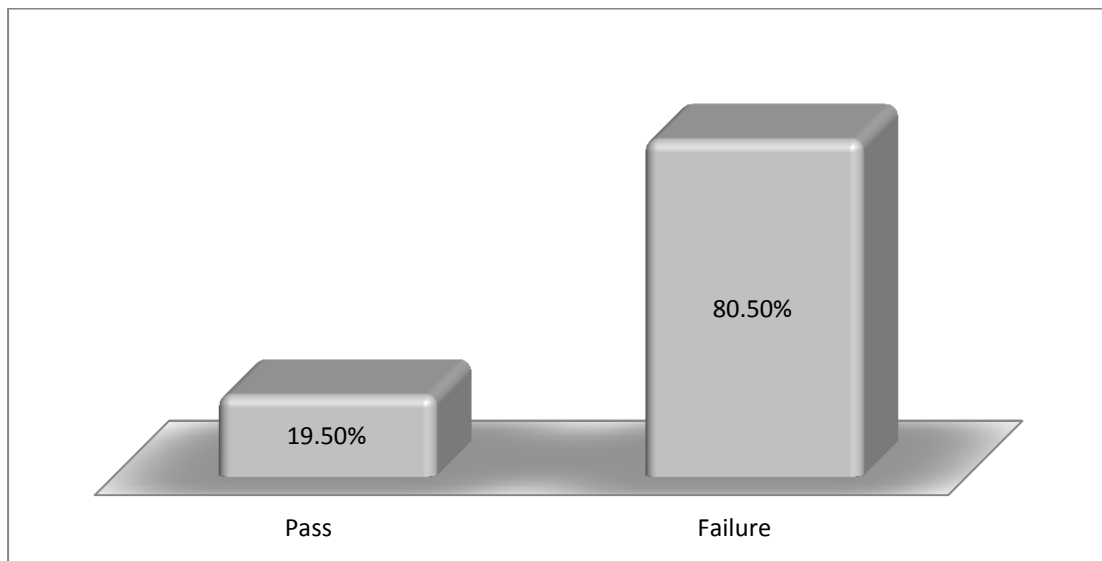


Figure (4.20) : the frequency and percentage distribution for the respondents in the (relevant of ideas) part

From the above table (4.22) it's clear that the number of students who failed to pass the (relevant of ideas) part of the test is (66) students, with percentage (80.5%) which is greater than the number of students who passed it (16) students with percentage (19.5%).

Table (4.24): the frequency and percentage distribution for the respondents in the (appropriate use of examples) part

Part (1)	Frequency	Percentage
Pass	30	36.5%
Failure	52	63.4%
Total	82	100%

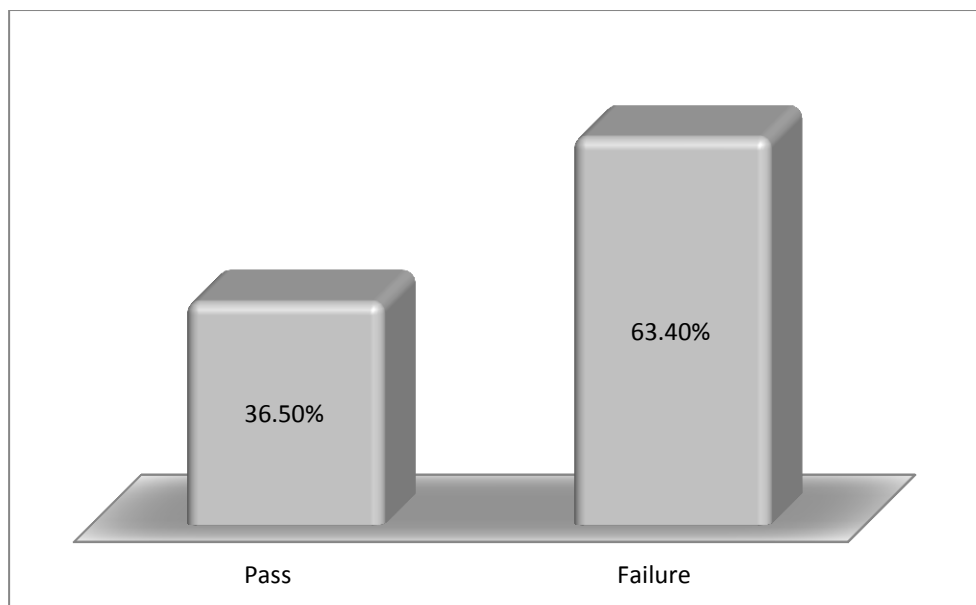


Figure (4.21): the frequency and percentage distribution for the respondents in the (appropriate use of examples) part

From the above table (4.22) it's clear that the number of students who failed to pass the (appropriate use of examples) part of the test is (52) students, with percentage (63.4%) which is greater than the number of students who passed it (30) students with percentage (36.5%).

Table (4.25): the frequency and percentage distribution for the respondents in the (transition between sentences) part

Part (1)	Frequency	Percentage
Pass	19	23.2%
Failure	63	76.8%
Total	82	100%

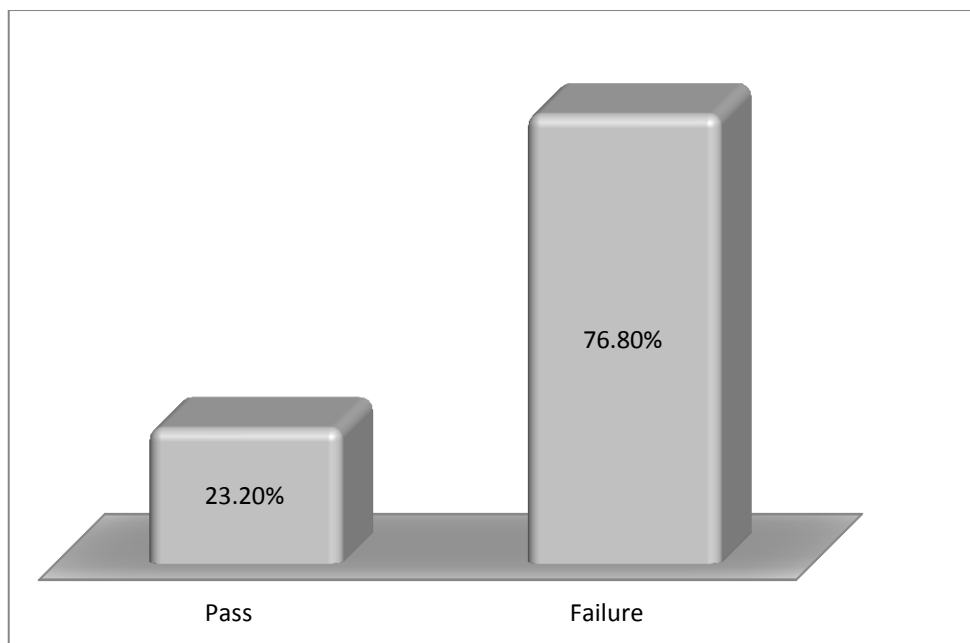


Figure (4.22): the frequency and percentage distribution for the respondents in the (transition between sentences) part

From the above table (4.24) it's clear that the number of students who failed to pass the (transition between sentence) part of the test is (63) students, with percentage (76.8%) which is greater than the number of students who passed it (19) students with percentage (23.2%).

Table (4.26): the frequency and percentage distribution for the respondents in the (suitable conclusion of text) part

Part (1)	Frequency	Percentage
Pass	12	14.6%
Failure	70	85.4%
Total	82	100%

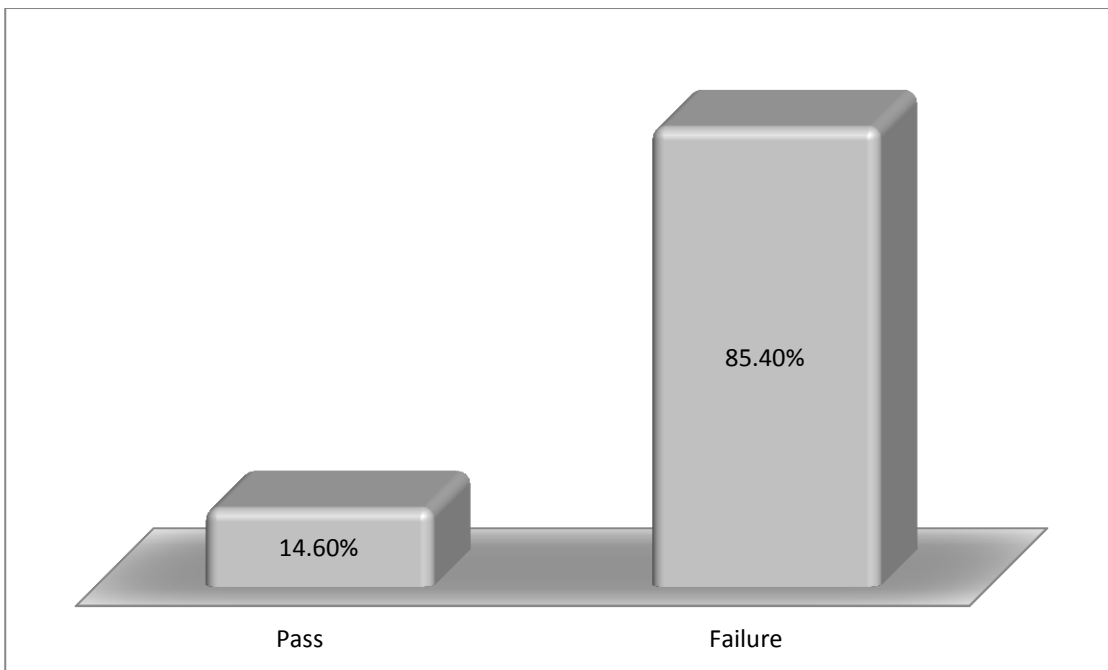


Figure (4.23): the frequency and percentage distribution for the respondents in the (suitable conclusion of text) part

From the above table (4.25) it's clear that the number of students who failed to pass the (suitable conclusion of text) part of the test is (70) students, with percentage (85.4%) which is greater than the number of students who passed it (12) students with percentage (14.6%).

Test Hypotheses by using T - TEST

Table (4.27) one sample T-TEST for the questions of the study

Questions	N	SD	t-value	DF	p-value
2	82	2.81	17	81	0.00
3	82	2.3	16	81	0.00
For all	82	3.03	15	81	0.00

The calculated value of T – TEST for the significance of the differences for the respondent’s answers in the question No (1) was (17) which is greater than the tabulated value of T – TEST at the degree of freedom (81) and the significant value level (0.05%) which was (8.5). This indicates that, there are statistically significant differences at the level (0.05 %) among the answers of the respondents. This means that our second hypothesis is accepted. The calculated value of T – TEST for the significance of the differences for the respondent’s answers in the question No (2) was (15) which is greater than the tabulated value of T – TEST at the degree of freedom (81) and the significant value level (0.05%) which was (8.5). This indicates that, there are statistically significant differences at the level (0.05 %) among the answers of the respondents. This means that our second hypothesis is accepted.

CHAPTER FIVE
MAIN FINDINGS, CONCLUSIONS,
RECOMMENDATIONS AND SUGGESTIONS
FOR FURTHER STUDIES

CHAPTER FIVE

MAIN FINDINGS, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER STUDIES

5.0. Introduction

This chapter presents the answers to research questions, including the discussion of main findings. Moreover, brief recommendation and suggestions for further studies were given at the end of the chapter. To fulfill the purpose of the study, the researcher applied two tools, namely, diagnostic test and a questionnaire.

5.1 Main Findings

The results of this study investigate difficulties faced by EFL students in using cohesion categories in written discourse. The researcher has summarized following findings:

- 1- EFL students are unable to use simple lexical repetition of cohesive tie in written discourse.
- 2- EFL students fail to recognize complex lexical repetition of cohesive ties in written discourse.
- 3- EFL students are unfamiliar with equivalence (synonym) of cohesive ties in written discourse.
- 4- EFL students are not able to comprehend the clearness of the point of view of the writers create coherence in written discourse.
- 5- EFL students are not able to grasp the reasonable division of the paragraph or the essay in terms of the relevance of ideas in written discourse.
- 6- EFL students are not able to recognize suitable and sensible conclusion of the topic in written discourse.

5.2 Conclusion

This study deals with the analysis and evaluation the difficulties faced by students in using cohesive categories in discourse in five chapters.

In chapter one, the researcher has introduced a brief background of the study, statement of the research problems, significance of the study, objectives of the study, questions of the study, hypotheses of the study, method, population and sampling, instrument of data collection, limitations as well as tools.

Chapter two introduces the theoretical framework related to using with regard to cohesion and coherence and concluding with previous studies.

Chapter three presents the research methodology two instruments of data collection have been used diacaustic test for students and questionnaire for EFL teachers.

In chapter four the results of the tests and the questionnaire have been analyzed statistically by using SPSS program. Then each of two questions and hypotheses have been discussed and answered respectively according to the results. Consequently, significant findings show that EFL students are not familiar with the interrelations of ideas to one another of coherence in written discourse.

Finally, in chapter five, the research summary, main findings, recommendations and suggestions for further studies have been clarified. The study has added some insights to English language learners as well as their teachers particularly in the field of education that relevant to using cohesive devices.

5.3 Recommendations

Considering the above-stated findings and results, the researcher recommends the following:

- 1- EFL students should be equipped with knowledge of effectiveness of the introductory paragraph (thesis statement) of coherence in written discourse.
- 2- EFL students should understand the relevance of ideas within written text to overall lecture of the topic to create coherence in written discourse.
- 3- Trained teachers should help students to widen their knowledge of coherence in written discourse.
- 4- EFL students should be able to grasp Antonym of cohesive ties in written discourse.
- 5- EFL students should be capable of clarifying superordinate of cohesive ties in written discourse.
- 6- Mother tongue interference should be avoided when utilizing lexical repetition in written discourse.

5.4 Suggestions for Further Studies

English academic writing is still an inviting area in the field of English languages teaching learning. Thus, the researcher would like to suggest teaching of cohesion categories should be modernized; teachers should adopt the appropriate techniques for teaching English academic writing. Thus, teacher should play a relatively more vital role in giving directions and teaching, students' improvements are mainly in the academic areas.

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- 74- <http://catdir.loc.gov/catdir/samples/cam034/2002074049.pdf>
- 75- http://www2.gsu.edu/~wwwesl/Files/ALSL/cross_Linguistic_Features.pdf

APPENDIXES

APPENDIX(1)

Teachers' Questionnaire

Dear / Teacher

This questionnaire is a part of MA study entitled “**Investigating Difficulties Faced by EFL students in Using Cohesion Categories in Written Discourse**”. It's designed to find out your honest views for this study. Please respond to all the statements below carefully and honestly. Your responses will be kept strictly confidential, and will only be used for the purpose of this study. So, please put tick in front of your choice. Your assistance is highly appreciated.

NO	Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	EFL students overuse simple lexical repetition of cohesive tie in written discourse.					
2	EFL students cannot recognize complex lexical repetition of cohesive ties in written discourse.					
3	EFL students are unfamiliar with equivalence (synonym) of cohesive ties in written discourse.					
4	EFL students are not able to grasp Antonym of cohesive ties in written discourse.					

5	EFL students are not capable to clarify superordinate of cohesive ties in written discourse.					
6	Students cannot deal with hyponymy of cohesive ties in written discourse.					
7	Mother tongue interference should be avoided when utilizing lexical repetition in written discourse.					
8	EFL students are not equipping with knowledge of effectiveness of the introductory paragraph (thesis statement) of coherence in written discourse.					
9	EFL students are not able to understand the relevance of ideas within written text to overall lecture of the topic to create coherence in written discourse.					
10	EFL students are not familiar with the interrelations of ideas to one another of coherence in written discourse.					
11	EFL students are not able to comprehend the clearness of the point of view of the writers create coherence in written discourse.					

12	EFL students are not able to grasp the reasonable division of the paragraph or the essay in terms of the relevance of ideas in written discourse.					
13	EFL students are not able to recognize suitable and sensible conclusion of the topic in written discourse.					
14	Trained teachers can help students to widen their knowledge of coherence in written discourse.					

