PATTERNS OF LEXICAL COHESION IN EFL TEXTS

A Study of the Compositions of Students at the
Lebanese American University

NAHLA NOLA SHALHOUB EL-BACHA

UMI Number: U095226

UMI

Dissertation Publishing

ProQuest

To my husband, Rafic

To my children, Souraya and Chafic

Acknowledgements

Abstract

The aim of this research is to investigate lexical cohesion patterns in expository texts written by Arabic speaking students of English in the EFL Program at the Lebanese American University. Specifically, it investigates whether such patterns are an indicator of writing quality and whether there are differences between high and low holistically rated texts and study language (English and French) at the same level.

The procedure entailed selecting a random sample of 40 texts, 20 rated high and 20 rated low, from a corpus of 202 texts written at the beginning of the academic year 1993-94 (Diagnostic Test 1) and the same students' re-writing on the same topic at the end of the semester after three months of regular instruction (Diagnostic Test 2).

The method of analysis was first to ensure that the texts were validly and reliably scored. Both inter and intra rater reliability tests were carried out between the scores given in the EFL Program and the scores given using the Jacobs' ESL Composition Profile which gave highly significant correlation coefficients. Second, the texts were analyzed for lexical cohesion by frequency of bonds, distance of bonds and types of links. Correlations were calculated between these and text level. Comparisons were made of lexical cohesion between the high and low texts and between study languages (English and French) at the same level in the Diagnostic 1 and Diagnostic 2 separately and between the Diagnostic 1 and Diagnostic 2 texts. Third, samples of the analyzed texts were evaluated for non-marginal, central, and topic opening and closing sentences and the sub texts that were produced by them in order to test the claim that highly bonded sentences contribute to text coherence (as evaluated by the reader). Fourth, 26 of the student writers were interviewed concerning their comments on the course and on writing and lexical cohesion.

The findings indicate that there were no significant relations between lexical cohesion as identified by the frequency of bonds or bond distance and text level, but there were significant relations between frequency of a few types of links and text level indicating writing quality. There were no significant relations between study language at the same level on all variables. However, the high rated texts showed significantly higher frequencies of 1) 'sophisticated' types of links 2) bonded pairs of sentences over longer distances and 3) 'sophisticated' types of repetition in adjacent sentences. This indicates more maturity in writing than that found in the texts produced by the less proficient students. This also confirmed the holistic ratings of the texts. Findings further indicate that the sample sub texts formed from the highly bonded sentences showed satisfactory coherence ratings of organization of ideas. Together with the comments and suggestions of the students this confirmed the lexical cohesion analysis results and initial holistic text ratings. Based on the findings, a model showing the relation between cohesion and coherence is suggested.

Recommendations are made to base the syllabus on a more integrated lexical discoursal level. Suggestions for further research are given.

TABLE OF CONTENTS

PART III METHODOLOGY

Chapter Six - Research Design   129-163

Chapter Seven - Procedure for Cohesion Analysis   164-207

PART IV - RESEARCH RESULTS

Chapter Eight - General Text Characteristics   208-252

PART V - FURTHER INVESTIGATIONS

Chapter Ten-Contribution of Lexical Cohesion to Text Coherence 296-320

Chapter Eleven - Student Interviews   321-353

LIST OF ABBREVIATIONS/TERMS

AUB	American University of Beirut
D1	Diagnostic 1 text
D2	Diagnostic 2 text
EAP	English for Academic Purposes
EEE	English Entrance Exam
ELT	English Language Teaching
EFL	English as a Foreign Language
EHT	English high rated text
ELT	English low rated text
EMT	English mid rated text
FMT	French mid rated text
ESL	English as a Second Language
FACULTY	Academic Staff at the university
FI	Freshman I English Course
FII	Freshman II English Course
FHT	French high rated text
FLT	French low rated text
FRESHMAN	A first year university student
GPA	Students grade point average of courses
HT	High rated text
IELTS	International English Language Testing Service
L1	Student's Native Language
L2,3	Student's Second and Third Languages
LAU	Lebanese American University (formerly Beirut University College)
LOC	Writing Criteria of LAU/EFL Program: Language, Organization and Content
LT	Low rated text
MT	Mid rated text
NH	Null hypothesis(es)
SEMESTER	The term of university study, usually four months
SOPHOMORE	A second year university student
TOEFL	Test of English as a Foreign Language

LIST OF FIGURES

LIST OF TABLES

LIST OF TABLES IN APPENDICES

Appendix N

Appendix O

PART I - THE RESEARCH CONTEXT

CHAPTER ONE

INTRODUCTION

"These things he said in words. But much in his heart remained unsaid."
Gibran, The Prophet

This research deals with the analysis of lexical cohesion patterns in the expository texts written by Arabic non-native students of English in the English as a Foreign Language Program (EFL) at the Lebanese American University. The work describes the different patterns in texts rated at high and low proficiency levels and attempts to identify those patterns related to quality writing.

There is overwhelming agreement among researchers that learning to write goes beyond grammatically correct sentence production and that writing is a communicative act involving the organization of ideas over a text. An important element in this is cohesion, the surface linking devices within and between sentences. However, there is much controversy in the research as to if and how they contribute to writing quality. Since researchers and teachers agree that students learning English as a foreign language find difficulty in linking their sentences, the present study explores the role of cohesion in written texts in an attempt to obtain insights for the improvement of the teaching/learning of writing.

This chapter introduces the study by outlining: 1) the aim and central questions of the research, 2) the importance of English in education, 3) the educational system in Lebanon, 4) the LAU and the English as a Foreign Language Program (EFL Program), 5) the significance of the writing skill, 6) the significance of product analysis research, 7) the significance of the present study and 8) an overview of the following chapters.

I. Aim of the Research and the Central Questions

The *background problems* of student writing that were considered prior to carrying out the present study are first discussed.

There are few university English teachers in Lebanon who do not attest to the fact that their students' written work leaves much to be desired. Teachers experience the 'pains' of teaching and evaluating large quantities of writing yet find that students' texts are of relative poor quality even by the end of the semester. This is true of many of the students' writing in the EFL program at LAU. Learning English and following a course of study at the university

at the same time is an arduous task for the foreign or second language learners in Lebanon, especially when Arabic is their first language, French their second and English their third or fourth foreign language. This is the situation in several universities in Lebanon where English is the medium of instruction. Although there are efforts to help students improve their writing in the LAU EFL Program, the urgent question remains as to how should this program more effectively help them learn to write more coherent texts which are very important for both university and future success. Ever since Shaughnessy's (1977) work with basic writers in America, researchers and teachers have been aware that there is more that they can do to help students in effective written communication above the sentence level. More recent studies in discourse analysis confirm the significance of cohesion and coherence in non-native students' writing and the possibilities of helping them to write less awkwardly using better strategies in making texts more coherent (Carter, 1987; Carter and McCarthy, 1988; Kroll, 1990; Swales, 1990; Hoey, 1991a; Hatch, 1992; Reid, 1993; Cope and Kalantzis, 1993; Halliday and Martin, 1993). Even more importantly, lexical cohesion has been shown to be significant in students' academic writing (Stotsky, 1983; Hoey, 1991a). Therefore, this study focused on cohesion in an attempt to find some answers to the problems of our students' writing.

Since Hoey's (1991a) work in lexical cohesion is central to the present research, his figurative definition of cohesion is given here as a starting point. He makes an analogy between the way sentences link with one another to form a written text and the way one research study links with other research work to make a world of meaningful research. In this sense, the present research can be considered linked to Hoey's work and viewed as an extension. His concluding remarks on his book provide the starting point for this study.

> "... it has done no more than suggest an extension to existing systems of description that make use of the notion of cohesion. Nothing has been said about the applicability of what we have been describing to speech. Little has been said about the implications for genre study (nor of the implications of genre study for our analytical approach). We have not tried to define the lexical item and our use of the orthographic sentence as a unit has left some important questions unanswered... But books have to end somewhere, and this one will have served its purpose if it encourages readers to bond their own sentences to mine (whether in harmony or contradiction) and to add what they have to say to the endlesly expanding net that is the sum of all human discourse."(ibid., p.245)

Thus, the *aim* of the present study is an attempt to better understand the students' composing processes in the EFL texts through the analysis of the cohesion features. In this attempt, the research compares the lexical cohesion of essays, one set written at the beginning of the semester (in essays hereafter referred to as *Diagnostic 1 or D1* text) and another set

written at the end of the semester (in essays hereafter referred to as *Diagnostic 2 or D2* text) as evaluated by the teachers at high and low proficiency levels. The aims of the study can be viewed under major and minor headings.

The study has two main aims:

1. To find if there is any relationship between lexical cohesion and text level and students' study language (French or English) in Diagnostic 1 and 2 texts.
2. To find if there is any difference in lexical cohesion in a) Diagnostic 1 and 2 texts and b) between Diagnostic 1 and 2 texts by level and students' study language.

The study has three minor aims:

1. To test the claim that cohesion, specifically lexical, contributes to coherence in texts
2. To obtain comments through student interviews on their writing
3. To make some recommendations for the teaching/learning of essay writing.

Specifically, the study attempts to answer the following four central research questions based on the two major aims (see Chapter Nine for related hypotheses):

The Four Central Research Questions:

Based on the First Major Aim

1. Is lexical cohesion (as outlined by the criteria) an indicator of writing proficiency in the expository EFL texts in the Freshman English I course?

Based on the Second Major Aim

2. Are there differences in *frequency* of lexical cohesion in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?
3. Are there differences in the *distance* of lexical cohesion in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?
4. Are there differences in *frequency of type* of lexical cohesion in 1) the whole text and 2) in adjacent sentences in holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

II. Significance of English in Education

This study is carried out on texts written by non-native students of English attending first year university in which the medium of instruction is English and, therefore, an initial word on the significance of the language is in order. Very few would deny the importance and prominence of English in the world today. The recent English 2000 survey carried out around the world in approximately 80 countries by the British Council (1995) found that 'responses tend to support views that English will remain the world's chosen language of international communication well into the twenty-first century..' (The British Council, 1995, p. 10). Two other interesting results from the survey which are related to the present research were the need shown for more training of English teachers and research in the field to 'drive ELT

forward with an emphasis on international collaboration' (The British Council, p.11). Clearly, English will be needed by students around the world. Therefore, the effort to improve LAU students' language skills in a competitive world takes on more significance. This is reflected in the situation in Lebanon where English is of major importance as a medium in education and business sectors.

However, while a knowledge of English is viewed as imperative in today's world, there is caution expressed in the literature that since there are many 'varieties' of English spoken around the world (ibid., p.10) there is a need for flexibility in teaching, learning and research approaches in order to obtain relevant insights based on different community needs (Kachru, 1992). As English is being increasingly used worldwide, the teaching of English in the last quarter of the twentieth century has focused on learners who are studying English as a second, third or sometimes even a fourth language. This has led to the teaching/learning of English as a second or foreign language with different techniques and approaches compared to those used in the teaching/learning of English to native speakers (referred to as English as a first or native language). However, often there is confusion in the research literature concerning the terms *foreign* or *second*; some researchers and teachers use the terms interchangeably and others make distinctions between the two. Grabe and Kaplan (1996) make a distinction between EFL and ESL courses in that the former are those in which students '...need to learn English (or in this case need to learn to *write* in English), who live in countries in which English is not regularly spoken or written as a language of the community ...[whereas the latter] include those students needing to learn English who live in countries where English is a language, or *the* language, of the community' (p.24). Yazigi (1991, p.11) applies this distinction between foreign and second language to Lebanon and notes that English is taught as a foreign language in Lebanon at large and at the university in particular as English is not usually the main medium of discourse outside the classroom or businesses but rather Arabic, French, Armenian or other languages are the focused languages of daily use. For purposes of the present research, the terms EFL and ESL will be used interchangeably to refer to Grabe and Kaplan's (1996) connotation of EFL. They are also used in a broad sense to refer to English as an additional language whether it is the students' second, third, or fourth language etc. (Johnson and Roen, 1989, p.5).

III. System of Education in Lebanon

Since the present research deals with academic writing, it is relevant to describe the educational system in Lebanon. Although cultural, religious and political factors have influenced in various degrees the educational system in Lebanon, especially during the period of the Lebanese civil war, 1975-1991 and its aftermath, the reader is referred to other sources for a full account of this (Sirriyeh, 1989; Yazigi, R., 1991; Yazigi, A., 1992).

The system of education in Lebanon will be described in four parts: 1) the general language situation and educational background, 2) the pre-university system, 3) the university system and 4) the implications of the past and present on future educational developments.

A. General Language Situation and Educational Background

It is obvious to anyone visiting Lebanon that there are both American and French influences in both education and public sectors with the latter being more prevalent. Thus, more than half of the population are bilingual, speaking French and Arabic or English and Arabic, and many are tri-lingual and multi-lingual, speaking French, English (and/or another language such as Armenian) and Arabic. In almost all sectors of society, a mixture of languages is in daily use. So during a conversation there is frequent code switching between languages. The literacy level in Lebanon is relatively high but due to the civil war (1975-1991) '...education in Lebanon has suffered from its isolation and the lack of innovation and investment. Its quality has decreased as has the numbers enrolled. Illiterates, for example, have grown to an unprecedented 380,000' (UNESCO, 1991a in Husen, 1994, p.3350). However, education is considered very important and high educational attainment is prestigous: families do their utmost (even selling their land) to educate their children. Husen confirms that "education ranks very high on the social scale of values..." (ibid., p.3351).

Tables 1.1 and 1.2 show the enrollment figures in both high school and university for 1974-75 and 1987 and by sex for 1988-89 respectively. Although enrollment increased more at the university level by comparison with the high school figures, the total student body increase between 1975 and 1987 was quite minimal. However, it is really remarkable that the 1976 level was maintained in spite of the extremely difficult situation in the country at the time. Also, although male students continue to outnumber females, the increase in the female participation rate in education over the years is very significant.

Table 1.1 **Development of Student Enrollment 1974-75 and 1986-87**

Level and Type	1974-75	1986-87
Pre-university general education	756,992	808,468
Pre-university technical education	25,791	31,045
University education	33,427	83,891
Total	**816,210**	**923,404**

(Husen 1994, p.3351)

Table 1.2 **Student Enrollment by Level of Education and by Sex 1988-89**

Age Group	Level	Enrollment	Gross Enrollment Ratios*		
			Total	Male	Female
4-6	Kindergarten	131,217	-	-	-
6-11	Primary	346,534	125	116	106
11-15	Intermediate	172,424			
			66+	61	57
15-18	Secondary	695,554			
Over 18	University	83,891	24.8	31	18.9

* Male and female gross enrollment ratios are for 1988
+ Intermediate and secondary gross enrollment ratios are combined

(Husen, 1994, p.3352)

It is also interesting to note the professional background of the teaching staff at both the pre-university and tertiary levels of education. Table 1.3 below indicates the percentage of qualified teachers in 1974-75 and 1986-87 at the high school and university level. It is observed that the universities suffered the greatest loss of qualified teachers during the civil war in Lebanon. This was due to the fact that most teachers at the pre-university level are locals with Bachelor Degrees or lower and, therefore, had fewer possibilities than those at the university level with higher degrees to find jobs abroad. In fact, during the sixteen years of war, Lebanon suffered from a 'brain drain' in most professional areas. This was most significant. at the university level.

Table 1.3 **Percentage of Qualified Teachers 1974-75 and 1986-87**

Category	1974-75	1986-87
Primary/intermediate teacher-training colleges	44.2	42.0
University degrees	9.8	1.0
Baccalaureate or equivalent	35.0	23.1
Primary education or below	11.0	33.9

(Husen, 1994, p.3354)

All students in Lebanon must learn a second language besides Arabic at school. The two major second languages are English and French which students usually begin learning in the elementary classes along with Arabic and which are the the media of instruction with only

Arabic literature and language courses taught in Arabic. If most of the curriculum uses French as the medium of instruction, students are referred to as being *French educated* and if most use English, they are referred to as being *English educated.* Being in either system of education does not exclude study of the other language as a third language. For example, a *French educated* student would also be required to study from three to five hours per week of English language and vice versa (see Yazigi, R.,1991; Yazigi, A., 1992 for a detailed account of the languages taught in pre-university classes in Lebanon). Husen (1994) comments on the study of languages in Lebanon:

> "More than half of the Lebanese people are bilingual. At every level of schooling, students learn two languages: Arabic (the official language) and French (75% of all school students) or English (25%). Students frequently learn a third language, particularly in private schools." (p.3350)

B. Pre-University Education System

There are two types of schools in Lebanon, government (public) and private sectors with the former being attended by students from lower income and social levels and the latter from higher levels. Also, there are two types of private schools, those that are run by Lebanese ownership and those that were set up by British, French or American missionaries in the 18th and 19th centuries (For a full account of the educational system see Swales, 1984; Yazigi, A., 1992).

Table 1.4 shows the student enrollment in 1974-75 and 1988-89. It clearly indicates that the private schools in which fees are paid by the students (i.e. the schools which are not helped by the government but are private-aided) increased from 1974-1989. In fact, it was these private schools that remained open during the most difficult times in Lebanon and were the main source of education when the country was in crisis. Most government institutions were severely affected and many closed for long periods.

Table 1.4   Development of Pre-University Enrollment by Sector 1974-75 and 1988-89

	1974-75		1988-89	
	N	%	N	%
Public	320,825	42.4	237,054	32.9
Private/fees	195,924	25.9	352,515	48.9
Private/aided	240,243	31.7	130,146	18.2
Total	756,992	100	719,715	100

(Husen, 1994, p.3352)

At the end of the primary school period, students are issued with the Brevet Diploma. At the completion of the high school years, a Baccalaureate Diploma (French and/or Lebanese) is awarded, making students eligible for university study.

Another change is the increase in the number of teachers at the pre-university level between 1974 and 1988. Table 1.5 indicates that the number of teachers in the public sector increased, while those in the private-aided sector decreased. The student-teacher ratio decreased (17.9:1 in 1975 to 13.8:1 in 1989) showing also the increase in the number of teachers (UNESCO, 1991b in Husen, 1994, p.3354). However, as Table 1.3 indicates, their qualifications did not improve.

Table 1.5 **Development in the Number of Teachers 1974-75 and 1988**

	1974-75	1988-89
Public		
enrollment	320,825	237,054
no.of teachers	21,244	26,895
pupil-teacher ratio	15.1:1	8.8:1
Private/fee		
enrollment	240,243	352,515
no.of teachers	14,250	20,305
pupil-teacher ratio	16.9:1	17.3:1
Private/aided		
enrollment	195,924	130,146
no.of teachers	6,691	4,817
pupil-teacher ratio	29.3:1	27.0:1
Total		
enrollment	756,992	719,715
no.of teachers	42,185	52,017
pupil-teacher ratio	17.9:1	13.8:1

(Husen, 1994, p.3354)

C. University Educational System

There are several institutions of higher learning in Lebanon. The main foreign ones are the American University of Beirut (AUB) founded by American missionaries in 1886 and the Lebanese American University (LAU) (formerly known as Beirut University College) also founded by American missionaries in 1924. There is also the Saint-Joseph University which was founded in the late 19th century by the French, and a state university referred to as The Lebanese University which has the largest student body of approximately 40,000 students.

Table 1.6 below shows the enrollment figures for the different universities for 1986-87.

Table 1.6   Higher Education Enrollments 1986-87

Institution	Enrollment	Percent
Lebanese University	39,654	47.3
AUB	5,308	6.3
Saint-Joseph Univ.	5,404	6.4
BUC (LAU)	4,300	5.2
Saint-Esprit Univ.	3,055	3.6
Arab Univ.of Beirut	24,039	28.7
Lebanese Academy	555	0.6
Others	1,576	1.9

(Husen, 1994, p.3352)

Both the AUB and LAU use English as the medium of instruction and follow the American system of credits and semesters. Both universities have an English as a Foreign Language Program which prepares students to cope with their academic course work. Although much work continues to be done in improving the programs, qualified teachers remain scarce.

D. Past, Present and Future

Lebanon's unique position between East and West has made it open to a western type of education. The country is very receptive to foreign languages and this is a major factor which distinguishes Lebanon from the Arab countries that surround it. The sixteen years of war, 1975-1991, did interrupt growth and development in the educational sectors quite severely, but in the past few years there have been plans set up for the reconstruction of Lebanon. Specifically, the BUC has grown into a university (LAU), other schools and universities are also expanding and the governmental Ministry of Education and the Center for Educational Research and Development in conjunction with the Lebanese University are presently in the process of formulating a new national curriculum. The most daunting challenge for any country in such a post-war situation is the reconstruction process, but the optimism and hard work with which the Lebanese are facing their new challenges are to be admired. Husen (1994, p.3316) outlines specifically the work needed to be done at both the high school and university levels which entails building infrastructures, educational programs, training qualified personnel, and a whole new national curriculum.

It is in this context that the present research was conceived, formulated and conducted. It is hoped that this small contribution may help Lebanese university teachers to better understand students' work in order to help them develop their linguistic tools since, after all, these students are the future of the country and English is a major means for them to realize their aspirations.

IV. LAU and the English Language Program

The present study was carried out at the Lebanese American University (formerly Beirut University College) which was founded in 1924 and now consists of three campuses, Beirut, Byblos (also referred to as Jbail) and Sidon with approximately a total of 4,500 students in the academic year 1996-97 (LAU, 1996) catering to Lebanon and the Middle East Region (see map of Lebanon in Appendix A). The Byblos Branch, where the research was done, was founded in 1978 in the Eastern sector of the capital, Beirut, to cater to students who could not commute to the Western part of the capital due to the political situation at the time when civil war and severe disturbances disrupted everyday life including education and commuting to the university. Since then, the Byblos branch has witnessed fast and dramatic developments. It has grown from a handful of students and a few faculty members to approximately 1,400 students during the academic year 1996-97, 50 full time equivalent academic staff and three major schools of Business, Engineering and Architecture, Arts and Sciences which offer a variety of majors at both the undergraduate and graduate levels (see Appendix B for historical details of LAU).

All three branches have an English as a Foreign Language Program for which all students are obliged to register during the first year or two of their university course work. The *purpose* of the English courses is to give the students an advanced working knowledge in the language skills of writing, reading, speaking and listening so that they may be better able to cope with their university course work which is through the medium of English for all courses (except Arabic language and literature). In this context, English is to be used mainly for academic purposes (see Chapter Three) and, therefore, skills in writing research papers, reports and essays comprise a major part of the program. The present study, however, will be limited to the *essay writing* (*composition* will be used interchangeably with *essay* hereafter).

Although there are five English courses in the program (see Appendix C), the actual number of courses for which students register depends upon their proficiency level on the LAU English Entrance Exam on entering the university. This exam is made up of objective questions covering grammar, writing, vocabulary and reading skills and a written composition. Other international exams are also accepted for entry such as the Test of English as a Foreign Language (TOEFL) administered by the USA and the International English Language Testing Service Test (IELTS) administered by the United Kingdom, Australia, etc. (see Chapter Three)

The Freshman English I (or 5511) course (referred to hereafter as *FI*) offered intensive classes of five hours per week (from which the data for the present study was selected) for students who had scored between 500-599 on the LAU English Entrance Exam (EEE) equivalent to 525-624 on the Test of English as a Foreign Language (TOEFL) based on AUB's (1981) correlations, or approximately between levels 5.5-7 on IELTS (Geranpayeh, 1994). Classes of three hours per week were offered for sophomore entering students who had scored between 600 and 699 on the EEE, (equivalent to 625-674 on the TOEFL (AUB, 1981), or between levels 7-8 on IELTS (ibid., 1994) but whose writing was still of FI level as determined by a writing placement test given by the program's staff upon entrance. The course objectives for both the five and three hour FI classes were similar. Upon successful completion of the FI course, students were promoted to Freshman English II (5512) and then to sophomore level English (Sophomore Rhetoric 5522 and Communication Arts 5521).

A much sought after objective is to better develop insights into students' writing above the sentence level with emphasis on cohesion and coherence is a much sought after objective. At present in the FI course, students are referred to lists of key words in their textbooks to help with coherence and teachers try hard to have them produce a piece of coherent text. A typical page on cohesive devices in the textbook would include how to make writing more coherent by using parallel structure, pronoun reference, repetition of key words, and transitions (including the use of conjunctions) each followed by a sentence or two or text as an example (e.g. Oshima and Hogue, 1991; Langan, 1993). There is a need for more effective learning strategies.

V. Significance of the Writing Skill

Studies have shown that writing as a skill in its own right helps to develop students' cognitive skills and, therefore, their learning (see chapter Three). It is crucial in any educational institution that students should develop a certain proficiency level in academic writing so that they may take lecture notes, reveal their ability on exams, write reports and conduct small research projects and so on, though they may use such writing skills to different extents according to the discipline they are in. Given this emphasis on writing for note-taking, course work and assessment, it is hard to visualize any student learning adequately without an appropriate standard of writing. Most of the academic staff at LAU attest to this. It is likely that most students are also aware of this. In fact, it is has been found that students are more instrumentally than integratively motivated to learn a language when they find it necessary for

success in their academic course work (Zughoul 1982 in Zughoul 1985, Zughoul 1985 and Yazigi 1991). Kroll (1979) comments,

> "...I do not think it is difficult to motivate students to perform writing tasks which they feel have some practical applications to their lives. What has always been difficult has been motivating them to perform writing tasks they consider far removed from the reality of their other courses, to say nothing of their outside lives." (p.227)

Many studies on EFL writing have been carried out in the West through student and teacher surveys and needs analysis procedures to find the particular writing tasks which students need in their academic courses (Kroll, 1979; Ostler, 1980; Horowitz 1986) and in the Arab world in Jordan (Abuhamdia, 1984; Zughoul 1985; Badr, 1992), in Bahrain (Abboud and Shaaban 1984), and in Lebanon (Yazigi, 1991; Bacha 1993). Although the essay as one form of teaching writing at the university has been questioned, many researchers still find that it has its place in helping students to write better, and, of course, the essay still has a major role in written exams in a wide range of university courses (see Chapter Three).

A. Student and Faculty Perceptions of the Significance of the Writing Skill in their Course Work Compared to the Other Skills

Although the importance of writing at the university level cannot be denied, it is interesting to assess its relative importance compared to the other language skills as viewed by faculty and students. Johns (1981, p.51) analysed 140 'academic skills' questionnaires to 200 randomly selected university faculty members from all departments at San Diego University in the US in order to determine which skills were thought most essential to non-native speaker success in university classes. The findings indicated that 50% of the faculty considered the *reading* skill as the most essential, whereas *listening comprehension* was the second most important (47%), *writing* the third (23%) and *speaking* the last (9.5%). Johns concludes that "Teaching of the productive skills of writing and speaking, rather than being central to the curriculum, should be secondary to listening and reading activities. Writing, for example, could involve the paraphrase or summary of reading materials or the organization and rewriting of lecture notes" (ibid., p.56). Johns calls for more in depth work in this area (ibid., p.56); perhaps even a better constructed questionnaire. However, it is clear that there is an interconnectedness among the four skills, and perhaps it is not a matter of which skill is most important but which one is being emphasized for any particular academic task. One can see how reading and writing skills are closely related, for if students are to communicate their thoughts about what they have read, it is necessary to have a certain level of proficiency in the

writing skill, since, in practice, such thoughts are most frequently shown through notes, essays, summaries or report writing. Students may be reading for most of the semester, but when the crucial time comes for them to write a research paper or sit for a final exam, their course assessment is generally determined by how well they are able to communicate ideas in writing. Oral assessment is rare.

Zughoul (1985) also carried out a survey on the perception of language needs at Jordan University on 1,147 students, and 90 faculty members. It was found that both students and faculty rate *listening comprehension* as the most necessary skill for academic work. Faculty rated *reading comprehension* as second, *writing* as third and *speaking* as last. Students rated the *speaking skill* as second, *reading* as third and *writing* as last. Zughoul (1985) explains the listening comprehension as being rated first because an understanding of lectures is a prerequisite for passing university courses but says that the faculty priority order of the remaining skills was more justifiable than the students' since reading and writing are more important for success at the university than the speaking skill (pp.142-3). The differences in students' and teachers' perceptions of the academic importance of the skills is highly revealing, however, since apparently students underrated writing.

During the pilot study for the present work, the researcher adapted Johns (1981) questionnaire and surveyed 400 students (368 responded) in the LAU, Byblos EFL Program in the various English courses and 50 faculty members (15 responded) in the various disciplines on the necessary language skills for success in students' regular course work at the university. The main findings were that the receptive skills were rated as more important with an 80% of the faculty considering the *listening* skill as the most essential, *reading* the second most important (72%), *speaking* the third (52%) and *writing* the last (48%). That listening and reading skills are rated as the most important (Bacha, 1993) by the faculty is a similar finding to both Johns' and Zughoul's studies.

Students, in comparison, rated the productive skills as more necessary; a 64% of the students rated the *writing* skill as the most necessary, 52% rated the *speaking* as second, and 50% rated both the *listening* and *reading* skills as third equally (Bacha, 1993). (Percentages may add up to higher than 100 since some faculty and students rated more than one skill at the same priority level.)

The results of the above surveys (Johns, 1981; Zughoul, 1985; Bacha, 1993) are summarized in Table 1.7 below. Although statistical tests of significance were not carried out on this data since this is not the aim of the present research, it seems that students and faculty

hold different perceptions at LAU, Byblos on the priority of necessary skills for success in students' academic course work. Students may have rated writing as the most important since

Table 1.7 **Student and Faculty Perceptions of the Significance of the Language Skills to Students' Academic Course Work Indicated in Priority Order (1-4, 1 being top priority)**

Skills	Johns (1981)		Zughoul(1985)		Bacha (1993)	
	Std.	Fac.	Std.	Fac.	Std.	Fac.
Listening	-	2	1	1	3	1
Speaking	-	4	2	4	2	3
Reading	-	1	3	2	3	2
Writing	-	3	4	3	1	4

the questionnaire was given to them to fill out during the English Laboratory sessions at a time when students are doing a lot of writing in their English courses or because they perceive this as their weakest skill and need more work in this area. It is equally possible that many students realize that their assessment ultimately depends on writing (see Chapter Eleven). Faculty rated the listening comprehension skill as the most important perhaps because faculty find it important for students to understand class lectures. More research, however, needs to be done in this area at LAU and with larger faculty samples.

Although the evidence is sparse, it can be concluded that though writing is important at the university level, the tasks related to the students' academic course work should be carefully identified and the roles of the various language skills at the university should be clear to both students in the EFL Programs and the faculty in the disciplines.

B. Student and Faculty Perceptions of Students' Writing Ability

Related to the significance of writing in the university context, it is important to find out how students perceive their own writing abilities and how faculty view the students' abilities. A study carried out by Yazigi (1991) at the AUB and LAU, found that the students perceived themselves as having a higher level of competence in the items related to the *reading* and *listening* skills, 85% and 81% respectively, than those in *writing* and *speaking*, 73% and 72% respectively with items related to academic achievement and everyday life being higher (pp.156-8). Faculty perceived the ability of the students as significantly lower (p=<.005) than the students did in all four skills on the items surveyed (p.232). Yazigi concluded that students tend to overestimate their abilities in the language.

Zughoul's (1985) finding is similar to Yazigi's (1991): when faculty and student perceptions of student writing ability were compared, students' ratings were higher: 81% of

the students rated themselves as "good" and above in writing, while 14% of the faculty gave such a rating (p.141). Preliminary results from a survey carried out on 202 students at LAU, Byblos (Bacha, 1994) also confirm that students tend to overestimate their English abilities in general and writing in particular.

VI. Significance of Product Analysis Research

With the recognition of the importance of researching the *writing process* in composition in the last decade and a half, the writing *product* as a valid focus for research and analysis of students' writing has been questioned by some researchers (Raimes, 1985; Zamel, 1982, 1983, 1985). While these scholars view the product as important, they believe that students go through stages in the writing process which are very important to note and which product analysis does not reveal as effectively as process analysis. There is, however, a trend to emphasize a combination of both (Connor and Kaplan, 1987; Robinson, 1988). Also, many researchers find that studies on the product complement process approaches and in fact are still necessary, even without recourse to process analysis (Hamps-Lyons, 1986b; Witte and Cherry, 1986; Chaudron, 1987; Connor and Kaplan, 1987; Applebee,1986 and Stein, 1986 in Chaudron, 1987; Cope and Kalantzis, 1993). Hamps-Lyons (1986b) mentions that Zamel (1983) had overstated her case in finding little value in product research and comments:

> "...there remains a role for research into the product." (p.81)
> "I believe that by looking at the interaction between the student's product and the score assigned, we can learn a good deal about what needs to be taught and perhaps something about how it should be taught." (p.81)

VII. Significance of the Study

The significance of this study is that the data were collected as part of the regular EFL Program classes at the university. This is thus a realistic and authentic situation which is very important for the validity of the results. Also, writing is a major part of the EFL Program at LAU and at other universities in Lebanon, and to the researcher's knowledge, this study is the first of its kind in Lebanon. Second, and again to the researcher's knowledge, it is the first time that an application of Hoey's (1991a) lexical cohesive analysis has been applied to non-native writers of texts in English, certainly the first such application to Arabic speaking writers of English in the Near East. Third, it is significant in that it attempts to explore in some depth new frontiers in cohesive studies and touch upon the much debated area of the contribution of cohesion to text coherence. Fourth, the researcher hopes that a few answers may be found to the many questions that the teachers at LAU have concerning the problems of their students' writing, with the aim of helping the students write better in order to perform more successfully

in English and to reach higher attainments in their courses at the university. In these respects it is an important exploratory study, hopefully laying the foundation for much needed further research in this field.

VIII. Overview of the Present Work

The work is presented in six major parts: *Part I* has introduced *the research context* in outlining the specific aims and central questions and giving the significance of the writing skill in English in the Lebanese context and specifically academic writing at the university level.

Part II focuses on *the perspectives on student academic writing* over four chapters: *Chapter Two* introduces the concept of discourse analysis and two related fields of genre studies and contrastive analysis that have contributed to understanding both spoken and written discourse. *Chapter Three* details the nature of written discourse and argues that although the features of written and oral texts vary and overlap, a knowledge by both students and teachers of the typical features of written texts may help in the development of writing proficiency. The chapter outlines some theories of writing and their influences on research and the teaching/learning situation in EFL Composition Development. The chapter concludes with a description of writing evaluative procedures. *Chapter Four* focuses on reviewing what linguists have considered the nature of academic expository texts to be at both the micro and macro levels for a better understanding on how to develop writers' skills. A few theories of the place of text within the language are outlined. Part II ends with *Chapter Five* which stresses the importance of cohesion, specifically lexical cohesion in writing and the various taxonomies of cohesion that linguists have set up to describe its place in texts. The chapter concludes with reviewing the research studies carried out in the West and in the Arab world showing the controversy over the degree to which cohesion is an indicator of writing quality and coherence in written texts and the need for studies to be carried out in Lebanon. This chapter concludes the review of the literature.

Part III discusses *the research design and methodology*: *Chapter Six* describes the research design in data collection and holistically rating the texts. *Chapter Seven* details the lexical cohesive analytical procedure as used by Hoey (1991a) and the adaptation of it to be used in the present study.

Part IV presents the *research results and discussions* over four chapters. *Chapter Eight* gives the results of the general characteristics of the texts of the holistic ratings that determined the high and low texts and the relation between text length and level. *Chapter*

Nine outlines in detail the results of the four tested central research questions and the related hypotheses in connection with the lexical cohesive analysis of the texts.

Part V gives further investigations and discussions of text cohesion: *Chapter Ten* reports the results of preliminary investigations in how lexical cohesion contributes to the coherence of the texts and a model of the relationship between cohesion and coherence is suggested. *Chapter Eleven* describes the interviews carried out with a sample of the writers of the texts and draws some relationships between their comments and the results of the lexical cohesion analysis.

Part VI concludes the work in *Chapter Twelve* by summarizing the results obtained, making recommendations for the teaching/learning of writing and giving suggestions for future research.

CHAPTER TWO

DISCOURSE ANALYSIS

"The musician may sing to you of the rhythm which is in all
space, but he cannot give you the ear which arrests the rhythm
nor the voice that echoes it ."
                                        Gibran, The Prophet

Research into discourse analysis has offered many insights into the teaching of writing; for example, into text types and the relationships between texts and their contexts (McCarthy, 1991, p.149). Therefore, a look at what the field has contributed is significant for the present study. This chapter gives a review of some research in discourse analysis with a focus on genre and contrastive analysis studies relevant to the present study.

I.   Definition of Discourse Analysis

Many linguists have attempted to define discourse analysis (de Beaugrande and Dressler, 1981; Brown and Yule, 1986; Stubbs, 1983; Widdowson, 1978; vanDijk, 1985; Coulthard, 1985; Potter, 1987; Cook, 1989; McCarthy, 1991; Hatch, 1992, van Dijk, 1997a, 1997b, among others). They indicate that it is difficult to be definitive about an area in linguistics which is relatively new and in which research is still developing. Potter (1987) shows the extent of the difficulty of limiting discourse analysis to any one field. Bold type is added by the present researcher.

> "...The label 'discourse analysis' has been used as a generic term for
> virtually all research concerned with language in its **social** and **cognitive**
> context (Brown & Yule, 1983; Coulthard, 1977; van Dijk, 1985) as a
> description for studies focusing only on **linguistic** units above the level
> of the sentence (Stubbs, 1983), as the correct term for research concerned
> with **cohesion** and connectedness across sentences or turns of **talk** (Tannen,
> 1984; van Dijk and Kintsch, 1983) and to cover developments stemming from
> **structuralism and semiotics** (Foucault, 1971; Pecheux, 1982). It is a
> field in which it is perfectly possible to have two books on discourse analysis
> with no overlap in content at all (cf. MacDonell, 1986; Stubbs, 1983)" (p.6)

In fact, part of the problem in defining discourse analysis is probably due to the fact that it has grown into a multi-disciplinary field of inquiry as Potter's (1987) description of discourse analysis indicates. Extensive illustration of this multidisciplinary nature of current approaches to discourse analysis is given in Van Dijk (1985, 1997a, 1997b). However, there is general agreement among scholars that discourse analysis is the study of language (both oral and written) in use. Hatch (1992) defines it adequately.

"Discourse analysis is the study of the language of communication - spoken or written. The system that emerges out of the data shows that communication is an interlocking social, cognitive, and linguistic enterprise." (p.1)

McCarthy (1991) further relates it to the teaching/learning context.

"Discourse analysis has grown into a wide-ranging and heterogeneous discipline which finds its unity in the description of language above the sentence and an interest in the contexts and cultural influences which affect language in use. It is also now increasingly, forming a backdrop to research in applied linguistics and second language learning and teaching in particular." (p.7)

Thus, to take McCarthy's (1991) view of discourse analysis, the present study can be seen as one type of *discourse analysis*, the analysis of linguistic features, *lexical cohesion*, above the sentence in written texts, *the essay*, in a particular context, *academic ESL/EFL setting* with *cultural considerations* taken into account. A look at some relevant research in discourse analysis is given in the following section.

II. Development of Research in Discourse Analysis

Historically, modern linguists began with the study of a single sentence (Fries, 1952; Harris, 1952) and a few attempts at 'text' analysis (Pike, 1967; van Dijk, 1972, 1977; Longacre, 1968 in Khalil, 1989) which Khalil points out is 'in keeping with the general interest expressed by theoretical linguists in sentence grammar' (ibid., p.359). Linguists were concerned with understanding the constituent parts of the sentences and teachers with having their students internalizing the rules of grammar through the manipulation of sentence level exercises. The grammar-translation, audio-lingual, and transformational adherents all had this aim in common. Hunt's (1970, 1977) T-unit (terminal unit), a sentence with all its subordinate parts, became the basis for much of this research.

In the 1970's, linguists began to realize the limitations of such theories (e.g. Coulthard, 1975) and teachers and researchers saw with exasperation that correct written sentence production did not necessarily mean that a piece of writing was clear to the reader (Gardner, 1984; Brown and Yule, 1986; Witte and Cherry, 1986; Khalil, 1989; Ragan, 1989; Celce-Murcia, 1991; Fotos, 1991; Keh, 1991, among others). They saw the need for more communicative based tasks that incorporate the structure as part of whole written texts. As Witte and Cherry (1986) point out "Written texts...consist of sequences of semantically related sentences or T-units linked together to meet some communicative purpose"(p.117). Linguists and researchers began to look beyond the sentence boundaries to study what makes them hang

together. These studies investigated 'text' (longer stretches of language seen as a semantic unit) rather than the sentence as the basic unit of language. De Beaugrande and Dressler (1981) stress that " 'Discourse' and 'text' have been introduced as legitimate units of linguistic analysis beyond the sentence level", (p.xii) and Halliday and Hasan (1976,1989) define a 'text' as a '...unit of language in use. ... not a grammatical unit, like a clause or a sentence.' Text is said to have texture created through features such as cohesion (1976, pp.1-2) and is a semantic unit which is part of a context and not just as a series of sentences (1989).

"...Language that is functional is doing some job in context as opposed
to isolated words or sentences...It might be spoken or written..."
"It is both product and process" (p.10).

As a product, Halliday defines it as "an output to be studied in systematic terms", but as a process as a "continuous process of semantic choice, a movement through the network of meaning potential, with each set of choices constructing the environment for a further set". Therefore, one "cannot simply treat a theory of text as an extension of grammatical theory, and set up formal systems for deciding what text is" (ibid., p.10).

This led to the study of textual features such as cohesion and coherence (Beaugrande and Dressler, 1981) which in turn led to attempts at teaching and evaluating these features in foreign/second language composition classrooms in the hope that students' written work would improve.

Discourse analysts also investigated the sociological factors affecting language under the stimulus of speech act theory and pragmatics (Austin, 1962; Hymes, 1964; Searle, 1969; Grice, 1975; Leech, 1983; Levinson, 1983 in Witte and Cherry, 1986). The French in the early years were concerned with a structural approach in studying narratives (Foucault, 1971; Culler, 1975, 1976, 1983; in Potter, 1987) while the British headed by Halliday (1976) were more functional in approach to language and the study of texts. Influenced by this, Sinclair and Coulthard (1975) developed a speech model for discourse analysis based on a hierarchy of units.

The North American tradition is dominated by work by the ethnomethodologists (Gumperz and Hymes, 1972; Goffman, 1976; Tannen, 1984, 1989; Schriffrin, 1988 in Witte and Cherry, 1986) who study largely spoken discourse in social settings overlapping with the British work in pragmatics. Also, work based on psychological theories, specifically '...work on the comprehension of texts, their mental organization when stored in memory, and the role of schemata and scripts for discourse processing' was becoming important in the 1980's (van

Dijk and Kintch, 1983; Bower and Cirilo, 1985; Frederickson, 1986, among others in Potter, 1987, p.7) as well as work in discourse analysis by the socio-psychologists (see Potter, 1987).

For *written* modes, Witte and Cherry (1986, p.118) categorize the research in composition above the sentence level carried out in the United States under four approaches:

1. Relationships between Sentences

These are mainly studies focused on the relations between sentences 'on the basis of functional slots or semantic levels of generality' (Christensen, 1965; Young and Becker, 1965; Becker, 1965; Rodgers, 1966; Karrfalt, 1968; Pitkin, 1969, 1977a, 1977b; Grady, 1971; D'Angelo, 1974; Nold and Davis, 1980; Fahnestock, 1983 in Cherry, 1986, p.118).

2. Discourse 'Modes'

This approach is based on traditional rhetorical theory and uses "discourse 'modes' to explain the ideational structure of texts (e.g. Moffett, 1968; D'Angelo, 1975, 1979; Kinneavy et.al., 1976 in Cherry, 1986, p. 118).

3. Semantic Meanings across Sentences

The studies in this approach are based on the cohesion theory of Halliday and Hasan (1976) and focus on words or phrases that extend meaning across sentences (Lybbert and Cummings, 1969; Winterowd, 1970, 1975; Starling, 1980; Witte and Faigley, 1981; King and Rentel, 1981, 1982; Markels, 1982; Rentel and King, 1983; Stotsky, 1983; Tierney and Mosenthal, 1983 in Cherry, 1986, p.118).

4. Textual Coherence in Extended Texts

Research in this approach 'draws, in part, on distinctions between given and new information to account for textual coherence in extended texts' (Williams, 1979a, 1979b; Dillon, 1981; Prince, 1981; Vande Kipple, 1982a, 1982b, 1985; Witte, 1983a, 1983b in Witte and Cherry, 1986, p.118).

The present study will be mainly concerned with the third and fourth approaches (see Chapters Four and Five).

III. Text and Context in Discourse Analysis in Relation to the Present Study

Much discourse analysis is concerned with two elements often with overlaps between them: the text (whether oral or written) and the context. In the former, a group of researchers have concentrated on the text itself describing the linguistic features in the text, referred to as the co-text (see Chapter Four). In the latter, other researchers have focused their studies on the sociological, psychological (e.g. Lambert, 1972; Johnson and Krug, 1980; Gardner, 1986 in Oller and Perkins, 1980; Yazigi, 1991 among others) and cultural influences on the

processing of texts (e.g. Grabe and Kaplan, 1996; see also section VI in this chapter). While the two approaches are interdependent, the focus of the present study will be on the written text, specifically the EFL composition and co-text with less attention to the outside contextual factors that brought about the text. The aim is to derive insights from the text to help the students improve their writing.

IV. Relevance of Discourse Analysis to Language Teaching and the Present Study

The present research draws upon Hatch's (1992) definition of discourse analysis as it relates to communication and McCarthy's (1991) reference to discourse analysis serving in the language learning process (both cited earlier). This study will be concerned with the written communication, specifically the genre of writing expository essays in an academic setting and will deal with the linguistic enterprise of examining the students' essay texts. The study will draw upon insights and research in the field of discourse analysis, specifically text analysis in the written mode (see Chapters Four and Five). This will be the basis for analyzing the essays and offering some recommendations for the improvement of the teaching/learning situation in the EFL Program at the Lebanese American University. It is hoped that other local and regional English medium universities may also benefit from the insights gained from the study.

V. Study of Genre

Although early discourse analysis studies offered valuable insights into text structure above the sentence level, there was a growing need for a more focused type of analysis on more specific forms of language as part of a shared context. Thus, genre studies which catered to this need have become a major focus of interest for much research, curriculum planning and teaching. Kusel (1992) explains this.

'Genre analysis grows from perceived shortcomings of earlier discourse studies, particularly through their lack of a socio-rhetorical dimension. It is founded on a view of language as a socical action and on the claim that to understand the nature of texts we need to study their use as instruments of communication.' (p.378)

Grabe and Kaplan (1996) also mention this dissatisfaction:

'In the 1990s, the concept of "genre" has become a significant issue in applied linguistics. Dissatisfied with liguistic and rhetorical definitions such as Biber's (1988) linguistic analysis or Kinneavy's (1971) rhetorical study, experts in genre analysis have defined genre as a linguistic realization of some social activity.' (p.126)

Although the term genre refers to both the spoken and written modes, it will be discussed in this section mainly in relation to the latter.

A. Development and Research in Genre

Genre is not a new concept. Kress (1982, 1994) and Grabe and Kaplan (1996) note how genre has had a history as far back as Aristotle (when it was associated with Aristotle's *Poetics*) reaching to the twentieth century of popular culture concerns in film and television and more recently to education, specifically to work in literacy (traditionally genre focused on narrative, descriptive, procedural and suasive types of discourse).

Traditional views of genre, however, are changing as scholars have established that there are also a range of academic and professional genres which are part of a 'discourse community' (Swales, 1990a; Bhatia, 1993, Halliday and Martin, 1993; Hyon, 1996). Due to the multi-disciplinary approaches to genre studies, it is not an easy concept to define. Linguists' definitions differ depending upon whether genre is approached from the sociological, psychological or linguistic aspect. There have been many attempts to define genre with different ranges of specificity. For example, Littlefair (1989) defines genre generally as '...things which have a good deal in common' (p.179). This definition has its advantage in that it encompasses a range of conceivable genres. However, such a definition is too loose for the present study. More appropriate definitions are given below:

> "By genre we mean the overall structuring to the text which
> characterizes different forms for communication."
> (Harrison and McEvedy in Cairney, 1992, p.23)

> "...a more or less standardized communicative event with a goal
> or set of goals mutually understood by the participants in that
> event and occuring within a functional rather than a social or
> personal setting." (Swales, 1990a, p.10)

Hyon (1996) classifies genre scholarship in three traditions: 1) English for Specific Purposes (ESP) studies which basically deal with the analysis of oral and written texts required of non-native speakers in academic and professional settings (Dudley-Evans and Swales, 1980, Brumfit, 1986, Christie, 1986; Dudley-Evans, 1990; Bhatia, 1993; Flowerdew, 1993); 2) New Rhetoric Studies which deal with a range of ethnographic studies of academic and professional situations in which the genre occurs rather than on the form itself (Coe, 1994a and Freedman and Medway, 1994a in Hyon, 1996) and 3) Australian Genre Theories which deal largely with genre studies following the tradition of systemic functional linguistics concerned with oral and written texts in their contexts with an emphasis on pre-university instruction (Halliday and Hasan, 1989; Cope and Kalantzis, 1993; Halliday and Martin, 1993; Hyon, 1996 for further references). The present study deals with the analysis of non-native student essays in an

academic context; hence it draws upon insights mainly from the ESP and Systemic approaches to genre. These are briefly reviewed below.

B. Writing Genre Frameworks

ESP approaches to genre studies stress the text in its functional context. Swales (1990a) developed a theoretical framework consisting of three key concepts: discourse community, genre, and language learning tasks which has the been the basis of much academic writing research. Work in this area deals with the structure of the differing texts required in both professional and academic settings. The essay in the LAU EFL Program is considered an important pre-requisite writing task towards the writing of more 'complex' academic based tasks such as the research paper. In this context, therefore, the essay takes on more significance.

Systemic approaches to genre studies observe genre as social processes (Kress, 1984, 1992; Martin, 1989, 1991 and Christie, 1991, 1992 in Hyon, 1996; Cope and Kalantzis, 1993; Halliday and Martin, 1993) which lead to generic products and which need to be taught. Halliday and Martin (1993) comment that 'Genre theory as developed in systemic functional linguistics had been particularly concerned with texts as staged goal-oriented social processes which integrate field [the social action], mode [the language] and tenor [the participants] choices in predictable ways' (1993, p.36). Basically it proposes that

'...the description of language as a resource for meaning rather than as a system of rules...concerned with texts, rather than sentences as the basic unit through which meaning is negotiated...grammar..as the realization of discourse [functional grammar] ...focuses on solidary relations between texts and social contexts rather than on texts as decontextualized structural entities in their own right....views language as a meaning-making system rather than a meaning-expressing one....It is oriented...to developing an elaborate model in which language, life, the universe and everything can be viewed in communicative (i.e. semiotic) terms.' (Halliday and Martin, 1993, pp.22-23)

Figure 2.1 indicates this relationship between language and the social context. It shows that for any meaningful communication it must be related to the situation of which it is part.

Figure 2.1 Language as the Realization of Social Context

Social context

Language

(Halliday and Martin, 1993, p.25)
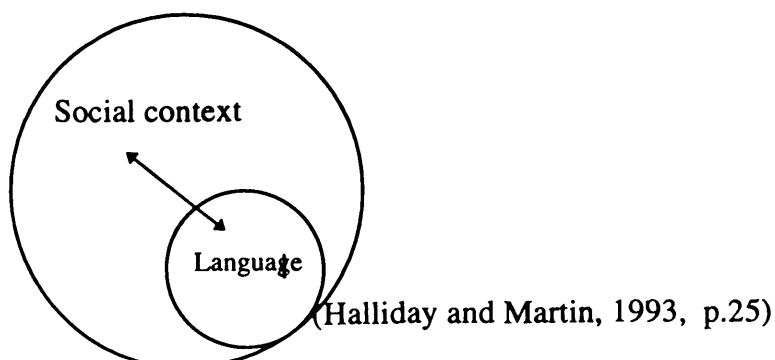
Figure 2.2 shows the relationships between language or text, (being the most concrete element), register, genre, and the social processes or ideology (the most abstract).

Figure 2.2 Language in Relation to its Connotative Semiotics: Ideology, Genre and Register
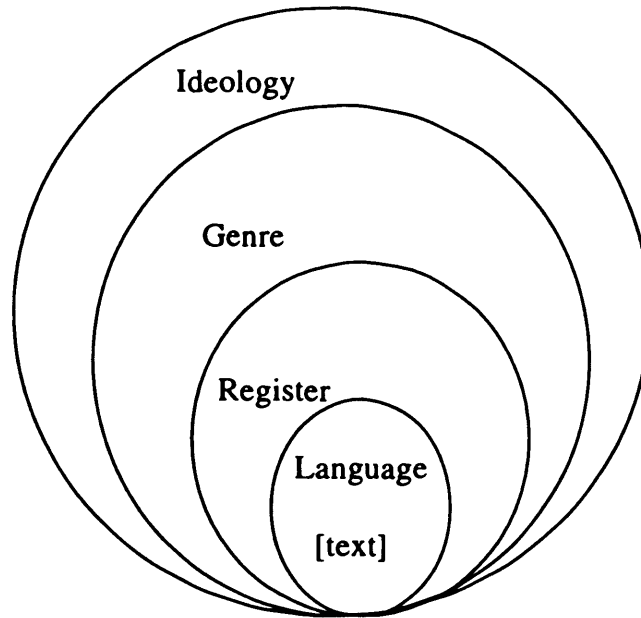
(Halliday and Martin, 1993, p.38)

In explaining an example, Halliday and Martin describe the differences between science texts and historical texts in each of the elements as shown in Figure 2.2 (ibid., p.40). They note that science texts are concerned with textual analysis, explanation and experiment of different sub-genres, while the historical texts are concerned with synthesis of reports, generalized recounts and embedded expositions. Both, however, deal with different sub-genres related to the social process or ideology of the culture and which as the authors express '...few students will learn to turn, with access strongly mediated by gender, race, class and age' (ibid., p.41). The genre concept thus for them becomes more abstract and more socially oriented. The main observation, however, from the above two figures, is that language (text) is influenced to certain degrees by the register, genre and the context which is expressed in the linguistic choices the writer makes.

Grabe and Kaplan (1996) referring to work done by Briggs and Bauman mention that this preoccupation with genre with a social dimension grew out of work that began with Bakhtin who views '..the linguistic dimensions of genres in social groups'. Texts although they have ordered, unified forms (for example, stories have a structure), are also "intertextual", that is,

'...texts are ongoing processes of discourse production and reception that are always tied to other texts or utterances in a culture' (ibid., p.126).

Berkenkotter and Hucken (1993 in Grabe and Kaplan, 1996) propose a model based on this 'dynamic view of genre' and although they apply it to the teaching of the composition or essay in L1, insights could be drawn for the L2 context. They argue for a '...form of situated cognition embedded in disciplinary activities...' and that '...writers acquire and strategically deploy genre knowledge as they participate in their field's or profession's knowledge producing activities...' not just to generalizations about the texts' 'form, substance, and context' (ibid., p.128).

Grabe and Kaplan (1996) point out that 'genre as a dynamic social activity provides a useful framework for describing the process involved in a student's learning of disciplinary genre knowledge' (p.129). Also, from theoretical frameworks of genre such as those expounded above, researchers have proposed instructional ones for implementation. One such framework (Callaghan and Rother, 1988 in Cope and Kalantzis, 1993) proposes a teaching and learning model of written texts for disadvantaged children in Australia in three phases: modeling, joint negotiation of text and independent construction of text from which insights could be drawn for the teaching/learning of the essay.

C. Text Genres in an Academic Setting

The study of genre in an academic setting is not new (Ventola, 1989, p.129). It has focused on a variety of writing tasks such as essays, research writing such as dissertations, articles, and reports (e.g. Swales, 1990a, 1990b; Dudley-Evans, 1980; Johns, 1993). Since the present research focuses on the essay, a brief account is given of 1) the essay genre and 2) the other different sub-types.

1. Essay Genres

A more specific field in the study of genre is the teaching of writing at tertiary levels where genre refers to the writing of compositions and the different rhetorical modes of narration, exposition (comparison-contrast, cause-effect, definition, description, classification and analysis) and argumentation. This is referred to by some linguists as text genre (Kress 1982, 1994; Littlefair, 1989, 1991; Johns, 1993). Research studies related to this concept of genre have been carried out especially in North America over the past twenty years (see Chapter Three). It is with this area of discourse analysis, known as rhetorical genre analysis with its related rhetorical structure theory (Andrews, 1989; Hatch, 1992) that this study is concerned.

In this context, Swales (1990a) and Connor (1996) point out that an area of relevant concern is contrastive rhetoric, the notion that the rhetorical structure of languages differs and thus students' poor performance in English may result from negative transfer and interference from the writing forms in their first language to English. Further, student writers may not be familiar with a particular genre or rhetorical structure in the target language, particularly with academic genres (see section VI in this chapter).

Some linguists have researched generic patterns in essay writing. Andrews (1989) and Hatch (1992) outline in detail the different text genres of narration, exposition and argumentation among the written modes used in academic writing. More specifically linguists (Hatch, 1992; Biber, 1988; 1992 and 1995 in Grabe and Kaplan, 1996, among others) have demonstrated that there are different organizational structures and surface linguistic features associated with text genres which need to be accounted for in research or the teaching/learning situation (see Chapters Four and Five). Grabe and Kaplan (1996) comment on the distinction between the genres of essay texts and the patterns of organization that are subsumed in them.

In this study, genre will generally refer to text type (expository essay) and specifically to one rhetorical pattern within this genre (cause and effect) in which the sample students' essays are organized. A review of relevant research in a few different types of essay genres is given below. A review of the linguistic features of texts, specifically the expository essay type under study here, is given in Chapters Four and Five.

2. Types of Essay Genres

Researchers in an attempt to find implications for the teaching/learning of writing have carried out comparative studies in the major text types of narration, exposition and argumentation. A more detailed account of studies in exposition is given in Chapter Four. Prince (1982 in Andrews, 1989) emphasizes the differences between the narrative and argumentative mode. He defines narratives as follows:

"Narrative is the representation of at least two real or fictive events
or situations in a time sequence neither of which presupposes or
entails the other."

Prince defines argument as a

'a connected series of statements or reasons intended
to establish a position; a process of reasoning.' (ibid., p.2)

The history of narration as storytelling and argument as persuasive, affective and rational is long and involved. (Narration here is distinguished from report writing as in the science

disciplines; the latter will be dealt with as a procedural rhetorical type and discussed under expository writing in Chapter Four). Linguists once viewed them as entirely separate and narrative was considered as an 'easier' more accessible rhetorical genre than exposition or argument. Narrative developmentally comes earlier in children's writing (Moffet, 1968; Berril, 1990; Donnelly, 1994). However, as these rhetorical genres were seen to be important in literacy development at the university level, researchers began to better understand their structure for the teaching/learning situation (Johnson, 1982; Smith, 1983; Connor and Lauer, 1985; Kopperschmidt, 1985; Purves, 1986; Francis, 1989; Middleton, 1990; Coirier, 1991; Kuhn, 1991; Kusel, 1992; Xuelan, and Kennedy, 1992; Johns, 1993; Al-Abed, 1994; Flowerdew, 1993, Swales, 1993; Andrews 1995). This led to the production of textbooks in which models of different types of genres were given students to provide them with samples of 'good' texts (Weissberg, 1984; Sorenson, 1988; Donald, 1989; McDonald, 1989; Mayberry and Golden, 1990; Tibbetts A. and Tibbetts C., 1991; Smagorinsky, 1992, Andrews, 1995; Charney and Carlson, 1995). However, Bernhardt (1986) is cautious of discussions on 'good' writing in the absolute sense since the writing purpose, task and context need to be taken into account (see Chapter Three).

Recently, some researchers have argued that text genres are not exclusive. In fact it is common for a mixture of organizational and linguistic features of different genres to be present in 'genre mixes' and 'genre blends' (Carter and McCarthy, 1988; Bhatia, 1993). For example, the features of the argumentative and narrative text modes have been found to often overlap (Kress, 1982, 1994; Andrews, 1989, 1990, 1995; Carter and McCarthy, 1988; Tannen, 1989; Britton, 1990; Grimshaw, 1990; Fox, 1990; Wilkinson, 1990; Bhatia, 1993). The recognition of such mixed types and combinations of genres considerably complicates the important questions of how many genres there are and which ones are of outstanding use. It also raises the difficulty of whether there are, in fact, 'pure' types of genres in authentic contexts although it is the pure types that are schematically presented to students. Writing handbooks for students rarely mention genre embeddings, blends or mixes but tend to rely exclusively on carefully chosen clear-cut examples of pure types.

There is, therefore, controversy over the relevance of teaching these exclusive text types to the students' subject matter field as well as to real life writing situations. Grabe (1987 in Grabe and Kaplan, 1996) carried out a pilot study on 40 L1 and L2 Freshman composition texts to find out how the students' texts '...compared with a variety of edited prose types from Biber's major corpus (p.48). Although there were no significant differences among the native

and non native speakers' texts and high and low rated texts, the freshman compositions were most similar to Humanities Academic Prose on three of the five dimensions (p.48) according to Biber's (1988) classification of text types indicating that the texts are following genre expectations (ibid., p.48). However, the student texts were '...unlike any of the professional genres,...' (ibid., p.49). Grabe and Kaplan (1996) concludes:

> 'Overall, the student essays did not match any of the professional genres along all five dimensions. Rather, freshman essays, at least as demonstrated in the final examinations in a writing course, appear to constitue a hybrid form of writing which combines salient features of a number of text genres. Composition writing may be a somewhat unique genre form, raising certain questions about its usefulness as a learning experience, at least as it is currently taught.' (ibid., p.49)

However, some research in English for Academic Purposes (EAP) into what English departments note other disciplines require as examination essay prompts (such as *define*, *discuss*, *compare* etc.) as well as writing needed across the curriculum, seems to show the need for developing EFL (or ESL) students' proficiency to write appropriately using the above mentioned organizational patterns (Johnson, 1982; Weisberg, 1984; Jordan, 1989). Swales (1990a, p.2) points out there are linguists and EAP teachers who believe that teaching composition writing with its assumed traditional rhetorical aspect trains students in thinking at a higher abstract level and that this transfers to the learning situation in other courses and disciplines (Spellmeyer, 1989). Some researchers who teach EAP courses are convinced that raising students' awareness of academic genres and rhetorical patterns will greatly benefit their writing (Samraj, 1989; Swales, 1990; Bhatia, 1993; Torrance et.al., 1993; Swales and Feak, 1994; Connor, 1996). As for the relevance of text genre (as it is understood in the composition class which focuses on the organizational types) to 'outside world' writing tasks, it is true that few real life writing tasks neatly divide texts into such categories, but it is hoped that students will have increased awareness of written forms and writing processes and will transfer their skills and be able to combine the composition development types when necessary.

D . Genre and Register

There is often confusion as to the distinction between register and genre. Halliday's definition of register may make the meaning of the two clearer. He describes register: 'It refers to the fact that the language we speak or write varies according to the type of situation ...'and attempts to '..uncover the general principles which govern this variation so that we can begin to understand what situational factors determine what linguistic features.' (Halliday,

1978, p.32 in Cairney, 1992, p.24). He further explains that to understand register in the context of situation is crucial. Basically register combines three components, the field (setting in which language occurs, the participants), the tenor, (relationship between participants) and the mode (channel of communication).

Halliday and Martin (1993) further show the relationship between register and genre: the former is more concrete; the latter is more abstract and relates more to the social setting of which it is part (see Figure 2.2 in this chapter). Grabe and Kaplan (1996, p.127) report the distinction between genre and register made by Swales (1990)

'...in that a genre sets structural conditions on the different parts of a text, such as its beginning, body, and ending, whereas registers set the overall correlation of linguistic features with appropriate contextual and situational features, usually on a continuum of stylistic formality-informality.'

Genre in this semiotic view represents the textual class that the written form is part of; register refers to the style of the text as expressed by the lexical, grammatical and semantic choices made according to the social context of the text (Littlefair, 1989; Eggins and Martin (1997). Eggins and Martin (1997) further point out that the lexical cohesion of a text is contingent upon the context which influences the text production. It is these register choices that students must learn to make.

E. Multi-disciplinary Approaches in Genre Studies

Genre studies have become multi-disciplinary (see Bhatia, 1993). Bhatia reports that the studies in linguistics have taken more specific approaches in relating certain features of language with certain types of writing or styles in writing. Work has concentrated mainly on linguistic descriptions of texts, register analysis, scientific English, stylistic analysis of varieties of English, rhetorical devices, and discourse organization (ibid., p. 17). In professional discourse, one study carried out by Francis (1989) was to find '... aspects of lexico-grammatical cohesion within theme which differ from one genre to another, and are patterns of thematic progression similarly genre-related?' (p.201). Francis analysed 7,500 words from similar sub-sections of two newspapers published on the same day in an attempt to find a relationship between theme and cohesive harmony according to various cohesive categories. She tentatively concluded there was an implication that 'it may also be posssible to relate cohesive harmony and genre'. Another recent study (Henry and Rosebury, 1996) analyzed the linguistic features of the registers of three brief touristic texts and found differences in the grammatical and lexical items. They conclude that there is a need in genre studies '...to focus on the language and linguistic patterns...' and advocate that more research be carried out in

examining such features for the teaching/learning situation. Research carried out on academic discourse has reached similar conclusions (Hyon, 1996) (see Chapters Four and Five).

Bhatia (1993) reports genre research in sociological studies in attempts to answer questions such as 'Why do members of what sociologists call 'secondary cultures' write the way they do?' (ibid., p. 19). Bhatia further reports that genre research in psycholinguistics 'reveals the cognitive structuring and tactical aspects which highlight the individual strategic choices made by the writer in order to execute his or her intention' (ibid., p.19).

F. The Genre Debate (Process vs Product)

In recent years, the genre approach to research and teaching with the emphasis on the written product rather than the process has been the focus of much criticism (Zamel, 1987, 1992; Flowerdew, 1993, among others). Proponents, however, argue that a genre-based approach to literacy does not exclude the processes involved in developing students' writing and should not be seen as a traditional method of teaching 'good' models (Cairney, 1992; Kress, 1991; Littlefair, 1992; Cope and Kalantzis, 1993). Cope and Kalantzis (1993) state that the approach is '...innovatory because a link is established between the school and the culture; it emphasizes linguistic differences, considers the teacher as the professional whose position is authoritative but not authoritarian, and it values flexibility over dictatorial syllabi and develops inductive reasoning based on experience (p.17-18). Cairney (1992) summarizes the criticisms against the process approach: there is too much emphasis on the process to the detriment of the product and a too heavy reliance on the learner's individual acquisition of the language with little teacher intervention (p. 23).

In this context, the dichotomy between product versus process seen by many researchers and teachers is disputed by some linguists. Grabe and Kaplan (1996) best sum up the relationship and how this controversy is better viewed:

> "In the past, too much discussion has been given to debates over process versus
> product. It should be clear from analogous interactive reading models that a
> study of the text product alone will not lead to the kinds of models of fluent
> writing necessary to support improvements in writing instruction. At the same
> time, theories of the writing process do not, of themselves, form a comprehensive
> intepretation of the written text." (p.37)

Thus, there is some agreement that both the process and the product are significant in the development of writing. The present study can be viewed in this context in that the 'product' is analyzed for linguistic features to draw insights about the students' writing 'process' to make recommendations for future writing processes of products.

G. Models of "Good Writing"

Many teachers believe that there is something called 'good' writing which their students must aspire to (see Jacobs, 1982). Textbooks abound with 'good' models that are used in the classroom (e.g. Sorenson, 1988; Donald, 1989, Tibbets, A and Tibbetts, C, 1991). The term 'good' as applied to written discourse, however, is broad and does not consider the complexity and range of styles in written discourse. Recent scholarship views the quality of writing as dependent upon the task, purpose, and audience (Bernhardt, 1986) relative to course objectives, teaching methods and evaluative criteria used. Benchmark compositions (also referred to as anchor papers) are commonly used in composition evaluation to help teachers set standards of the different proficiency levels of the written text (see Chapter Three).

This, however, does not necessarily undermine the use of 'models' as guides for students to improve their writing skills (see Hamdan, 1988, Charney and Carlson, 1995, among others). Although the process approach to writing (see Chapter Three) views models as inhibiting students' learning and creativity and misleading them to think that products are written at a first trial, some researchers still view the use of models as having a significant function in composition classrooms. Charney and Carlson (1995) define a model as

> "a text written by a specific writer in a specific situation that is
> subsequently reused to exemplify a genre that generalizes over
> writers in such situations." (p.90)

They emphasize that for a writer to be successful a knowledge of the genre in the disciplines is a prerequisite. To acquire this knowledge is often a challenging task for both professionals and students alike (ibid.,p.89). They cite a survey carried out by Stolarek (1994) in which 76% of the university-level composition instructors in teaching English as a first language were reported to have used models regularly in their own classes. How much more would EFL students therefore gain from models. Given the controversy on the effectiveness of models (Hillocks,1986; Werner, 1989; Smagorinsky,1992 quoted in Charney and Carlson, 1995) they point out that

> "Model texts are a rich resource that may prove useful to writers in
> different ways at different stages of their development. For student
> writers, models may be effective tools for learning the more enduring
> conventional forms or for understanding those that apply most broadly
> across the discipline." (p.116)

In this context, Charney and Carlson (1995) carried out a study on 95 psychology 201 undergraduates (mainly sophomores and juniors, L1 speakers of English) with two experimental groups and one control group on the effectiveness of writing models on students' writing of research texts. The findings indicated that students performed significantly better in both content and organization when models were given before writing and that giving students models of good, moderate and poor quality was just as helpful as providing three good models. The authors conclude that ..."the opportunity to compare good, moderate, and poor models might help students identify the effective aspects of the models and avoid the mistakes" (p.112).

In the present study, the holistically high and low rated texts, with their analyzed lexical cohesion patterns, could serve as 'models' in the writing instructional process (see Chapter Twelve).

H. Implications of Genre Research for the Teaching/Learning of the Essay

Although more research needs to be carried out in second language writing (Grabe and Kaplan, 1996, pp.21-23) and specifically in rhetorical genres (Connor, 1996, p.132; Hyon, 1996), some implications from genre studies can be seen in relation to the teaching/learning situation and, therefore, for the present study. These are given below:

1. Rhetorical modes (or genre text type) overlap, and some have been shown by text linguists to be subsumed under a major type in the same text. Overlaps, embeddings, blends and mixes of genres may lead us to question the heavy placement in some EFL composition syllabi of an emphasis on teaching the rhetorical modes in a hierarchy of difficulty focusing on students producing texts exclusively in one rhetorical mode at a time (This is in fact the situation in many EFL Programs in Lebanon and abroad). Should syllabi take into account more integrated genre text types and the topics which determine these? Whatever is decided, it is believed that students could still apply what they have learned to university and real life writing assignments.

2. Genre studies in composition significantly indicate that the genre text type may well influence the frequency and variety of local and global linguistic features in text which should be accounted for in research. In other words, the type of genre selected for the study may influence the results of any analysis as each genre probably draws on different structures and lexis. The implication for research is that generalizations based on findings must be genre specific to be valid. The implication for classroom instruction is that if evaluation of texts is to be reliable and valid, any generalizations about students' proficiency levels should be viewed with caution if they stem from only one or two writing tasks.

3. A further question teachers and curriculum planners should address is how useful are genre text types as models in the teaching of writing? Although some practitioners view the use of models in a genre approach as being over-prescriptive and too formal, models have been found to be useful when combined with process-oriented writing techniques.

Thus studies in discourse which aim to be more relevant to the students' situations and the text types they write are increasingly genre specific (see Chapter Three). It is in this context that the present study lies. However, as other work in discourse analysis has shown (Connor, 1996), the production of texts may also differ in organization and/or lexico-grammatical features and show varying degrees of proficiency depending upon the native culture and language of the writer(s). This use of contrastive rhetoric is one likely cause of non-native speakers' problems writing in English. This issue will be discussed in the following section.

VI. Contrastive Analysis Studies

Researchers and teachers often raise questions as to the causes for students' problems in written texts. Studies in contrastive analysis from the 1950's well into the 1980's examined the structure, pronunciation and lexical systems of languages and found differences which are held to influence or interfere with students' language in L2 (Lado, 1957; Kaplan, 1996; see James, 1980; Pere-Woodley, 1990; Grabe and Kaplan, 1996). However, in the 1970's, this view was challenged as second language acquisition processes were studied; second language learning was seen to be similar to first language learning in that the '...language learners are intelligent beings creating rules and systems based on the rule systems of language they hear and use' (Grabe and Kaplan, 1996, p.12). This gave rise to models of 'interlanguage' (Corder, 1967; Selinker, 1972; Krashen, 1977 in Grabe and Kaplan, 1996, p.12) suggesting that text structures in L1 may not necessarily *determine* the structures used in a writer's L2 text, though more recent studies show that they may be one factor (among others) which *influence* the L2 text (Connor and Kaplan, 1987; Odlin, 1989; Pere-Woodley, 1990; James, 1990; Leki, 1991; Jaszozolt, 1995; Connor, 1996).

The elements of this field are outlined below in relation to written discourse under the headings of *error analysis, contrastive rhetoric, transfer, contrastive text linguistics.*

A. Error Analysis

Numerous studies in *error analysis* look at non-native speakers' texts to detect those structures that do not conform with the target language under study and to explain retrospectively possible causes for errors (see James, 1980; Connor and Kaplan, 1987; Kharma, 1989; Pere-Woodley, 1990, Connor, 1996; Grabe and Kaplan, 1996). Since error

analysis can be viewed as predictive of error, some reports detail structural and lexical features that cause problems for students and there are a few specifically for Arab non-native speakers (e.g. Kharma and Hajjaj, 1989; Al-Hakim, 1984; Al-Chalabi, 1984; Swales, 1984; Smith and Swan, 1986).

This pedagogic method to help students avoid errors in their writing has also been challenged as the field becomes more tolerant of error and as new insights into causes of error are obtained (Shaughnessy, 1977; Ghadessy, 1980; Abdul Manan, 1989; Bhatt, 1989; Schnadter, 1991). Shaughnessy (1977) in her seminal work refers to the errors made by non-native students not as an inadequacy but as part of their learning process. As work in pragmatic linguistics developed, error began to be viewed as 'normal' and some were referred to as mistakes, slips etc. especially since even native speakers at an advanced level were found to make 'errors' (Davies, 1975). Though this smudges Corder's (1973) distinction between *errors* as being systematic and non-accidental, influenced by the learner's mother tongue or other language, and *mistakes* as being lapses from inattention, etc., learners can often self-correct mistakes but fail to spot errors. Also, not all errors students make in writing were found to be due to negative transfer from L1 to L2 but rather some were found to be due to poor developmental writing learning in L2, or even to poor teaching (Bartholomae, 1980; Sridhar, 1980; Leki ,1991; James, 1980; 1990; Pere-Woodley, 1990). Errors were also found to be due to overgeneralizing from the target language - 'ignorance of 'rules' of structures and restrictions; incomplete application of the 'rules' and building false restrictions' (James, 1980, p.173).

Studies done on Arabic non-native speakers of English have also shown that student error cannot be totally accounted for by contrastive analysis descriptions and transfer (Sa'Addedin, 1989, 1991, Connor, 1996). Grabe and Kaplan (1996) further note that contrastive studies are '...beginning to consider the variation in American, British, and other "native" Englishes as well as nonnative varieties of English as norms'. They also report that the number of native speakers of Englishes is around 350 million, but as many as 700 to 750 million people use English as a national, second or foreign language, or as a language for commerce, industry, science, or other purposes. Also, some researchers are beginning to view error in relation to a 'discourse community' in Swalesean terms (Swales, 1990). This all makes the study of error analysis in the 1990's very complex with various dimensions.

B. Contrastive Rhetoric

The area of cross-cultural rhetoric studies has spawned a vast literature of its own, a somewhat confusing one. On the one hand, linguists claim to have evidence of textual patterns in other languages not found in English writing; on the other hand, there is disagreement over whether these patterns are transferred and cause interference when the learner writes in English. The seminal work by Kaplan (1966), in which he posited a typology for textual progression with different types associated with different culture has since been challenged by other studies. Kaplan suggested that English texts were characteristically linear and hierarchical, while Semitic (Hebrew and Arabic) texts were characterised by parallelism; Oriental texts had indirection and were cyclical, and Russian and Romance texts had a preference for digressions. Transfer of these patterns from one language family to another was only seen as negative. Figure 2.3 presents these patterns.

Figure 2.3 Kaplan's Text Typology (Kaplan, 1966, p.15)

| English | Semitic | Oriental | Romance | Russian |
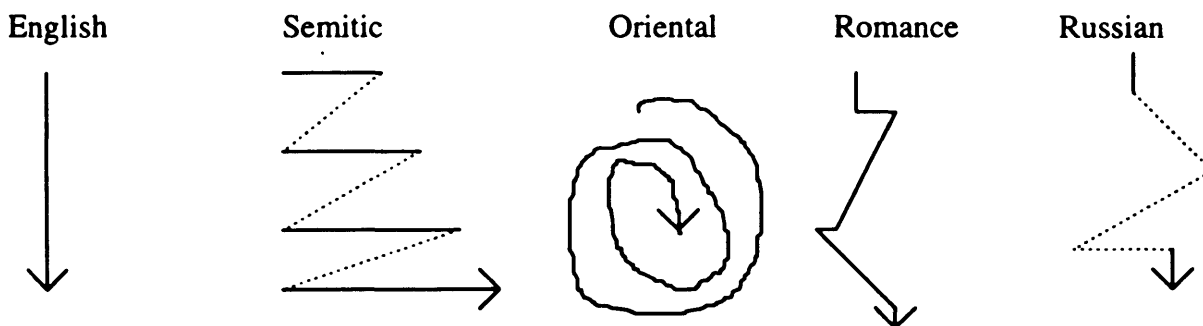
Certainly some evidence seems to support differences in textual structure between L1 and L2 (Onaka, 1984; Hinds, 1987; Ostler, 1987; Connor, 1987; Purves, 1988). Even within the same language family differences have been suggested: German academic texts seem to allow a greater amount of parenthetical information and freedom to digress than English writing of the same kind, and there is some evidence that English writers tend to use topic sentences at the beginning of paragaraphs where German writers might prefer a bridging sentence between paragraphs (Clyne, 1987).

However, Kaplan's (1966) early view has been challenged (James, 1990; Leki, 1991; Taylor and Tingguang, 1991; Clyne, 1987; Connor and Kaplan, 1987; Kaplan, 1987, among others). Basically, the criticisms noted that Kaplan's model had been based on texts all written in English and not in the languages in question and that the description of the rhetorical organization was too prescriptive and general. Some research into academic expository and argumentative texts has found that both native and non-native speakers of English have similar

developmental patterns at both the sentence and discourse levels (Stalker and Stalker, 1989) and that audience awareness is not culturally determined (Connor, 1987a; Connor and McGragg, 1987). This implies that inadequacies revealed in their written texts may be attributed to a need for instruction

As far as Arabic is concerned, McCarthy (1991) illustrates the controversy related to Kaplan's (1966) theory by a few studies. Although Kaplan had spoken of parallelism for Arabic, Bar-Lev, (1986 in McCarthy, 1991, p.167) 'finds more of a tendency to 'fluidity' in Arabic text (i.e. non-hierarchical progression with a preference for connection with *and, but,* and *so*), and claims that parallelism is a property of Chinese and Vietnamese. Aziz (1988 in McCarthy, 1991, p.165), however, finds that Arabic text has a preference for the theme-repetition pattern...making it different from English and indeed suggesting a sort of parallelism'. Koch, (1983) also found in examining Arabic rhetoric that 'repetition is the key to linguistic cohesion of the texts and to their rhetorical effectiveness." (ibid.,p.47). McCarthy points out this conflicting evidence is confusing 'with regard to whether there is cross-cultural interference for learners' (p.165). McCarthy further comments, 'What we find frequently in examining Middle Eastern, Oriental and other learner data in English are the same problems noted in European data: that bad discourse organisation often accompanies poor lexico-grammatical competence' (p.165). He concludes by stating that it is really left up to the teachers' expertise to decide whether the interference from the students' first or other language is a problem (ibid., p.165).

Grabe and Kaplan (1996) report that contrastive rhetoric studies have moved from examining only products to studying processes in a variety of writing situations that consider other influencing factors such as cognitive and sociocultural aspects of writing (Kachru, 1984 in Grabe and Kaplan, 1996). They also note this in the linguistic analysis of text products where a variety of discourse analysis and text linguistic research focus on analyses of the whole text as a dynamic entity (Enkvist,1987; Brown and Yule, 1986; Connor, 1987b, Purves, 1988 in Grabe and Kaplan, 1996).

This view of contrastive rhetoric stresses more social-cultural dimensions. It is also seen in classroom talk. This is based on western culture of oral interaction characterized by teacher initiation, the student replying and then the teacher evaluating. Related to colloborative writing classes with peer work and teacher conferencing, some researchers have also found cultural differences in these activities which may affect performance (Hull et.al., 1991; Allaei

and Connor, 1990; Carson and Nelson, 1994; Goldstein and Conrad, 1990 in Grabe and Kaplan, 1996, pp. 24-25). Some of this work complements that in written discourse.

C. Transfer

Transfer refers mainly to the carry over of linguistic items from L1 to L2 which in the past were thought to negatively affect the learning in the target language. Recent research has found that transfer could also be positive. One comprehensive work done on language transfer which challenges previous views is Odlin's (1989) in which the controversy of transfer from L1 to L2 in relation to lexical items is specifically relevant to the present study. He notes that a knowledge of French vocabulary may both help and hinder the learner of English as a second or foreign language due to the similarity or the differences of the items. He gives the example of similar cognates in French and English: *justifier* and *justify* but mentions the pitfall in two 'false friends' such as the French *prevenir* and the English *prevent'* (ibid., p.79).

To Odlin, transfer 'is not simply interference' (ibid., p.26). It could be negative or positive. He defines transfer as 'the influence resulting from similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired' (ibid., p.27). At the same time, Odlin sees both native and non-native speakers facing similar problems in learning a language and illustrates this with examples in which spelling is problematic to both. (ibid., p.127).

Odlin also notes that there may be a deterministic relation between language and thought related to the Whorfian Hypothesis (1956 in Odlin, 1989). He illustrates this by showing that French speakers may have different mental associations as they view each noun as either masculine or feminine marked obligatorily in written discourse. This structural characteristic found in many languages, says Odlin, might 'influence cognition' (ibid., pp.72-73). He concludes that 'there is little question that lexical similarities in two languages can greatly influence comprehension and production in a seond language...What is less clear is the importance of linguistic relativism...although it might be easier to express a particular thought in one language..'(ibid., p.83).

D. Contrastive Text Linguistics

A recent area of inquiry in contrastive rhetoric has been contrastive text linguistics. It is usually '...used synonymously with text analysis and written analysis...' (Grabe and Kaplan, 1996, p.19). Some aspects of this inquiry analyze texts for differences in local linguistic features (e.g. cohesive devices of anaphora) or global textual features between languages (Cornish, 1986, Hatim, 1987 in Pere-Woodley, 1990, Connor, 1996). While such studies are

sometimes revealing about textual descriptions in different languages, different realisations of the same genre (e.g. medical research articles) may not show any significant results as writers tend to conform to the conventions of their community. Regent (1985 in Pere-Woodley, 1990) notes that 'there is now a tendency on the part of a certain number of [French] writers to follow the English model'of 'taking a more argumentative line than that in the French texts, which seem more data-oriented.' However, much work is being carried out in text analysis not necessarily for contrastive purposes but to obtain insights into the products and processes of writers (see Chapters Four and Five).

An even more recent area of contrastive text linguistics is that of *contrastive lexicography* (e.g. Odlin, 1989) of which Nowaowski (1980 in Jaszozolt, 1995) gives the following definition:

> "By lexical contrastive studies we mean ... the type of studies in which
> LEXICONS of two (or more) languages, or two and more varieties of one
> language (i.e. subsets of the L-lexicon) are systematically compared and
> lexical differences and similarities are systematically and exhaustively
> characterised." (p.4)

There is growing emphasis on research in lexical items at the discourse level (Carter and McCarthy, 1988; Hoey, 1991a) beyond structural contrastive studies. Cook (1988 in Jaszozolt, 1995) comments on this given below:

> "The lexicon is not a separate issue, a list of words and meanings; it plays
> a dynamic and necessary part in the syntax. ... Consequently many
> aspects of language that earlier models dealt with as 'syntax' are now
> handled as idiosyncrasies of lexical items; ..." (p.6)

Some research into the use of lexical items by Arabic speakers' written English texts shows that there is a need for more varied vocabulary and skill in use of derivational forms (see Chapter Five).

VII. Implications

This chapter has outlined two important concepts in the study of discourse analysis, genre study and contrastive analysis from which insights were drawn for the present study. The implication of the above to the present research is that there is still something to learn from contrastive rhetoric and lexicography which teachers should be aware of. L1 writing conventions may not necessarily influence or be the cause of the students' problems in writing in English, but an awareness of the students' background and skills may help in more appropriate teaching/learning strategies. Specifically, there were significant insights as regards both positive and negative transfer of lexical items from French to the compositions since most

of the students in the present study use French as L2 and English as L3. Some of the students when interviewed (see Chapter Eleven) commented that French and Arabic interfered with their writing. Others said these languages did not - a disagreement which parallels the controversy in the field and suggests that perhaps it is more a matter of instruction and learning. The students' perception of L1 to L2 transfer, however, may not necessarily reflect the situation. It is not uncommon to find that lay persons' or folk perception is quite different from that which is revealed by detailed linguistic analysis.

The main observation that can be made from all the above is that there is a need to carry out writing research in specific genres and more significantly at the discourse level. Also, although teachers need to be aware of the influencing L1 factors on L2, the importance of students acquiring relevant learning strategies is crucial to the development of their writing proficiency. Since the approach of the present study is one of discourse analysis as related to the teaching/learning situation, Chapter Three reviews some influencing factors of written discourse on pedagogical developments. Chapters Four and Five give a more focused examination of the studies carried out on written discourse, specifically those of text analysis.

CHAPTER THREE

WRITTEN DISCOURSE

"No man can reveal to you aught but that which already lies
half asleep in the dawning of your knowledge."
                                    Gibran, The Prophet

Many linguists and researchers have attempted to identify the construct of writing in order to gain insights to improve the teaching/learning situation. This has taken on a multi-disciplinary approach in the fields of social, psychological and textual aspects of linguistics. In this chapter, the aim will be to discuss some of this work in relation to 1) the oral and written modes: changes in perspectives in research and the different features between the modes 2) major theories of writing, 3) the influence of these theories and characteristics of writing on EFL composition instruction, 4) assessing student compositions and 5) the pedagogical implications to the present study. It is argued that writing (including student academic writing of compositions) is an independent field of inquiry in applied linguistics and that students need to learn to write in academic settings (Grabe and Kaplan, 1996; Schleppegrell, 1996).

I. Speech and Writing

The purpose of this section is to show features of the spoken and written modes and to argue that although both employ complex structures that may vary within mode and overlap between them, an awareness of common structures of the written mode is significant in the teaching/learning of texts. Also, this section will argue that students' texts (like any extended written communication) need to be cohesive and coherent (see Chapter Five) for the listener and reader respectively and that the teacher's role is crucial in making students aware of textual features that they need to learn to use towards this end. The speech component has been included in the discussion as it may provide further insights into the nature of the written mode.

Two aspects of the characteristics of spoken and written modes will be discussed: 1) the development of writing as '...an appropriate domain for applied linguistic inquiry...' (Grabe and Kaplan, 1996, p.17) and 2) the basic 'differences' between spoken and written modes

A. Changes in Perspectives on Research into Writing

Many linguists have commented on the primacy of early emphasis on the oral mode over the written in the research and the importance given to it in both social and academic contexts

(Stubbs, 1980; Kroll, 1981; Kress, 1982; Biber, 1988; Halliday, 1989; Donnelly,1994; Grabe and Kaplan, 1996, among others). Stubbs (1980, pp.25-29) summarizes this early preoccupation with the oral mode as mainly due to the historical perception of it being first for societies and developmentally first for the indivdual. The focus of much research was on the 'spoken language alone [as]... the legitimate object of study of linguistics' and on the written mode as 'a pale reflection of the spoken' (ibid., p. 24).

However, in the latter half of the twentieth century due to increase in literacy rates and the growing importance of writing in both academic and professional contexts, researchers began to focus more on the written mode (see Stubbs, 1980; Smith, 1988; Donnelly, 1994; Hudson, 1996; Grabe and Kaplan, 1996). With the developments in linguistics, specifically in applications of pragmatics (Austin, 1962; Searle, 1969 in Donnelly, 1994) and work on speech acts and interpersonal factors outside the text such as people's attitudes, situations, intentions, or audience, which affect choice of linguistic features and use of text types, speech and writing were seen as complementary. Stubbs (1980) comments on this change of perspective towards writing:

> "...writing, having once started as a durable record of speech, can take
> many forms, bear many relations to speech, and finally can take wing as
> an independent factor in (language) structure and history." (p.42)

An argument, however, that could be given for a recent emphasis on speech research, is that writing may be becoming 'obsolete' as technology and the use of electronic media improves. There are many in the professional business world as well as in academic contexts who believe that while writing may be important, it is not all that necessary. Certainly, many arts, engineering, business and computer students continue to remind their teachers of this. However, this view loses sight of the contributions of writing to one's cognitive development. Work done by psychologists and cognitive linguists (e.g. van Dijk and Kintsch, 1983; Britton and Black, 1985b; Hillocks, 1986; Bereiter and Scardamalia, 1987; Flower et al., 1990; Flower, 1994; Kellogg, 1994; Smargorinsky, 1994 in Grabe and Kaplan, 1996) emphasizes such skills as planning, shaping, organizing and revising that are necessary to learning and text recall, task intervention, reader interpretations and so forth which are as Perera (1988, pp.202-3) points out complex and difficult areas for students.

To conclude this section, it would seem that the primacy of one mode over the other has come to mean a matter of which mode is needed in a particular situation for a specific purpose, audience and task and that researching the written mode is a valid independent field

of inquiry. The following section outlines some of the major differences between the oral and written mode related to the present research.

B. Differences between Speech and Writing

The view that divides the oral and written mode more-or-less into a dichotomy has been challenged. The counter argument is that the separation into two distinct modes is unrealistic and, in fact, the two modes vary and overlap in features accorded to either depending upon the context, purpose, task and audience (Peacock, 1986; Smith, 1988; Cook, 1989; Halliday, 1989; McCarthy, 1991, Lewis, 1993, Donnelly, 1994).

McCarthy (1991, p. 149) argues that 'Both spoken and written discourses are dependent on their immediate contexts to a greater or lesser degree. The idea that writing is in some way 'freestanding', whereas speech is more closely tied to its context, has come under attack as an oversimplification by discourse analysts (e.g. Tannen, 1982)'.

Lewis (1993) also points out '...the written/spoken distinction is a spectrum rather than a dichotomy. Very formal speech, notably lectures or presentations, exhibits characteristics of both informal spoken language and lexically dense written language (p.101). Biber (1988) also concludes that there is an overlap between the characteristics of speech and writing :

> 'This analysis shows that there is no single, absolute diffference between speech and
> writing in English; rather there are several dimensions of variation, and particular types
> of speech and writing are more less similar with respect to each dimension' (p.199).

Biber (1988) developed a multidimensional model of textual variation that compared relations among 23 different genres of spoken and written texts. (Grabe, 1996, p.16). He found no dimension which clearly distinguished all types of written texts from all types of spoken texts. Thus, the traditional dichotomy between oral and written texts does not appear to be represented by any single dimension of textual variation in a strict interpretation of Biber's results. 'A major conclusion to be drawn is that the spoken-written continuum does not exist in any strict sense as a single dimension of textual comparison.' (Grabe and Kaplan, 1996, p.16-17). Halliday (1989) further argues:

> "Although the special features of each variety clearly derive in the
> first place from the medium and the functions it serves, once it has
> evolved, the variety becomes independent of the medium and can be
> transposed into the other form. We can all learn to talk in written
> language, and even (though this is harder) to compose conversation."(p. 97)

The dichotomy between the oral and written mode is, then, not a hard and fast one, but linguists agree that there are typical features which offer insights for the teaching/learning

situation (Akinnaso, 1982; Kress, 1982, 1994; Biber, 1988; Cook, 1989; Halliday, 1989; Young, 1989; Smith-Lock, 1991) summarized in Figure 3.1 according to Cortazzi's (1992) model. The model shows that the two modes can be considered differing in their realization on six dimensions: encoding, decoding, context, structure, planning, and function.

Figure 3.1 Dimensions of Differences in Oral and Written Modes

```
                        ┌──────────────┐
                        │  LANGUAGE    │
                        └──────────────┘
                     /      Encoding        \
                    /       Decoding         \
                   /        Context           \
                  /         Structure          \
                 /          Planning            \
                /           Function             \
        ┌─────────┐                        ┌──────────┐
        │ Speech  │< ....................>│ Writing  │
        └─────────┘                        └──────────┘
```

(Cortazzi, 1992)
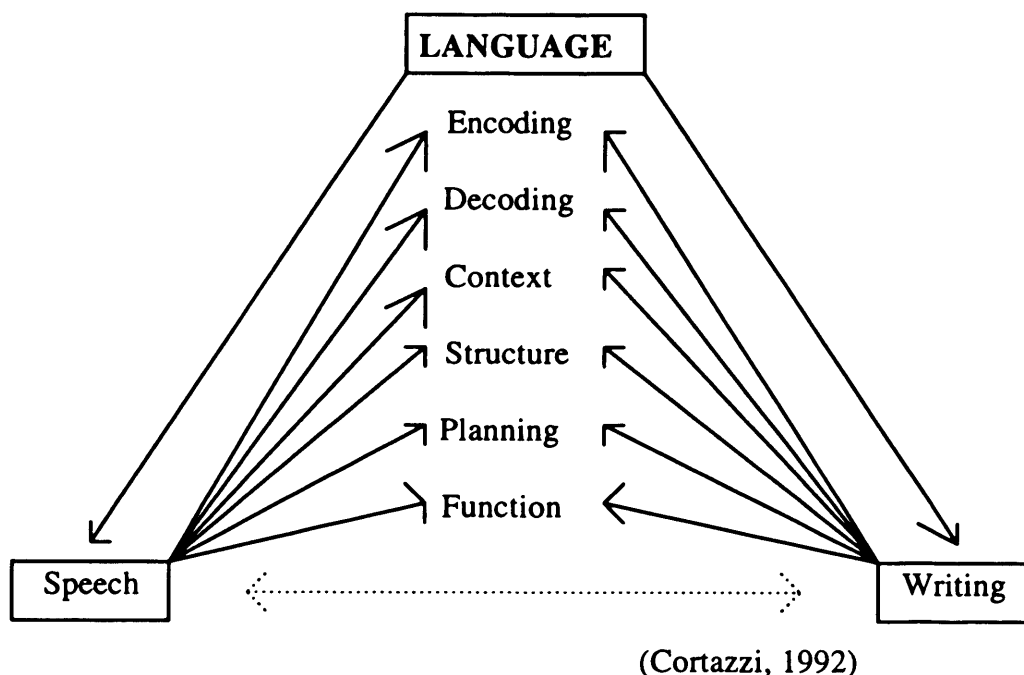
The broken arrow indicates possible variations and overlaps in the oral and written modes along a continuum, e.g. academic lectures can take on written characteristics. In summary, the oral and written modes encode (produce) and decode (receive) information according to sounds and scripts mainly in either face to face communication or solitary or collaborative work respectively. Either mode may emphasize different textual resources and require different types of planning of the discourse for different purposes. Linguists have noted the differences along these dimensions as well as the variations and overlaps in different contexts Since the present research deals mainly with linguistic features in text analysis, the structural differentiations between the oral and written modes will be the focus of the remainder of this section. The major structural differences are summarized in Cortazzi's (1992) model in Figure 3.2 (see Akinnaso, 1982, pp. 97-125 for a fuller account).

First, the overall structure of speech is phonologically expressed through intonation and fillers, while in writing it is expressed through syntax and textual organization (Perera, 1988; Halliday, 1989). This is partly illustrated by Kress' (1982) exemplification of the structural differences in the two modes in Texts 1 and 2 below after which some differences are discussed.

Figure 3.2 Structural Differences between Oral and Written Modes

Speech		Writing
	Structure	
* redundancy		* density
* ellipsis	**form**	* avoid repetition
* flexible		* fixed forms
* dynamic		* standard English
	grammar	
* accents		* wider vocabulary
* dialects		
* chaining		* hierarchical
coordination		subordination
		embedding
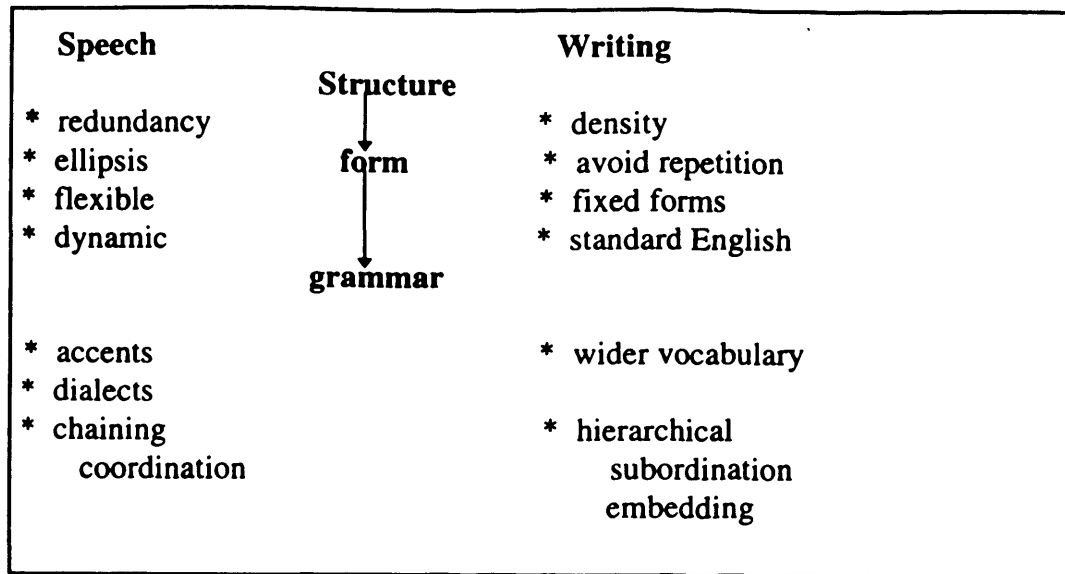
(Cortazzi, 1992)

Text 1 - Spoken

"Now of course an exhortation to be open in the way we look at things
is easier said than done because we have all finished I suppose much of
our learning with most. I think all of us have finished probably all of
our significant learning and learning has of course positive aspects it has
the positive aspect of enabling us to live in the culture that we are born into
but learning also has um I feel quite negative aspects um the positive ones
as I say are clear enough they enable us to function In our world the
negative ones have also been pointed to um frequently enough I'll just
er perhaps talk about them very briefly in relation to language um the
negative aspects of learning I think are concerned with a kind of reduction
that goes on with a kind limiting that goes on whe we learn cultural things.
We come to learn things and once we have learned them they seem to be
the only way to do things um the way we say things seems to be the natural
way to say things and so forth." (ibid., p.29)

Text 2 - Written

"Now of course, an exhortation to be open in the way we look at things
is easier said than done because we have all finished most of significant
learning. Learning has positive aspects, enabling us to live in the culture
that we are born into; but learning also has quite negative aspects. These
are concerned with a kind of reduction, a kind of limiting that goes on when
we learn cultural things. We come to learn things and once we have learned
them they seem to be the only way to do a thing; the way we say things
seems to be the natural way to say things and so forth." (ibid., p.30)

What is a most obvious difference between the two typical text types above is the type of repetition. In oral texts, the repetition of words and phrases is common and a necessary form in speech interaction as it gives common ground and allows both speaker and hearer extra processing time (Kress, 1982, Tannen, 1989). Although there are repetitions in text 2, they are more 'lexical' than whole chunks of phrases put side by side as in text 1. Also, in text 1 the fillers like 'er' and 'um' show speaker hesitation which is natural in speech but is not seen, as a product, in writing. Another very prevalent feature in oral texts is ellipsis where certain syntactic structures are omitted without necessarily distorting the meaning. Text 1, for example, shows the omission of 'is' in 'King the big one', and 'Thunder the small one.' Written texts also make use of ellipsis, but the feature is much more common in oral texts. Speech tends to develop a topic by restating, elaborating, articulating, all in a sequence of chains of clauses mainly in a coordinating fashion. Writing is typically more explicit, of a more hierarchical structure, lexically denser, and dependent on cohesive and continuous development of a topic, as text 2 indicates (Akinnaso, 1982; Kress, 1982, 1994).). Although there is also some debate among linguists today as to what 'standard' English is, especially in international contexts (Stubbs, 1980; Kachru, 1992; Donnelly, 1994), it must adhere to certain linguistic conventions accepted by the discourse community. This is not to say that oral discourse is simpler, as work in conversation analysis and pragmatics testifies (Wardhaugh, 1985; Nofsinger, 1991; Stenstrom, 1994; Tsui, 1994).

Studies in text linguistics and genre have argued for different micro-structures over both the modes (Biber, 1988, Kress, 1994). Fox (1993) found different anaphoric constructions (cohesive items that point backward to an earlier reference) between the oral and written text modes and further differences depending upon the text type in each mode. Smith-Lock (1991) found that children make certain morphological errors in writing they do not make in speech. Lazaraton (1992) found that the oral mode has a higher frequency of the conjunction *and* when compared to narrative written texts and Zughol (1985) attributed the high frequency of *and* in texts written in English by speakers of Arabic to the influence of the oral mode. Schleppegrell's (1996) study has also shown the influence of the oral mode in ESL academic writing in the US in the inappropriate uses of *because* to introduce clauses and to provide links between parts of the discourse. She concludes that ESL writers need to be aware of the lexical and grammatical resources of academic registers (ibid., pp. 280-281).

All this makes the encoding, decoding, planning and function of writing (see Figure 3.2) different from that of speech (Kinneavy, 1971; Britton, 1975; Cooper and Odell, 1977; Stubbs, 1980; Applebee, 1981; Graves, 1983; Perera, 1988) As Halliday (1989) expresses it:

"They are both forms of language: it is the same linguistic system underlying both. But they exploit different features of the system, gain their power in different ways." (p.100)

This discussion on the change in perspectives in writing research and the comparison between the oral and written mode shows the increasing importance of research in the written mode with a focus on the textual features that differentiate the writing and oral modes. The implication of these findings is significant as they relate to the students' acquisition of the textual features in the development of their writing proficiency. The following section outlines a few of the major theories of L1 writing that have been influential on the teaching of L2 writing.

II. Theories of Writing

The importance of theories in providing insights into the nature of texts and the processes of writing is noted by researchers and linguists (Vygotsky, 1962; Zebroski, 1986; Crusius, 1989; Reid, 1993, among others). The major theoretical models as expounded by Moffet (1968), Kinneavy (1980), and Britton (1975) are all 'rooted in the basic semiotic structure of the so-called communication triangle' (Kinneavy, 1983, p.123) shown in Figure 3.3 and indicates the three major aspects of writing: the writer (encoder), the reader (decoder), the text and the context (reality).

Figure 3.3 Model of a Theory of Writing

reality
(the topic of the text)
(Freedman, 1983, p.4)
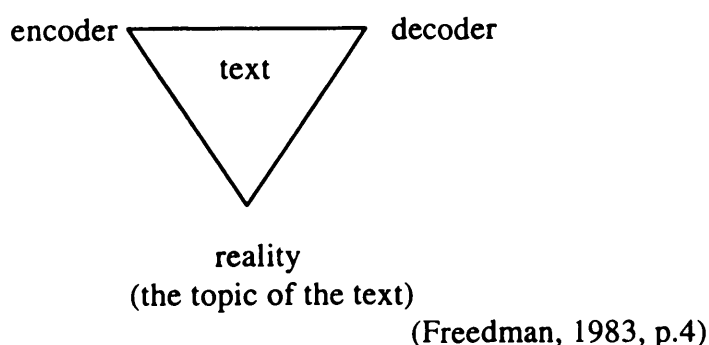
The models encompass two schools of thought on the process of writing. These are: 1) the expressivists (Moffet, 1968) and 2) the cognitivists (Britton, 1975; D'Angelo, 1975; Kinneavy,1980-first published 1971). Crusius (1989, p.5) argues that Moffet's theory is more developmental and process-oriented, Kinneavy's is more product-oriented and Britton's is a

synthesis of the two. The theories are, therefore, significant in that they provide a context into which the teaching of the essay in an academic context can be viewed.

A. The Expressive School

Composition studies in the 1960's and 70's were based on the work done by the expressive school of thought that saw traditional methods of rhetoric and their reliance on grammatical and literary studies as inadequate for the teaching of the composition. Basically, this group of researchers and teachers (Coles, 1974, 1978; Elbow, 1973; Macrorie, 1970, 1976; Moffet, 1968 in Reid, 1993) argue for '... expressive, self actualizing writing in which students "discovered" ideas and themselves through freewriting and brainstorming' (Reid, 1993, p.4). James Moffet's (1968) model of a theory of writing was the basis of much of the above work in American elementary and secondary schools. As Figure 3.4 indicates, it is an extension of the 'communication triangle' in Figure 3.3 and focuses on the writer, audience and the different types of texts.

Figure 3.4 Moffet's Model of a Theory of Writing

IT

Fictive   Non-Fictive

Essay

Poetry Fiction   Exposition

Plays   Narration   Kinds

Drama

Orders

I   YOU

Interior   Conversation   Correspondence   Public   Public

dialogue   Narrative   generalization,
Inference

(in Kinneavy, 1983, p.124)
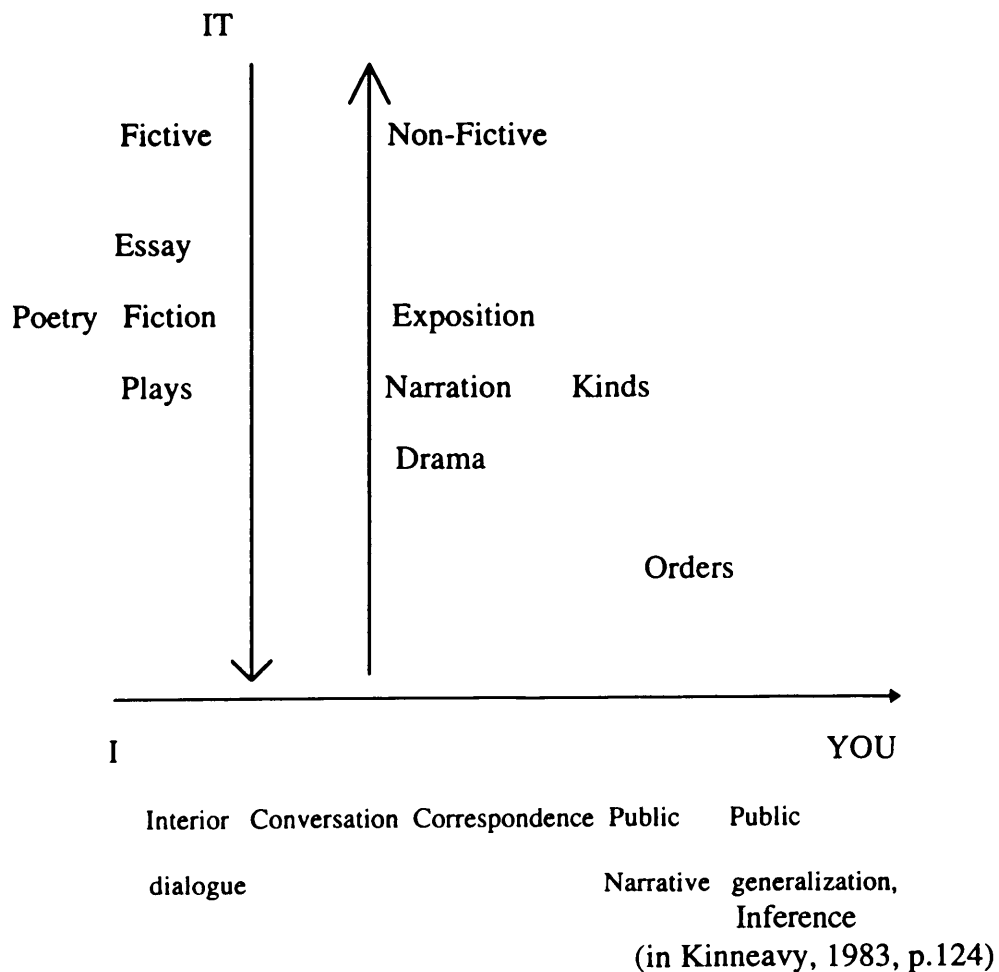
The model has two dimensions with the I as the focus between the You and the IT representing the triangle model mentioned above and can be further elaborated as follows:

1. The I - You dimension is the relation between the writer and the audience the latter being on a scale of varying degrees of closeness.
2. The I-It dimension is the relation between the writer and the subject matter of 'fictive' and 'non-fictive' texts representing time, with drama referring to actions happening at the moment, narrative focussing on 'what happened' and exposition on 'what happens'.

B. The Cognitive School

Along with the expressive view of writing, some linguists argued for the importance of the influence of thought processes on writing. Although there is overlap between the two schools of thought, some work that focused on the cognitive influences will be outlined.

1. Kinneavy's (1980) model used mostly at the secondary and college levels in the USA basically categorizes discourse into four main types with different purposes:

> Reference discourse emphasizes the subject
> Persuasive discourse emphasizes the reader
> Literary discourse emphasizes language
> Expressive discourse emphasizes the writer   (in Reid, 1993, p.14)

Kinneavy distinguished between means and ends in differing discourse purposes: methods of development such as comparison and contrast, definition, and cause-effect were viewed as means and exposition and argumentation were viewed as the ends of discourse (Reid, 1993). His model is more detailed than Moffet's in showing the relation among syntax, semantics and pragmatics (Kinneavy, 1983, p.126).

2. Britton's (1975) model has been influential at the secondary levels in the USA and United Kingdom, Canada and Australia. This model is similar to the one of Moffet's in the structure of the I-You (audience). However, it differs in that the I-It focuses on four functions of discourse (the 'why' and not types, the 'what'), expressive, poetic, persuasive, and informative. The latter is divided into sub-functions and is the most abstract and general of the four (see Figure 3.5 below). The model involves both product and process orientations towards writing.

Figure 3.5 Britton's Model of Writing (in Kinneavy, 1983, p.125)

```
                                        | INFORMATIVE (IT)
                                        | Record
                                        | Report
                                        | Generalized
                                        |     narration or
                                        |     description
                                        | Analogic - low
                                        | Analogic -
                FUNCTIONS               |     classification
                                        | Analogic -
                                        |     Tautologic
                                        | Tautologic
                                        | PERSUASIVE (You)
                                        | POETIC (Language)
                AUDIENCE                | EXPRESSIVE (I)
      <─────────────────────────────────
       YOU  UNKNOWN  WIDER  TEACHER  SELF  I
```

Examiner   Particular   General   Trusted
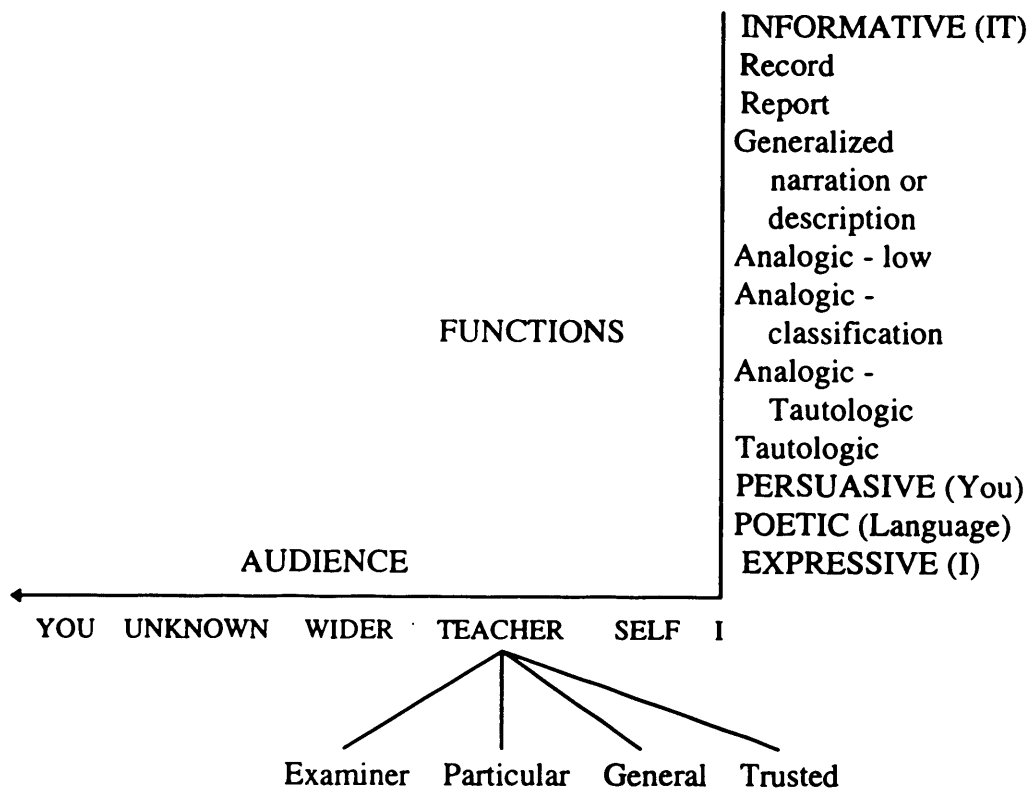
3. D'Angelo's (1975) model was the basis of much work used in beginning college level courses in the USA. He divides discourse into two categories, the logical (subdivided into static, progressive, and repetitive) and the non-logical (subdivided into imagining and repetition). The significance of Angelo's model is the division of static parts in such modes of development as comparison, exemplification, classification, division, definition, description and progressive parts into syllogism, cause and effect, process and narration. In a sense D'Angelo's (1975) theory is like Kinneavy's in its structuralism and product orientation and similar to those of Moffet's and Brittons' in being concerned with process '...but the thought process rather than process in the sense of a learning sequence or process in the sense of the acts of composing' (Crusius, 1989, p.5).

4. Flower and Hayes' (1981) model focuses on a cognitive process model of writing involving 1) the task context, 2) the writer's long term memory and 3) the writing process (p.370). They argue that it is mainly the cognitive processes that influence writer's choices of linguistic and textual features rather than the textual purposes of Kinneavy or the relation of writer, audience and task. It is the writer's long term memory, their 'storehouse' of knowledge (cognitive schemata) of the topic which affects the written product in either being writer based

(without a reader in mind) or reader based (adapted so that the receiver can follow the text). The writing process is then carried out successively by planning (drawing upon long term memory prior and during the writing process), translating (writing down information from the long term memory guided by the planning stage) and reviewing (checking work according to the purpose). The significance of this model is its focus on the cognitive aspect in influencing choices.

Theories of writing have provided various insights into both textual and outside textual factors that influence text production. This section has briefly shown the relation of outside textual factors such as purpose, audience, reader, context and cognitive processes to text production. Crusius (1989) stresses the importance of the theories:

' In our field, however, they [theories] have been and are still the most influential,
playing major roles in conceiving writing programs, course syllabi,
and texts; such enormous impact is reason enough for assessing them.' (p.3)

III. Influence of the Theories on L1Writing Research and Instruction with Specific Reference to ESL/EFL Composition Instruction Development

Many L1 theories of writing have greatly influenced research and instruction in both L1 and L2 (Couture, 1986; Grabe and Kaplan, 1996; Reid, 1993). Grabe and Kaplan (1996) report that this influence on L1 has been conducted along four major strands of interacting dimensions:

1. The study of *literacy development* or the acquisition of writing (e.g.Graves, 1983; Vygotsky, 1983; Wertsch, 1985, 1991; Calkins, 1986; Tharp and Gallimore, 1988; Dyson, 1989; Moll, 1990 in Grabe and Kaplan, 1996)

2. The *cognitive aspects* of writing (e.g. Hillocks, 1986; Bereiter and Scardamalia, 1987; Flower et. al. 1990; Flower, 1994; Kellogg, 1994; Smargorinsky, 1994 in Grabe and Kaplan, 1996).

3. The study of the text itself - *Textlinguistics* (e.g. van Dijk and Kintsch, 1983; vande Kopple, 1986, 1990; Halliday and Hasan, 1989; Cox et. al., 1990, 1991; Singer, 1990; Beck et.al.; Speigel and Fitzgerald, 1991; Hoey, 1991; Mann and Thompson, 1992; Coulthard, 1994 in Grabe and Kaplan, 1996)

4. The *rhetorical study* of writing (e.g.; Corbett, 1971; Homer, 1983; North, 1987 in Grabe and Kaplan, 1996).

Although L2 writing is concerned with the above areas, recent research has shown that the problems L2 writers face in writing are distinct to those in L1 (Johnson, 1989; Silva, 1990).

Related to textlinguistics and the present study, Grabe and Kaplan (1996) mention that there is a need to address anew questions such as the nature of coherent texts and how they are produced (using both process and product models) in relevant contexts (ibid., p.38) (see Chapters Four and Five).

Before reviewing the research in text analysis (Chapter Four), an overview is given of the influence of the writing theories on composition developments according to 1) aspects of the composition process: writer, audience, reality and truth and language and 2) composition developments according to four instructional approaches. Insights will be drawn from this work for the research design and for pedagogic recommendations.

A. Aspects of the Composition Process

This overview of aspects of the writing process follows Berlin's (1982, 1987, 1988) framework used by Johns (1990) and includes elements mentioned in the writing models above: 1) the writer (or 'knower', 2) the audience (or reader), 3) reality and truth, and 4) the sources of language in written texts. Under each of these broad categories, the review will indicate how the expressive and cognitive schools of thought have influenced research according to three approaches to composition instruction: 1) process, 2) interactive, and 3) social constructionist. L1 and L2 composition developments are included together.

1. The Writer

According to the *process approaches*, the writer is the originator and creative expresser of ideas in texts (Elbow, 1973, 1981, 1981b in Johns, 1990, p.25). Those that followed the *expressivist theory* of writing in the early part of the 20th century considered writing an art and the writer a creative discoverer of that art. The teacher was the facilitator or guide and many texts written were based on free writing. Textbooks contained assignments such as journal writing that encouraged self-discovery. Those that followed the *cognitivist theory* of writing viewed writing as problem solving and thinking (Flower, 1985, 1989 in Johns, 1990, p.26). Researchers (Zamel, 1983; Spack, 1984; Raimes, 1987 in Johns, 1990, p.26) following Flower and Hayes' (1981) notion that writing is not linear but individual and recursive, studied the writing processes of ESL writers and, comparing them to those of L1 writers, found that there was much in common. The major role of a teacher is to heighten students' awareness of their own writing process so that they can draw on this metacognition to guide their own work. Emerging texts go through several drafts of planning, writing, revision and editing; group work is considered essential in the process.

In the *interactive approaches*, the writer needs to be aware of the audience (Bakhtin, 1973 in Johns, 1990, p.26) and thus the creation of the coherence of the text is the responsibility of both the writer and the reader (see Hinds, 1987 in Johns, 1990, p.27). Thus the writer must ensure that the organization, transitions, cohesion, direct explication are used appropriately in order to communicate the message to the reader (Meyer, 1977; Singer, 1984 in Johns, 1990, p.27).

In the *social constructionist view*, the writer produces text for a specific social context and audience (Kuhn, 1970; Coe, 1987 in Johns, 1990, p.27, Blyer, 1993). Thus, it is the 'discourse community' that affects the construction of the text. Swales (1990a) defines the discourse community in six respects, having: common goals, mechanisms for intercommunication, participatory mechanisms, focuses on particular genres, has specifc vocabulary, and members who have relevant content and expertise. However, some researchers (Bizzell, 1987 in Johns, 1990, p.28-29) see the problems when 'basic ESL writers' try to work within the academic community and argue that it is the academy that should adapt to the students' needs; others (Horowitz, 1986; Huckin, 1987 in Johns, 1990, p.29) believe that EAP (English for Academic Purposes (EAP) classes should be set up to meet the students' needs. Concerning the specific tasks to be taught, some view the teachers' and academy's role as helping students acquire necessary academic writing skills through general academic tasks (Spack, 1988 in Johns, 1990, p.29) which will then transfer to their content courses (Johns, 1988 in Johns, 1990, p.29), while others argue that this induction is best done through more specific discipline related tasks (Swales, 1984; Connor and Johns, 1989 in Johns, 1990).

2. The Audience

The *expressivist school* (the extreme process approach) believes the audience is created by the writer (Nystrand, 1986; Ede and Lunsford, 1984, Elbow, 1981b in Kroll, 1990, p.30). The teacher's role is to encourage students to write with honesty and for themselves.

The *cognitivist school* (the second process approach) focuses on the mental processes of the writer in creating text while keeping the reader in mind (Kroll, 1978 in Johns, 1990, p.30). The problems that college writers face are attributed to the inability of students to produce texts that are more 'reader based' (Flower, 1979 in Johns, 1990) In fact, this school of thought is closer to the interactivist view than that of the expressivists (Berlin, 1987 in Johns, 1990, p.30).

In the *interactive view*, the writer takes into account the reader's background and knowledge and structures text accordingly. This knowledge of the reader is referred to as the schemata of the reader, which implies that the reader has an active role in the construction of the coherence of text. The implications of this theory have been followed up in reading classes (Chapman, 1983; Carrell, Devine, and Eskey, 1988 in Johns, 1990) and recently in ESL writing classes (e.g. Hillman and Kessell, 1986; Johns, 1986b in Johns, 1990, Johns, 1993).

The *social constructionist view* sees writing as a social act, the writer being part of a discourse community (Kirsh and Roen, 1990; Swales, 1990; Barton and Ivanic, 1991). In an academic setting, the writer must conform to the conventions of the community and must produce academically acceptable text. It is here that many ESL/EFL students face problems and the role of the teacher again is to help these students acquire the necessary relevant skills and awareness of discourse community expectations.

3. Reality and Truth

This component is also part of composition instruction and involves the teaching of a version of reality and the student's place in it. In process approaches, the *expressivists and cognitivists* views of reality are seen as being personal and residing in the mind of the writer (Berlin, 1982 in Johns, 1990, p.31). For the *interactionists*, reality and truth are negotiated between the writer and the reader through the text; for the *social constructionists*, these are best revealed through the genres of the discourse community (Swales, 1990). The teacher's role in the academic community is to make students aware of the rules of discourse in the production of texts.

4. The Language Component

For the process approaches *(the expressivists and cognitivists)* the language is an outcome of the writer's choice of content and creative urge. For the *interactionists*, the language used must take into consideration the L2 reader's repertoire, experiences, and background; for the *social constructionists,* it is the language that is used by the specific discourse community which must be considered. In an academic setting, students must learn to use the appropriate language which conforms to the discipline which they are studying.

B. Approaches in Composition Instruction

Developments in L2 contexts have drawn much from L1 writing theories, research and instruction briefly outlined above. However, there is a sharper focus on the learners' different languages, cultural and social backgrounds drawing on contrastive analysis studies.

Researchers have noted the developments in the L1 field but at the same time the need for more research into L2 writing problems especially the need for more research to be done in countries other than USA (Couture, 1986; Donovan, 1980; Murray and McClelland, 1980; Long, 1983, 1988; Beebe, 1988; Herrington, 1989; Rizzardi, 1990; Frankenberg-Garcia, 1990; Kroll, 1990; Larsen-Freeman and Long, 1991; Mitchell and Brumfit, 1991; Raimes, 1991; Johnstone, 1992; Reid, 1993; Muchiri, 1995; Grabe and Kaplan, 1996).

The L2 composition developments are given below according to four main instructional approaches: 1) Controlled composition, 2) Current-traditional rhetoric, 3) The process approach, and 4) English for academic purposes (Silva, 1990). These approaches are not to be viewed wholly discretely since the teaching/learning situations commonly involve a mixture of the practices.

1. Controlled Writing

Controlled writing or guided composition was based on the audio-lingual approach (Fries, 1945 in Silva, 1990, p.12) that advocated learning as habit formation through exercises. Some linguists (Erazmus, 1960; Briere, 1966 in Silva, 1990, p.12) advocated exercises in the form of 'free writing', while others believed that writing reinforces the other skills and is best learned through pattern practice through substitutions, transformations, expansions, completions etc. without considering audience or purpose of the task (Pincas, 1962 ; Dykstra and Paulston, 1967 Rivers, 1968; Paulston and Bruder, 1976 etc. in Silva, 1990, p.12, Baskoff, 1981; Thiede-Gonzo, 1983). Writing in freshman classes mainly dealt with practising grammar at the sentence level (Reid, 1993).

2. Current Traditional Rhetoric

In the mid 1960's, controlled composition and pattern drill was found to be inadequate to teach ESL writing above the sentence level (Kaplan, 1970, 1972; Taylor, 1976; Arapoff, 1967, 1968, Car, 1967 in Silva, 1990). With Kaplan's (1966) theory of contrastive rhetoric, teaching/learning of writing began to focus on discourse patterns and such rhetorical structures as comparison/contrast, definition, description, cause-effect. Thus, the 'pattern drill' focused more on the rhetorical level rather than at the syntactic level; for example, in sentence-combining exercises. The organization of students' discourse into paragraphs and topic, supporting, concluding sentences and transitions became important in developing expository discourse suitable for academic university work. The teacher was viewed as the 'judge'of the written discourse and students had to comply to the conventions in language and

organization. The approach is still dominant in ESL teaching/learning situations today and textbooks abound in the rhetorical format.

3. The Process Approach

This approach was a direct response of the expressive school. Supporters argue that the composing process is non-linear and recursive and stress the importance of a sequence of pre-writing, writing and post writing strategies that students employ to produce a final product (Raimes,1978, 1983a,b,c, 1985, Spack, 1984, Hamps-Lyons, 1986, Krapels, 1990, Zamel, 1976, 1983b, 1987 in Johns, 1990). It has been influential in initiating cooperative and collaborative techniques in composition classes (Perle, 1980; Leavitt-Shanklin, 1981; Mosenthal, 1983; Bacha, 1983; Peacock, 1986; Witte and Cherry, 1986; Franken, 1987; Liebman-Kleine, 1987; Allwright et.al., 1988; Robinson, 1988, among others). There is much emphasis on communication based on the communicative approach to teaching language (e.g. Wilkins, 1976; Munby, 1978, Widdowson, 1978 in Reid, 1993; Johnson, 1982) which stresses: authentic materials (e.g. Rinvolucri, 1983; Tomlinson, 1983; Vincent, 1990), issues such as the purpose of the text, the audience, the context, the individual learner's need and the importance of individualized learning (Shirin, 1991), colloborative writing techniques (Flower, 1988; Reid, 1993, p.39-41), teacher-pupil conferencing (e.g. Goldstein and Conrad, 1990) and peer group work (e.g. Davies and Omberg, 1987). Grammar is learned in context at the discourse level (Ragan, 1989; Keh, 1991; Fotos and Ellis, 1991; Celce-Murcia, 1991). Theories that students acquired language 'naturally' as Krashen's monitor hypothesis claimed (Krashen, 1978, 1981, 1982, 1984) were viewed with caution as more researchers and teachers found that instruction in a second language was significant in developing students' writing (e.g. Long, 1983). Textbook formats changed to include sections on pre-writing, brainstorming techniques, planning, outlining, drafting, revising and editing in the process of writing (Taylor, 1980; Blanton, 1987; Hedge, 1988; White, 1988; Nelson and Murphy, 1992; Porte, 1995). Critics of the process approach argue that it is not practical in an academic context as it emphasizes the process and invention skills of the writer to the detriment of focusing more on the final product (Sampson, 1980; Reid, 1984a,b; Horowitz, 1986 in Johns, 1990; Hamdan, 1988). However, when combined with traditional rhetoric writing, the process approach can form an integrative approach necessary for writing in an academic community (Robinson, 1988). Since EAP provides the context for the present study in which the relative role of the essay is viewed, some major developments in this fourth approach are reviewed.

4. English for Academic Purposes

As a reaction to the process approach, many researchers and teachers saw the need to teach English, specifically the writing of texts, with an academic orientation (Spenser, 1983; Horowitz, 1986c,d; Johns, 1986; Reid, 1984c, 1985, 1987, 1989; in Johns, 1990; Purves, 1986; Shih, 1986; Chaudron, 1987; Leki and Carlson, 1989; Mitchell and Brumfit, 1989; Adamson, 1990; Brookes, 1990; Dudley-Evans, 1990; Nash, 1990; Cummins, 1991; Hinkel, 1992; Holstrom, 1992; Montgomery et.al., 1992; House, 1993; Sitler, 1993, among others). Some saw a need for more classroom based research to focusing on the problems and needs of the students (McDonough, 1986; Barra, 1993). Basically, the EAP approach involves giving the students the necessary language skills to deal with certain academic genres and academic schemata to join a discourse community (Al-Chalabi, 1984; Swales, 1984, 1990). Although there are controversies within the approach itself on how far writing should be emphasized in specific disciplines and whether it is the role of the English teachers to teach the content of the courses (see Horowitz, 1986b; Spack, 1988a,b; Braine, 1988 and Johns, 1988), its importance to academic success can not be denied in the L2 context. Composition writing is viewed in the present study as significant in helping with general learning and thinking in an academic context. Yet, explicitly or implicitly university teachers evaluate students' writing, hence a review of its role as part of academic writing is given.

a. Nature of Academic Writing

Academic writing over the past decade has assumed important pedagogic aims and has focused on the teaching/learning procedures (Mitchell and Brumfit, 1989). In reviewing the debate on the nature of academic writing, Jordan (1989) shows its relationship with other kinds of English for specific purposes (see Figure 3.6) and indicates that it includes both general and specific tasks .

Figure 3.6 EAP in Relation to ESP

(Jordan, 1989, pp.150-155)
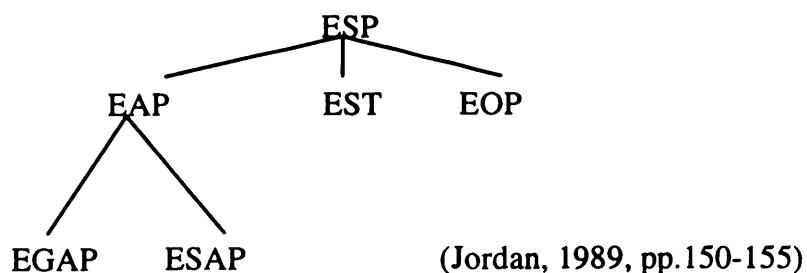
Abbreviations in diagram
ESP   English for Specific Purposes
EAP   English for Academic Purposes
EGAP   English for General Academic Purposes

ESAP   English for Specifc Academic Purposes
EST   Englilsh for Science and Technology
EOP   Englilsh for Occupational Purposes

Jordan (1989) along with Flowerdew (1990) and Mitchell and Brumfit (1989) note the concern of teachers and researchers on whether emphasis should be placed on general English or more subject specific English and tasks. (e.g. Mountford, 1977; MacLean, 1975; Glendinning, 1974; 1980; 1987) thus making the role of the writing teacher quite controversial. As Kroll (1990) points out:

> "While Spack (1988:30) sees the role of the writing teacher as
> initiating students into the "academic discourse community,
> Johns points out that there are competing interpretations of
> what a teachers' role should be and even of what modes or
> types of prose should be produced in the composition classroom." (p.141)

For the present study, essays in the rhetorical mode of cause-effect represent one kind of task which is widely considered important in the learning situation. In fact, many researchers working on syllabus design (e.g. Johnson, 1982; Jordan, 1989) and textbook authors (see Hamp Lyons and Heasley, 1984) note that the teaching of academic writing is commonly organized according to types of discourse or genre, often according to rhetorical patterns. The essay, then, is considered one type of academic writing which helps students to deal with other academic tasks such as examinations or research reports in the various disciplines at the university. It is the genre needed to learn and to demonstrate learning in writing.

b. Role of Writing in Learning

Researchers have noted the relation between writing, learning and education. Education currently focuses on learning, not on rote memorization of ideas, but rather on understanding, application and discovery and so does writing (White, 1988a,b). Writing is not just getting language down on paper orthographically; it is a process of thinking and re-thinking, until one discovers meaning and expresses it coherently in language (Vygotsky, 1962; Arapoff, 1967; Lawrence, 1972; Odell, 1980; Elbow, 1981 Zamel, 1982; Jollife, 1988; Spack, 1988; Hamps Lyons, 1991; Yau, 1991; Freedman, 1994; Hildyard, 1994; Purves, 1994; Olson, 1996). Writing, in this view, is part of education or a means to it (Emig, 1977; Kadar-Fulop, 1988; Nash, 1990; van Peer, 1990; Barton and Ivanic, 1991; Herrington, 1992).

Related to writing in learning, some researchers have noted the significance of the role of talk between students and teachers and students among each other in the classroom where feedback is provided in helping the students understand, formulate and express their ideas (Sinclair and Coulthard, 1975; Sinclair and Brazil, 1982; Grimshaw, 1990). Talk (or

communication) in this sense can be viewed as helping students in thinking/learning in the production of texts.

Thus, writing in an academic context is important as an educational tool kit and essay writing, it is claimed, is an important instrument which is discussed further in the next section.

c. Importance of Essay Writing

The particular importance of essays in thinking and learning have been noted by many (Hamp-Lyons, 1986b; Witte and Cherry, 1986; Purves, 1988; Hunter-Carsch, 1990, among others). Hunter-Carsch's (1990) observation is quite significant, and worth quoting at length.

> "Essay writing is a major part of schooling and the development of literacy in primary, secondary and tertiary education in this society. It has long been considered as an economical means of developing clarity and fluency of written expression. Both for the writer and reader it is a way of sharing within a disciplined form, the exploration of a topic, marshalling of evidence to support or refute arguments and demonstrating the writer's ability to communicate cogently. Optimally, essays include some originality of thought, usually a critical perspective and essentially a form that is legible, orderly and free from errors of reporting or of spelling and syntax." (p.77)

> "No wonder", she adds, "the essay can be daunting!" (ibid., p.77)

Purves (1988) in an international study evaluating non-native compositions argues that the essay is one of the few systematic opportunities for young people to clarify their views in a coherent text (p.172). He further stresses its cognitive importance in performing intellectual functions such as giving reasons, illustrating, comparing/contrasting, concluding, or evaluating. The importance of the essay seems undeniable, not only as a pre-requisite for more specific tasks in the disciplines, but more importantly as a genre in which the development of thinking and learning can be expressed. However, this is no 'easy' endeavour as the following section shows.

d. 'Difficulty' of Writing Essays in an Academic Community

The problems students face in writing coherent essays have been pointed out by many researchers (Stubbs, 1980; Chambers, 1981; Fanning, 1981a,b; Bereiter and Scardamalia, 1983, Grabe and Kaplan, 1996, Schleppergrell, 1996, among others). Some of these problems are outlined below, emphasizing psycho-socio and textual issues.

Developmentally, speech comes before writing (Goodman, 1987). Thus, when a child begins to learn to write there are features of speech that are often transferred to early attempts at writing. These do not necessarily disappear at later levels. Pronunciation may influence spelling, e.g. *'Deer Gadmtr I luv yu'* and the coordinating structure of the oral mode may

influence written discourse, e.g. '*One day the horse got lost and the oner was sad and then the oner found the horse and the horse ...*' (Goodman,1987). Also, as has been outlined above, writing is inextricable from the thinking process (Arapoff, 1967; Bereiter and Scardamalia, 1983; Zamel, 1982, 1992). As Bereiter and Scardamelia (1983) point out:

> "Writing becomes a task of representing meaning rather than transcribing language. This immediately makes writing a much more difficult task and sets the writer off on a road that increasingly diverges from the transcription of language ..." (p.25)

A second difficulty is not having an *audience* present (except for the teacher or a hypothetical posed one) which makes the planning of units of discourse a formidable task. The writer has to be both encoder and decoder and revise and edit information to conform to the syntax of appropriate written discourse and to match reader's academic schemata. Stubbs (1980) points out:

> "The traditional classroom task of 'writing of an essay' may in some ways be more difficult than the task performed by professional writers since it may involve writing without clear stylistic conventions with no genuine communicative function, and with no genuine audience in mind." (p.115)

A third difficulty of writing is that the meaning must be clothed in a 'correct' *structure* according to standard conventions and the academic community (see Section I. in this chapter). As Kress (1982) puts it, writing needs '...the development of a new syntactic, semantic and textual unit - the sentence' - [with subordination and embedding]. (1982, p.35) The structure, then, must be edited for mechanical errors since punctuation and capitalization are not analagous to the intonational features in speech. (ibid., p.39). And all this must be organized in a larger text according to paragraphs which are non-existent in speech. Bereiter and Scardamalia (1983) group these problems mainly according to the proficiency level of the student: the 'low road' (acquiring basic structure) or the 'high road' (analytic development of ideas) and although there are overlaps they view the 'high road' as being more difficult for students. In academic writing, there are different modes of writing or genres (see Chapter Two) which involve units above the sentence; local features such as cohesion and grammatical structure; and more global features dealing with coherence or style. Cohesion and coherence connect the 'low' and 'high' roads. As Harnett (1986) says, 'Cohesion reflects

mental processes which both writers and readers perform." (p.143).

Writing can be viewed as even more complex when structure for *stylistic* purposes is manipulated. Kress (1982) gives an extract from one of Ernest Hemingway's novels which

emphasizes the use of the simple, unconnected, short sentences to create an atmosphere of sadness and allow the reader to imagine the scene. Kress says of the short passage quoted below '..in creating textual incoherence Hemingway is creating precisely the world of someone in severe shock, unable to prevent sensations from reaching his mind and unable to impose any order on these sensations" (ibid., p.98).

> "Nick sat against the wall of the church where
> they had dragged him to be clear of machine-
> gun fire on the street. Both legs stuck out
> awkwardly. He had been hit in the spine.
> His face was sweaty and dirty. The sun
> shone on his face. The day was very hot."
>   by Hemingway from *First Forty Nine Stories* (in Kress, 1982, p.97)

Hemingway's sentence structure does not show an inability to use subordinating structures. This is clearly an example of style which differs from that of some other genres in the academic discourse community. However, it is generally believed by teachers that students should first focus on maintaining coherence in their writing before attempting to use sentence structure 'creatively' to depict a certain mood such as that in Hemingway's text (although some students have proved to be more 'creative' than academic writers and creative writing may be viewed as 'easier' to produce than expository writing (Elbow, 1981).

Even within the genre of the essay, Bereiter and Scardamalia (1983, p.29) view the rhetorical types of narration and description as easier than that of persuasion. The latter is considered more 'difficult' in that it involves a higher level of complex cognitive processes of selecting, interpreting, refuting and concluding. However, it can be argued that complexity is relative to the content; some narratives can be quite complex when techniques such as flashbacks are used. All in all, writing an essay is difficult. Although Bereiter and Scardamalia's (1983) comment seems exaggerated, it does emphasize the difficulty:

> "Writing a long essay is probably the most complex constructive act
> that most human beings are ever expected to perform." (p.20)

Many studies have been carried out on students' essay writing problems at the university level dealing with these psycho-socio and textual issues (Chambers, 1981; Al Chalabi, 1984; Williams, 1984; Couture, 1986; Peters, 1986; Santos, 1988; Weir, 1988; White, 1988; Zamel, 1988, among others). An example is Weir's (1988) study of native and non-native problems, which found that usually non-native speakers find more problems in vocabulary rather than in structure and grammar, while their teachers thought the main problems were to do with content. Other research calls for more development in vocabulary and lexical choice in L2

writing (e.g. Thompson-Panos and Thomas-Ruzic,1983; Santos, 1988, Hoey, 1991a). White (1988) further points out that some problems a writer faces could be due to the non-native speaker 'having to draw upon appropriate schemata as a basis for organizating ideas, and in having sufficient access to the foreign language to be able to encode these ideas in a form that is accessible to the intended readership' (p.12) (see Chapter Two). Benson (1993) in asking three students to reflect on their experiences of learning to write at university (1989-90) reported that they all had the following in common:

> "... they had a strong sense of writing essays at university as
> another 'world of literacy' into which with some difficulty and less
> than optimum support they had had to initiate themselves...." (p.1)

The problems of writing already listed and the insights from such studies inevitably lead to the conclusion that students need to learn how to write in an academic setting. The students at LAU are not exceptions. While research continues in the psycho-socio and textual issues (see Chapters Four and Five) in order to gain further pedagogical insights, many institutions have now set up specific programs to deal with the problems of L2 writers. This is discussed briefly in the following section.

e. Writing Across the Curriculum Programs (WAC)

Since the 1970's, many universities in the US have instituted writing across the curriculum programs which coordinate the efforts of the EFL Programs among the various disciplines towards developing students' writing competence in content courses (McCarthy, 1987; Fulwiler, 1988; Smith L, 1988; Herrington and Moran, 1992; Kerr, 1992; Reid, 1993; Weinberg, 1993; Leki and Carlson, 1994). Although some view these programs with skepticism, Fulwiler (1988) notes "For students, [these] programs promote general literacy, critical thinking, improved writing, and active learning' (p.1) and Weinberg (1993) discusses one that has been successful.

The assumption behind these programs is that students need training in writing in their disciplines; 'write to learn' as Reid (1993) puts it. The focus is on an integrated skill approach that emphasizes the writing needs of each discipline with articles and textbooks outlining procedures (Dudley-Evans and Swales, 1980; McDonough, 1985; Johnston, 1985; Comfort, 1986; Brown, 1987; Doherty, 1987; Dudley-Evans, 1990; Flowerdew, 1990; Swales and Feak, 1995, among others). Reid (1993, pp.177-204) divides the writing academic tasks into four areas: a) sequencing assignments, b) connecting reading and writing assignments, c) integrating skills in the writing classroom, and d) designing writing assignments. Her

argument is that the student should be empowered with strategies to develop in the writing skills needed for academic work. The classroom should provide an atmosphere in which the student interacts with peers, with the teacher as an individual, and in groups in the learning process. The implication is that assignments (e.g. surveys, summaries, advertisements, research papers or essays) are best learned with a combination of product and process writing. In addition to establishing procedures for learning specific written tasks in the various disciplines, recent studies have also been preoccupied with such textual linguistic features as cohesion, clausal and topic relations required in academic texts (e.g. Hill, 1986; McCarthy, 1987; Hannay and Mackenzie, 1990)

The implication of such programs for the present study is that writing and freshman composition courses (of which the essay is part) are taking an increasingly serious role in developing students' writing.

5. Computers in Writing Instruction and Research

A recent area in the development of students' writing is the use of computers. Although this is not directly relevant to the present study since it may have an impact in the future, a word on it is in order. Reid (1990) shows that the effectiveness of computer-assisted learning (CAL) or computer assisted instruction (CAI) has been questioned by some researchers (Hirvela, 1988; Gueye, 1989 in Reid, 1993) but that others have found it quite effective in the writing classroom (Rivers, 1990; Bickes and Scott, 1989; Clutterbuck, 1988; Cook, 1988; Higgins, 1988; Cunningham, 1987; Higgins and Johns, 1984 in Reid, 1993). Many researchers have claimed that some value may be attributed to the computer in developing students' writing in the future (McAllister, 1988; Kenning, 1990; Cornu, 1990; Lonergan, 1991; Williams in Butler, 1992; Greenia, 1992; Pennington, 1993; Snyder, 1993; Chapelle, 1996). Reid cites one effective use of the computer to improve students' compositions has been in using software programs that identify student errors and networking programs in which students can view each other's texts and colloborate in text production (Esling, 1991; Rinkerman and Moddy, 1992 in Reid, 1993). Although some of the research does show that those using the computer perform better than those who do not, there is general agreement that more work needs to be done to see whether it will be significant in teaching composition.

In linguistic research, computer facilties have been utilized successfully in the analysis of texts for various linguistic features and to build lexicons such as COBUILD (Mejs, 1996). It should be possible in the future to use computer programs to analyse the lexical cohesive relationships as outlined by Hoey (1991a) which will greatly help in researching larger and

longer samples of texts. All in all, the application of the computer in composition instruction and linguistic research has advances, but more research is needed to fully exploit the potentialities.

This chapter has so far reviewed aspects of the oral/written modes, theories of writing and their influence on composition instruction. This last section reviews some major composition assessment procedures which guided the choice of the holistic criteria used in the present study.

IV. Assessing Student Compositions

Recent L2 composition instruction approaches have necessitated assessment procedures that deal with both the process and the product in an academic setting (Davidson, 1976; Griffin, 1982; Lynch, 1982; Hamp-Lyons, 1986; Johnson, 1988; 1991; Carroll and West, 1989; Norton, 1990; Olaofe, 1992; Cohen, 1994; Connor-Linton, 1995; Leeds, 1996; Scott, 1996). It is generally accepted by teachers and researchers that there are two main goals of evaluation: one to provide feedback (referred to as *responding*) during the process of writing a text and the other to assign a final grade or score (referred to as *evaluating*) that will indicate the proficiency level of the product (Reid, 1993). This section will discuss procedures of responding and evaluating.

A. Responding to Student Writing

Responding to student writing during the writing process assumes that students best improve if they are given ample opportunity to write several drafts and receive intermittent teacher feedback before the final product is evaluated or awarded a score. Some research shows that teacher feedback (either written or given orally in conference during the writing process) leads to writing improvement (Sommers, 1982; Davies and Omberg, 1987; Hyland, 1990; Keh, 1990; Walker, 1992; Reid, 1994; Dheram, 1995; Ferris, 1995; Hayman, 1995). Significantly, feedback on discourse rather than on surface features improves writing quality (Robb et.al., 1986). Peer feedback (Mangelsdorf, 1992; Caulk, 1994; Mendonca an Johnson, 1994) and individual assessment (Miller, 1982; Charles, 1990) also lead to significant improvement in student writing and complements teacher feedback in providing a realistic reader. However, students in settings with a more 'traditional' type of instruction may not view peer and self responses seriously. Reid (1993) points out that further research should take into acount classroom settings and course goals.

B. Evaluating Student Writing

The evaluation of compositions and assigning the essay a score indicating the proficiency level is perhaps one of the most frustrating areas in EFL methodology. It has had a long history with various procedures and scoring criteria in both L1 (Braddock et.al.,1963; Cooper and Odell, 1977, 1978, Raymond, 1982; Hillocks, 1986) and L2 (Oller and Perkins, 1980; Lloyd-Jones, 1987; Pere-Woodley, 1991; Douglas, 1995; Shohamy, 1995). The extent of the difficulty is explained by Kroll (1990).

> "There is no single written standard that can be said to represent the 'ideal' written product in English. Therefore, we cannot easily establish procedures for evaluating ESL writing in terms of adherence to some model of native-speaker writing. Even narrowing the discussion to a focus on academic writing is fraught with complexity.' (p.141)

However, this is not to say that work in evaluation has not produced some very positive results. Since the present research was concerned with evaluating texts before the lexical cohesive analysis was carried out (see Chapters Six and Eight), a brief account of issues related to a) reliability, b) validity c) procedures and d) criteria that were considered are discussed.

1. Reliability in Evaluation

Reliability is concerned with how well the scores assigned indicate the students' writing proficiency level. Correlation coefficients of .80 and above between readers' scores (inter-rater reliability) as well between the scores assigned by the same reader (intra-rater reliability) to the same task are considered acceptable for decision making (Kaczmarek, 1980; Jacobs et.al., 1981; Bamberg, 1982; Hamp-Lyons, 1986a, 1991; Ebam, 1989). When more emphasis is placed on direct writing evaluation in academic contexts, the issue of achieving reliability of scores becomes significant and necessary (Braddock et.al. 1963; Bamberg, 1982; Perkins, 1982; Bachman, 1990; Hamp-Lyons, 1991).

There is research that indicates that the gender, backgound, training and expertise of the reader in evaluating texts can affect scoring (see Siegel, 1982; Takashima, 1987; Brown, 1991; Hamp-Lyons, 1991; Cushing Weigle, 1994). Thus, in order to maintain reliability many programs and large scale direct writing evaluations have put heavy emphasis on the training of raters and high positive significant correlations have been obtained (Jacobs et.al., 1981; Carlson and Bridgeman, 1986; Hamp-Lyons, 1991). Other studies have shown significant correlations between some linguistic features (e.g. vocabulary and syntactic features) and holistic scores (e.g. Mullen, 1980). Further research has also shown that readers in related

disciplines are more tolerant of grammatical errors than their colleagues in the English programs. Some research has attempted to study the lack of writing competence of non-native readers themselves (Takashima, 1987). One might add that perhaps the only teachers who do any amount of academic writing themselves are those who do research or write books - a minority?!

2. *Validity*

Validity is concerned with whether the test or assignment actually tests what it sets out to (Hamp-Lyons, 1991; Jacobs et. al., 1981). There are five important concerns of the validity of the task.

1. *Face validity*: does the test appear to measure what it purports to measure - namely, ability to compose a piece of written communication.

2. *Content validity*: does the test require writers to perform writing tasks similar to what they are normally required to do in the classroom? Does it sample these tasks representatively?

3. *Concurrent validity*: does the test seem to tap the same skill or components of a skill that other similar tests also purport to measure?

4. *Construct validity*: does the test produce significant information about a writer's ability to communicate effectively in English?

5. *Predictive validity*: does the test predict learners' writing performance at some time in the future, say in a particular academic program or English class?

Much research on task validity has been carried out in L2 composition evaluation (Weir, 1983; Horowitz, 1986a, b; Johns, 1981, Purves, 1992b; Ruth and Murphy, 1988; Hamp-Lyons, 1990; 1991) which argues that valid tasks are those that '...occur in the contexts in which the writers being assessed will need to write' (Hamp-Lyons, 1990, p.73). Although the validity of the essay in 'real life' contexts has been questioned, it can be argued that the thinking skills acquired during the process and the acquisition of the writing skills are transferable to any writing context. In addition to the validity of the task to the context of writing, researchers have studied the different associated variables of the task: length, time to write, use of paper and pen, typewriter, or word processor; topic variables: the prompt, the purpose, the audience, the discourse mode. There is sufficient evidence to indicate that these variables affect performance and should be taken into consideration in any direct writing evaluation (Crowhurst and Piche, 1979; Hoetker, 1982; Quellmalz et.al., 1982; Brossell, 1983; Smith et.al., 1985; Carlman, 1986; Horowitz, 1986a; Kegley, 1986; Caudery, 1990; Kroll,

1990b; Hamp-Lyons, 1990; Hayward, 1990; Read, 1990; Purves, Gorman and Degenhart, 1992b). In the present study, these variables were accounted for (see Chapter Six).

3. Scoring Procedures

This section describes a few major scoring procedures used in evaluating ESL academic writing: 1) holistic, 2) analytic, and 3) primary and multi-trait. These have received much widespread attention in direct writing evaulation research (Kroll,1990, Alderson, 1991; Reid, 1993, Cohen, 1994; White, 1994; Hamps-Lyons, 1995).

a. Holistic Scoring

This type of scale is impressionistic in the sense that a rater quickly reads through the text and gains a general impression of the writing proficiency and awards it a score, a letter grade or a number on a preconceived ordinal scale which corresponds to a set of descriptive criteria of what each level is in terms of language proficiency. Benchmark or anchor papers (sample papers drawn from students' work which represent the levels) are chosen as guides for the raters who each award a grade without knowing other raters' scores. The final grade of the text is usually the average of two raters' scores. If there is a wide discrepancy, to be determined by those concerned, then a third reader is required and the two closest scores are averaged. In more explicit holistic scoring, grading criteria are detailed for each of the levels which '...establish the standards for criterion-referenced evaluation...' (Reid, 1993, p.239) rather than norm-referenced (evaluating students in comparison with each other); then papers can be evaluated across groups. Through rater training and experience, high inter- and intra-reliability correlations can be attained (Myers, 1980; Najimy, 1981; Homburg, 1984; Carlson, 1985; Reid, 1993; Cumming, 1990; Hamp-Lyons, 1990; Reid, 1993; Upshur and Turner, 1995).

However, holistic scoring focuses on what the writer does well and does not indicate the specific areas of the writing skill that are deficient (Charney, 1984; Cumming, 1990; Hamp-Lyons, 1990; Reid, 1993; Cohen, 1994; Cohen, 1994; White, 1994). This type of scoring can be used, nevertheless, for evaluating classroom essays and large scale ratings such as evaluations of writing in the international tests of Test of Written English (TWE) of the TOEFL (see point d.). For program assessment and student diagnostic purposes, holistic scoring can serve a preliminary purpose of identifying the various over-all level proficiency levels of essays, but for more information regarding the teaching/learning process more specific criterion-referenced evaluation criteria rather than norm-referenced are needed such as the analytic, primary or multi-trait scoring methods. Researchers argue that there is a need for

more qualitative evaluation procedures that distinguish high and low holistically rated essays such as lexical, syntactic, discourse and rhetorical features (Tedick, 1990; Connor-Linton, 1995). Some research indicates that ESL/EFL students favour correction of their errors and perform better if identification of error is balanced with positive comments according to clearly identified writing evaluation criteria (Reid, 1993).

b. Analytic Scoring

Analytic scoring scales are more criterion-referenced in evaluating the different aspects of the writing skill such as content, organization, grammar, mechanics (e.g. Jacobs' Composition ESL Profile, see section 4.). These scales may also include specific features such as cohesion subsumed under organization (i.e., the structural and lexical signals that connect a text) (e.g. Weir's (1990) TEEP Attribute Writing Scale, see section 4.). Some raters may emphasize different aspects of the scale especially easy to identify features such as grammar; however with training, the feedback could be very enlightening (Cohen, 1994).

c. Primary and Multiple-Trait Scoring

Primary trait scoring was used towards efforts in obtaining more information than holistic scores and to evaluate clearly specific tasks first developed by the National Assessment of Educational Progress (NAEP) in the 1970's by Lloyd Jones (1977 in Cohen, 1994). Basically, this scale deals with the setting up of criteria prior to the production of a particular task. Although the focus is on one task, often evaluation may slip back to more holistic ratings. Multiple-trait scoring focuses on more than one trait in the essay but in a different way from that of analytic scoring. Often teachers need to consider how students have read, summarized an article or argued one side of an issue (Hamp-Lyons and Henning, 1991; Cohen, 1994) skills which are often not included in analytic scoring. Although quite revealing, the evaluation may also fall back on holistic methods in actual ratings (Cohen, 1994). Also, there could be a backwash effect in that instruction is influenced by the evaluation criteria; teachers should be aware of this (Cohen, 1994; Connor-Linton, 1995; Prodromou, 1995).

Cohen (1994) gives score results of a few sample essays that were evaluated by the various scales mentioned above. He notes that there is variation of results depending upon how raters perform and which scales are used. He concludes that in any writing evaluation training program, raters should focus on the criterial objectives set, use the same criteria with a common understanding, attempt to have novice raters approximate expert raters in rating, and have all raters sensitive to the writing strategies of students from other languages and cultures (p.336).

d. Portfolio Evaluation

This type of evaluating students' writing was devised as an alternative method of assessment to the composition and basically entails evaluating representative writing assignments over a period of time. It focuses on the process of writing and emphasizing the evaluation of the students' best writing assignments (Reid, 1993; Cohen, 1994; Hamayan, 1995; Hewitt, 1995; Leeds, 1996). However, as some research shows, this type of assessment may tap the teacher's work more than the students' in identifying representative samples, or setting criteria and thus give an unrealistic picture of the students' real performance at the end of the semester (Reid, 1993; Cohen, 1994).

The above account of assessment procedures show that a choice of any one or a combination of evaluation methods depends upon the purpose of the task and the context. In the first stage of the text analysis in the present study, both holistic and analytic scoring procedures were carried out using the EFL Program's Evaluation Criteria and Jacobs' ESL Composition Profile (see section 4. below).

4. Scoring Instruments

Even though the search for objective evaluation criteria is complex, there have been successful attempts of using scoring instruments in ESL writing evaluation some of which were studied for possible use in the present research. These are briefly discussed below from holistic to more primary or multi-trait scoring with an assessment of their suitability for the present study.

a. The TOEFL Test of Written English (TWE) Scoring Guide

This is a holistic measure of foreign students' writing of a composition used for entry purposes into universities and colleges in the U.S.A. and other countries. It is based on a 6 point scale: 1 represents incompetence in writing on the rhetorical and syntactical levels and 6 represents clear competence. The scoring guide was revised in 1990 (see Pierce, 1991; Reid, 1993) and reliability and validity studies carried out (Kroll, 1990a) with positive results. Some research studies have found correlations between the objective scores of the TOEFL and IELTS (Geranpayeh, 1994), but to the researchers' knowledge no such correlations have been done on the writing component of these tests. Recently, the TOEFL and TWE, known as TOEFL 2000, is being revised to be more performance based according to academic writing needs (Douglas, 1995).

There are a number of handbooks, guidebooks and teaching materials written specifically to help students with the test (e.g. Philips, 1996). In some countries, e.g. Taiwan and

Lebanon, there are specific classes purely to coach students for the test. The TWE scoring guide was not selected for the present research since a more analytic type of evaluation was needed which assigned scores to the different components of the writing construct such as content, organization, vocabulary, language and mechanics. This would then allow a correlation with the existing scheme (The LAU EFL Composition Criteria -LOC) for teacher evaluation.

b. The Writing Component of the the International English Language Testing Service Test (IELTS)

The IELTS writing scoring guide is also a holistic measure of foreign students' writing (often two sample texts) for entry purposes into universities in the UK and the Commonwealth. It consists of a 9 point scale: 1 represents no ability in language and 9 represents full operation command of the language (Weir, 1990; Garbutt and O'Sullivan, 1991). Again, materials have been published to assist prospective takers of the test (e.g. Garbutt and O'Sullivan, 1991) and in some countries special IELTS classes have been set up. This scoring procedure was not selected since it dealt with more than one writing assignment, uses the same band for all language skills (not only writing) and it does not assign part scores to the different aspects of writing.

Studies have been carried out on the TWE (Carlson et.al., 1985; Stansfield, 1986; Raimes, 1990; Pierce, 1991) and the IELTS (Criper and Davies, 1988; Alderson and North, 1991) scoring systems and results show that they both have strengths and shortcomings. Nevertheless, the studies indicate that it is possible to make the results more predictive of students' performance if the writing team is trained. The following adequately sums up the argument for the use of 'any' holistic measures or even other evaluation criteria.

> "In the final analysis, it is not the scoring guide that guarantees reliable
> scoring of TWE papers, but the nature of the training that the readers
> receive and the type of benchmark esays that serve as reference points
> for readers." (Pierce, 1991, p.161)

c. The Jacobs' et al. (1981) ESL Composition Profile

The Jacobs' ESL Composition Profile has been used widely in the USA with foreign students entering the universities. It is an analytic measure of students' writing skills divided into five components each with its own scale: content, organization, vocabulary, language and mechanics (see Appendix D). Benchmark compositions (or anchor papers), that are representive of the writing proficiency levels agreed upon by the raters, must be used along with the scoring scale. It has been tested for reliability and validity and has proved to be an

efficient instrument in ESL settings (Jacobs et.al., 1981, Hamp-Lyons,1990;1995). Hamp-Lyons (1990) comments that it is 'The best-known scoring procedure for ESL writing at the present time..' (p.78). It was selected as the scoring guide of the texts in the present research since it provided both a holistic and analytic assessment scale and was very close in make-up to the writing evaluation scoring procedure currently being used in the LAU EFL Program.

d. The LAU EFL Program Writing Evaluation Criteria

The EFL Program at LAU, Byblos has been using a scoring procedure (initially proposed by the present researcher) which is based on a combination of holistic and analytic scoring procedures comparable to the Jacobs' ESL Composition Profile. Analytically, the papers are scored on a scale of 1 - 5 (from 1, poor to 5, excellent) for language, organization and content which have detailed descriptors (referred to as *LOC*-see Appendix E). Although reliability and validity studies had not been carried out before the pilot study, positive inter- and intra-rater reliability correlation coefficients were obtained. Since this measure had proved to be an efficient evaluation measure, it was refined and used in the first stage of the essay analysis.

e. *The International Association for the Evaluation of Educational Achievement (IEA)*

The IEA study was founded in 1959 to compare direct writing performances of school children around the world. The evaluation of compositions began in 1988 (Purves, Gorman and Degenhart, 1988) and dealt with 14 countries. A scoring guide was devised for each of the writing genres of narration, exposition and argumentation. It included the following analytic categories of content, organization, lexical and grammatical features, style and tone, mechanics and handwriting on a scale of 1 to 5, 1 being the lowest grade and 5 the highest for each category. Although the study yielded some positive results, it concluded that it was difficult to evaluate compositions across culturally diverse groups. This scale was not considered due its specificity on criteria of style and tone that were not part of the study.

f. *Test in English for Educational Purposes (TEEP) Attribute Writing Scale*

(Weir, 1990) uses the categories of relevance and adequacy of content, compositional organization, cohesion, adequacy of vocabulary for purpose, grammar, mechanical accuracy in punctuation and spelling on a scale of 0 to 3, 0 being the least competence. Although Weir's (1990) research with this scoring guide helped in identifying the writing problems of students, the range of the scale was not adequate for the essay evaluation needed and the cohesion component was not specific enough for the present study.

g. Other Guidelines for Evaluation of Compositions

Several other evaluation procedures were also examined for possible use in the present study (e.g. Mullen,1980; Scarcella, 1984; Doushaq,1986; McAlpin, 1988). These procedures rated proficiency on scales from poor to excellent on categories of structure, organization, content, vocabulary, mechanics and handwriting Although appropriate for the contexts in which they were used, they were not considered since they tended to be specific to certain tasks.

h.   Guidelines for Cohesion Evaluation

Since the second stage of the essay analysis dealt with cohesion analysis and then a minor focus on coherence, relevant criteria were examined (e.g. Halliday and Hasan, 1976; Bamberg, 1983; Connor, 1984; Stalker and Stalker, 1988, Hoey, 1991a) (see Chapter Five).

All in all, essay assessment is a complex procedure, yet when certain considerations are attended to it can be very rewarding for both students and teachers. Hamp-Lyons (1990) calls for an integrated approach to writing assessment and for continuous improvement of procedures by applying what has been learned through the research.

V. Pedagogical Implications for the Present Study

Some implications from the foregoing are summarized below in Figure 3.7 according to an adaptation of Silva's (1990) model of the L2 writing context. It shows the interrelationships among the writer, text, reader, instruction, evaluation and context.

Figure 3.7   Model of the L2 Writing Context

CONTEXT

Writer ◄──────► Text ◄──────► Reader

Evaluation/Instruction
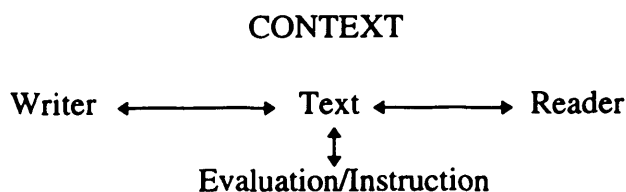
1. Academic writing is basically goal-directed for a particular audience fulfilling a particular rhetorical function in a given context.

2. Written texts draw upon the writer's knowledge (schemata) as well as knowledge of local structures and lexis to realize the global concerns of the text. The importance of academic models and relevant instruction is crucial.

3. Written products are authentic texts for learning and research purposes and teachers should be aware that instruction should take account of the language and background of the L2 learner in a more integrated approach of both process and product.

4. The relation between writing/thinking/learning is indispensable in the acquisition of skills and knowledge in an academic setting. As Olson (1996) points out 'My claim is not the more radical claim that words exist only in writing; rather, it is that writing is a primary means of bringing words into consciousness, turning them into objects of thought and reflection' (p.6).

5. Student and teacher awareness of the typical characteristics of the oral and written modes and theories of writing may enhance effective teaching/learning (Reid, 1993; Perera, 1988)

6. Learning the genres, structures and lexis related to tasks relevant to the academic community is crucial in the successful development of students' writing.

7. Valid and reliable means of assessing students' progress are crucial in the learning process.

It is obvious that the written mode of discourse must be taught. It cannot be left up to the student entirely at any level, especially at university, to acquire it. Ways, therefore, must be found to help. Bereiter and Scardamalia (1983) comment:

"...we must find ways to foster movement onto the high road that
do not [necessarily] require teachers who are already there themselves." (p.33)

The present research is hopefully a contribution in that direction. Since the text is the focal point of the present research to find ways to develop students' writing proficiency, an account of the findings from written text analysis research is given in the following chapter.

CHAPTER FOUR

TEXT ANALYSIS

"Work is love made visible."
Gibran, The Prophet

The aim of this chapter is to review relevant work in text analysis for insights into the nature of texts and to obtain an understanding of the function of the linguistic feature, cohesion, central to the present research (see Chapter Five).

Text analysis as a field of inquiry was developed in the 1970's with the aim of examining texts to gain an understanding of how they are produced and comprehended giving useful insights for composition instruction and evaluation (see de Beaugrande & Dressler, 1981; Cooper and Greenbaum, 1986; Carrel, 1987; Connor and Kaplan, 1987; Enkvist, 1987; Grabe and Kaplan, 1996, Donnelly, 1994; Kress, 1994, van Dijk, 1997a,b, among others). Definitions of 'text' have varied, but most linguists since Halliday and Hasan's (1976) seminal work in cohesion agree that 'A text is a unit of language in use' (ibid., p.1) and can be both spoken and written communication that extends beyond a sentence. Grabe and Kaplan (1996) offer a simple definition:

'A text occurs when the discourse segment is identified as possible, feasible, appropriate, and performed, and has a topic.' (p.40)

De Beaugrande and Dressler (1981) argue that a text should fulfill seven standards: cohesiveness, coherence, intentionality of producer, intentionality of receiver, informativity, situationality and intertextuality, i.e. a text written coherently in a context for a reader. They argue that if these seven standards are not fulfilled then the text is not a text.

Although the term *text* has been used to refer to units of language without considerations of context, and *discourse* to refer to the text in its context (Enkvist, 1984 in Grabe and Kaplan, 1996), the two terms will be used interchangeably in the present study to mean text in its context.

Most linguists note that to communicate information texts must be structured according to '...accepted linguistic, psychological, and sociological principles...' such as the '1) Gricean maxims (1975), the need to be informative, factually correct, relevant, and clear..., 2) conventions for conveying status, situation, intent and attitude, 3) mechanisms for indicating newness of information, rate of information flow, and probability of information, and 4)

predictability of cognitive structures which anticipate larger patterns of organization: schemata, scripts, frames, goals etc' (Grabe and Kaplan, 1996, p.41). Linguists further note that the structure of texts is composed of a hierarchical order of communicative units, beginning with propositions (semantic units) leading to the paragraph which combines with the textual and extra-textual organizational factors to create discourse according to rhetorical and genre expectations. Thus, text is made up of both micro and macro structures, the former being words, phrases, clauses, connectors etc. and the latter more global concerns of topic controlling sentences, paragraphing and overall rhetorical organization types such as problem-solution, cause-effect, etc. (Kintsch, 1974; van Dijk and Kintsch, 1983; Crombie, 1985; van Dijk 1985; Hamdan, 1988; Coulthard, 1994a, van Dijk, 1997a,b). In this description of text communication, the present study can be seen as related to the micro-level linguisitic principles of clarity (specifically those of lexical cohesion) and to the macro organization of the text (specifically in the rhetorical type of cause-effect).

Hudson (1980 in Grabe and Kaplan, 1996) comments on this multi-dimensional nature of text (italics are the researchers'):

'The most obvious fact about discourse structure is that *many different kinds of structure* run through discourse, and any attempt to reduce them to a single type is bound to fail.' (p.40)

Some of these *'many different kinds of structure'* are linguistic patternings and semantic relations that involve the internal cohesion of texts (micro-structure), and more macro-structures of coherence, the development of thematic material, paragraphing, paraphrase and restatement. It is through an analysis of these linguistic patternings and semantic relations in the production and comprehension of texts specifically as they relate to cohesion in high and low rated student texts in the present study that students may be helped to write clearer and better organized texts.

A review of some descriptions of texts related to the present study is given below according to: 1) text structure and organization, 2) text processing 3) text production and context, 4) text types and 5) text in a theory of language. Some work, however, may often overlap in these areas. Cohesion, a specific feature of text, is discussed in Chapter Five.

I. Structure and Organization of Written Texts

This section reviews work according to Grabe and Kaplan's (1996) three categories 1) syntactic analysis, 2) corpus research, and 3) functional sentence perspective: informational structure analysis.

A. Syntactic Analysis

In the 1950's and 1960's, influenced by transformational grammar principles, researchers argued that syntactic features of texts indicated development in students' writing. Studies (Hunt, 1970, 1977; Maimon and Nodine, 1978; Flahive and Snow, 1980; Kameen, 1983; Bernhardt, 1986; Hillocks, 1986) were based on Hunt's definition of the T-unit (terminal unit - defined '..as a main clause and all dependent modifying clauses.') (Hunt, 1970, p.43) and attempted to show that maturity in writing across age and grade levels contained more complex and longer T-units. While some of the findings indicated that students' writing improved as a result of work at the sentence level, these studies did not account for the ambiguity between the fact that though a student's writing could be quite good at the sentence level, it was not necessarily so when maturity in overall writing quality at the discourse level was considered (Koch, 1983; Al-Jubouri, 1984; Kharma and Hajjaj, 1989; Sa'Addedin and Akram, 1991; Winter, 1994; Grabe and Kaplan, 1996).

B. Corpus Research

Corpus research involves analysing larger quantities of text in different genres in an effort to identify the common structures in each (Aijmer and Altenberg, 1991; Stubbs, 1996). Biber (1988) analyzed a wide variety of written (and spoken) texts and argued for six types of surface linguistic variations termed dimensions. For example, the fourth dimension, 'Overt Expression of Persuasion', consists of necessity modals (e.g. must, should), prediction modals (e.g. will, shall), suasive verbs (e.g. agree, arrange, propose..) infinitives (e.g. to change the rule), and markers of conditional subordination (e.g. if..., unless...) which taken all together define a particular text variation. Biber (1988) also found differences between American and British written text genres; the former were more colloquial and jargony than the latter suggesting the 'influence of grammatical and stylistic prescriptions in British writing and editing' (p.201). In academic prose, Biber found further differences among the different text genres (ibid., p.198) and points out:

> 'Some previous analyses note that compositions from different genres must
> be studied separately; that is, since the linguistic characteristics of narrative,
> exposition, argumentation, and description are all different, the composition
> tasks used in any particular study must be considered when evaluating the
> results and conclusions' (ibid., p.203).

Grabe and Kaplan (1987 in Grabe,1996) replicated Biber's work on varieties of expository prose to gain an understanding of the text itself and identified four dimensions:1) non-narrative versus narrative context, 2) interactional versus informational orientation, 3) abstract/logical

versus situation information and 4) objective versus expressive style. An important finding was that student text types could be identified in ways other than simple counts of individual surface features and then correlating them with writing quality (ibid., p.48). The authors further report on a text analysis carried out on Freshman final exam essays that the essays were comparable to the Humanities' academic prose on three of Biber's (1988) dimensions and thus in part were following genre expectations of the academic community (ibid., p.48).

McCarthy (1991) mentions the usefulness of corpora information in text studies. '...the existence of huge computerised corpora of written material such as the over 200 million word Birmingham Collection of EnglishText (the basis of the Collins COBUILD dictionary project) and corpus-building over the years has led to an interest in detailed taxonomies of textual types. (p.148). Sinclair (1994), Editor-in-Chief of Cobuild Publications, argues for a re-examination of research methods to exploit the large amount of data now available and to focus more on larger stretches of discourse in the various fields reexamining traditional classifications. Francis (1994), using Cobuild corpora data, shows how a cohesive device called labelling common in the press and argument connects the discourse across clause boundaries by retrospective labels (pointing backward, e.g. *this problem*) and advance labelling (pointing forward, e.g. *three reasons*). Labelling, it is argued has an important organizational function which may differ according to the genre.

The significance of this type of research is that text structure is viewed as related to and influenced by genre. Current research should take this into account.

C. Functional Sentence Perspective: Informational Structure Analysis

This type of text analysis focused on a more discoursal level rather than that at the sentence level and took into account the relationship between the structure of the text and its communicative function (Grabe and Kaplan, 1996). Thus, text was viewed as structuring information in different ways depending upon who the reader might be. This information structuring is referred to as a) given-new, b) topic-comment, c) theme-rheme all dealing with the first introduction of information in the clause and developing the topic by newly added material (Bernhardt, 1986; Brandt, 1986; Christie, 1986; Hoey, 1986; Hult, 1986; Peters, 1986; Lautamatii, 1987; Halliday & Hasan, 1989; Eggins, 1994; Halliday 1994; Brazil, 1985 in Coulthard, 1994a; Coulthard, 1994b; Fries, 1994; Bloor and Bloor, 1995).

II. Text Processing

A second major concern of text analysis is text processing, referring mainly to the interaction between writer/reader in how the writer gets the message across using surface

features and how the reader decodes the message (Hinds, 1987; Coirier, 1991; Klein, 1991; Emmott, 1994; Johns, 1994; Shiro, 1994). Four major factors that help readers to process texts are outlined below.

A. Studies in *psycholinguistic* factors have shown that readers bring to the reading situation a 'knowledge of the world' stored and operated in cognition as 'schemata'. Such knowledge is drawn upon in reading texts which may help or hinder (de Beaugrande, 1981; Johns, 1994; Shiro, 1994). Coirier (1991) also showed that there were important factors that the reader brings to the text, such as 'knowledge of the topic being dealt with, typological representations (schemas, superstructures,..), as well as personal involvement, opinion, interest'(p.364). Thus, texts are viewed as being organized according to accepted conventions which readers must have the appropriate schemata to understand. This is particularly significant when one considers students' need to have relevant academic schemata in processing L2 texts at the university and in producing them in writing.

B. Studies in the *macro-structure* features point out that titles, general statements, organizational moves, and clausal relationships all help readers to process texts (Hoey, 1983, 1994; Dudley-Evans, 1994; Hunston, 1994; Meyers, 1994; Winter, 1994).

C. Other studies indicate the importance of the *micro-level* in structural and lexical cohesive devices in helping the reader process text (Hoey, 1983, 1991a,b; Peters, 1986; 1991a; McCarthy, 1994; Tadros, 1994).

D. An additional important factor is the *context* of the text in time and place referred to as the 'context of situation' (Halliday and Hasan, 1976, 1989) which helps the reader to process text if this context is known or understood from the text. (see Section III below).

III. Text Production and Context

The third focus of text analysis into the structure of texts concerns the interrelationships between the writer, reader and the context in the production and comprehension of the text (Brown and Yule, 1983; Couture, 1986; Halliday and Hasan 1989; Coirer, 1991; Coulthard, 1994a;). The research in this area followed the tradition of the London School of Lingustics as reinterpreted in the systemic linguistics of Michael Halliday and his followers. It challenged investigations of language in isolation, emphasizing that the meaning in text is dependent on the 'context of situation', a concept promulgated by Malinowski (1923, 1935 in Halliday and Hasan, 1989) and referring to the immediate textual (or co-text) and extra-textual context in which an utterance is performed. Halliday and Hasan (1989) describe three parts of context of situation which interact to create a coherent text:1) the field of discourse, 2) the mode of

discourse and 3) the tenor of discourse (see Chapter Five). Coulthard (1994b) comments on the interrelation between writer, reader and context in the study or evaluation of texts:

'Ultimately a text is a string of words and a writer has to encode the ideational meaning into, and the reader to decode that meaning from, words. Problems arise because word meanings are not fully fixed; rather, words derive some of their meaning from the context in which they appear' (p.9).

Thus, it seems imperative that any textual analyst must be aware of the inter-relations between the writer, the reader in a context as well as the textual factors at both the micro and macro levels. The influence of the writing theories is apparent.

IV. Text Types

The fourth concern of text linguists is to identify types of texts and describe their related structure. Hamdan (1988) divides research into text types into two groups which he points out are interrelated. The first group (e.g. Longacre, 1978 and 1983, Frawley & Smith, 1983, Smith, 1985, Malcolm, 1987 in Hamdan, 1988; and recently Coulthard, 1994b; Francis, 1994, Hoey, 1991a, b, among others) deals with more quantitative statistical studies at the local level and the second group (e.g. Hutchins, 1977, van Dijk, 1980, Stratman, 1982, Kopperschmidt, 1985, Mosenthal, 1985, Randquist, 1985 in Hamdan, 1988 and work in Coulhard, 1994a) deals with more macro-level related research. Both groups agree, as Hamdan points out, with the cognitivists (e.g. van Dijk, 1977; Kintsch and van Dijk, 1978; Rumelhart, 1981; Meyer, 1982; Randquist, 1985; Giora, 1985 in Hamdan, 1988) that "information in each text type can be structured according to a schema which functions as 'information organizer' in text production and reception.'(ibid., p.89). Thus, since there are conventions that text structures comply with to be communicative, the writers' creativity is limited to only "their ability to organize their ideas and arguments within the frame of the text type they are writing" (ibid., p.90). The present research overlaps between the two groups.

Since the focus is on the expository essay, this will be the text type reviewed below with reference to other types for comparative purposes. This section concludes with a review on studies on expository texts.

A. Expository Texts

This section reviews some work into 1) the structure of expository texts and 2) an account of the 'parts' of expository texts.

1. Structure of Expository Texts

The increasing use of expository texts for exams in academic settings across disciplines has led researchers to give it serious attention in recent years (McCarthy, 1991; Jordan, 1989; Johnson, 1982). The study of expository texts has also been diverse as Fox (1993) points out.

'The structure of expository prose has captured the interest of a wide range of disciplines, including **rhetoric** (Dillon 1981; Young et al. 1970; D'Angelo 1975; Winterowd 1975), **cognitive psychology** (...), **artificial intelligence** (Grosz and Sidner,1986) and **linguistics** (Hinds 1979; Grimes 1975; Kamp 1981).' (p.77) (bold type are the researchers)

Generally, the function of expository texts is viewed as '...mainly for giving specific information... that '..needs succinct language and an orderly marshalling of salient points ... clear and systematic thinking' (Tomori, 1971, p.142). Mosenthal (1985) defines exposition as:

'..the process of comprehending and conveying information in the form of written representation for the purpose of updating one's knowledge about some phenomenon.' (p.389)

In contrast with the rhetorical genre analysis approach to text analysis (see Chapter Two) that begins with an overall template, some linguists focused on characterizing texts to find relations between the parts and the whole (Hatch, 1992). Studies show expository texts include different rhetorical types: definition, comparison and contrast, description, cause-effect etc. each with linguistic and cohesive features which need to be considered in instruction and evaluation (Mosenthal, 1985; Couture, 1986; Grabe, 1987; Emmott, 1994, Meyers, 1994, among others). In a sense, both these approaches can be seen in relation to Cook's (1989) top-down/bottom-up view of teaching/learning language, the rhetorical genre analysis being more of a top-down approach and the rhetorical structure analysis a more bottom-up approach (see section VI. below). The present research can be viewed as an overlap between the two approaches to text analysis, looking at the whole text genre as well as the cohesive features that help realize the overall structure. Some linguists' descriptions of text from a more rhetorical structure perspective are given below.

Hamdan, 1988 cites studies (Frawley and Smith, 1983; Longacre, 1983; Smith, 1985) which analyzed the different linguistic features of narrative, expository and procedural text types. The studies concluded that different text types show different micro-level linguistic features (Frawley and Smith, 1983); expository clauses showed less of an emphasis on past tense forms of the verbs with more frequent passive forms without an agent (Smith, 1985); an expository text may include embeddings of other rhetorical types (Longacre, 1983).

Mosenthal's (1985) extensive study on the structure of expository texts proposed a taxonomy of six expository text types (records, reports (general and specific), classifications (general and specific), speculatives and theoreticals) which may help both researchers and practitioners in the teaching/learning of the writing skill since it is at the secondary and college levels that expository texts are mostly used (p.388-389). The taxonomy includes a 'specification hierarchy': 'an ordered set of propositions' with respect to the 'topical organization'. He defines 'propositions' as 'idea units, with each proposition representing a single idea ...and each idea unit composed of two parts: arguments and predicates ('predicates are normally defined as consisting of verbs, adjectives, and adverbs between a set of arguments typically consisting of nouns, pronouns, and gerunds'). Because one or more propositions may be combined to form an argument of another proposition, propositions may consist of words, phrases, sentences, even paragraphs. The effects of combining smaller propositions into larger propositions produce different types of specification hierarchies (ibid., pp.392-393).

He cites research that identifies three differences between exposition and narration in structure, content and purpose (Goetz and Armbruster 1980; Kintsch and Young, 1984, Meyer and Rice 1984 in Mosenthal, 1985). He mentions that 'the *structure* of expository text tends to be thematic, consisting of superordinate and subordinate information (de Beaugrande 1980, Kintsch and van Dijk 1978, Meyer 1984)....The *content* of expository text tends to be definitions or descriptions of events and states in time and space. The *purpose* of expository text is to update a person's knowledge about some event or state in space and time (Brewer 1980; de Beaugrande 1984; Spiro 1980)' (ibid., p.388) whereas narrative texts are more episodical in structure, protagonist oriented in content, and social in purpose (ibid., p.387).

Mosenthals taxonomy is briefly described below. Each type has a different purpose and as one moves from type 1 to type 6 the text becomes more abstract.

Type 1: Situation-specific records: These describe 'phenomena' (object, action etc..) existing in space and time, which are described using the present tense with a linear (rather than hierarchial) proposition structure, the most dominant relationship being 'temporal' and 'and'.

Example: This elephant is large in size. It has a trunk... It has a .. (ibid., p.401)

Type 2: Generalized records: These describe habitual characteristics and include definition and clarification.

Example: Elephants. Elephants are characterized by massive size; strength. (ibid., p.401)

Type 3: 'Loose' classification: This describes content organized into two propositional relationships of 'comparison' and 'contrast'; higher categories are broader topics for the lower level categroies.

Example: 'There are two types of elephants; grass eaters and fruit eaters.
The grass eaters differ from fruit eaters in terms of their physical
appearance ...Grass eaters like to sleep while lying down:..Fruit
eaters sleep... (ibid., p.402)

Type 4: Strong classification: This also places content into categories of propositional relationships, but into 'cause' and 'condition'; lower level propositions are 'explanation' and evidence'. 'Strong' classifications relate cause and effect categories.

Example: 'Differences in elephants' physical appearance are related to
their behaviour; their behavior, in turn, is related to where
they come from. As Leu (1979) has observed, Indian elephants
live where there are grassy plains and few predators; African
elephants live where there are many fruit trees and many predators.
Because grass is less nutritious than fruit and because the lack
of predators have not produced an evolutionary need for larger
size (Conley 1983), Indian elephants tend to be smaller than
African elephants. ...' (ibid., p.403)

Type 5: Speculatives: These describe 'adversative' relationships in which evidence is given in support of a cause-effect relationship and then new evidence is presented to support a contrasting hypothesis.

Example: 'Nutrition experts (e.g. Bats 1979) have argued that the most
important cause of a species size is diet. In contrast, heredity
experts (e.g. Phoodbod 1965) have shown that heredity is the
most important cause of size. However, recent studies
(Phant 1984) suggest that it is a combination of these factors.
Hence, one might hypothesize that diet and specie type both
determine an elephant's size.' (ibid., p.404)

Type 6: Theoreticals: These describe two basic categories: the 'speculative text' and the 'operational' similar to a procedural description of researchers when they posit hypotheses on a topic and then describe testing methods.

Mosenthal's (1985) specification hierarchies are based on both macro structures (topics in titles and sentences which determine the development of the micro-structures) and micro structures (topic development details in propositions that support the macro structure). In effect this relationship between the micro and macro structures can be suggestive of creating textual coherence. (Hamdan, 1988, p.105). Mosenthal's description is different from that of the Australian systemic view of texts. The latter argues for a more global type of structure

related to its social function, (academic function in the present research), and the purpose of the task, e.g. research papers, essays etc. In this view, sentences, clauses and linguistic and cohesive signals are analyzed in whole texts in realizing their function. Teaching/learning of each type of genre is in three stages: modelling, joint negotiation of text, and independent construction of text (Cope and Kalantzis, 1993) (see Chapter Two).

In another attempt at describing the structure of expository texts, Fox (1993) argues that the underlying rhetorical structures

'...are not merely strings of clauses but are instead groups of hierarchically organized clauses which bear various informational and interactional relations to one another (Mandler and Johnson 1977; Dillon 1981; Meyer and Rice 1982; van Dijk an Kintsch 1983). The model thus has in its apparatus a basic unit - the proposition - and a class of text structures which describe the structures which the propositions display.' (ibid., p.78)

Fox (1993) claims that expository texts have different rhetorical structures: issue, list, narrate, reason, circumstance, conditional, response, purpose, opposition, concession, contrast, the first three being the higher level structures (ibid., pp.78-90). She claims that these rhetorical structures are organized in different ways in propositions which she defines as ' ... more abstract than a clause or sentence, and ... intended to represent the smallest unit that enter[s] into informational and/or interactional relationships with other parts of the text...in organizing text based on discoursal principles rather than grammatical as clauses are (ibid., p.78). The *reason rhetorical structure (R-structure)*, important for the present study, occurs at lower levels of the text and is often realized directly by terminal nodes (propositions) relating to a nucleus which makes a statement about something and an adjunct which provides the reason for that statement (ibid., p.82). An example is given below.

1) Last year the Irish government boycotted the celebration
2) because the grand marshal was IRA fundraiser Michael Flannery.
   (People, March 19, 1984)

Diagramed as   Reason
|
| Reason
(1)   (2)   (ibid., p.82)

Fox's rhetorical structures are comparable to those of Mann and Thompson's (1987 in Hatch, 1992) 'rhetorical structure theory'(RST), who claim that there are different types of relationships between units (or clauses) of the text (the nucleus N and the satellite S) which the writer chooses (with a reader in mind) to achieve goals. The final purpose is to produce a

whole form or text. Some of these relationships include causal, conditional, interpretation and evaluation, restatement and summary.

Fox (1993) also analyzes the distribution of anaphora among the different rhetorical structures in the texts (pronouns and full-noun phrases that point backward in text and connect with earlier items in and among the different rhetorical units, termed a *return pop in written texts* in authentic non-academic written texts. She notes that anaphoric patterning is also genre specific and together with rhetorical structures is important for the clarity of texts.

Another study carried out by Tadros (1994) on the discourse structure of expository texts (specifically a textbook of economics) demonstrated the interaction between writer and reader in the use of six predictive categories. She defines prediction as signals which she groups under six categories: enumeration, advance labelling, reporting, recapitulation, hypotheticality, and question. They are overtly mentioned in the text to direct the reader (e.g. *two problems, the major aim, this report will discuss* etc.). Each of these categories consists of a pair, the first, predictive, member (symbol V), signals the prediction which has to be fulfilled by the second, predicted, member (symbol D)' (ibid., p.70). The value for academic writing is in training students to use such signals to organize their work. Although Mann and Thompson (1987 in Hatch, 1992) do not find it necessary to have linguistic markers to show explicitly the relationships between nucleus and satellite units, they do mention that connectors like 'however' and 'therefore' help to clarify discourse functions. The importance for students to be aware of signalling relationships in their texts (particularly in light of studies such as Johns (1979) that show the problems in non-native texts) cannot be taken lightly especially in an academic context.

Peters (1986) claims there is a particular difficulty in describing the structure of expository texts, specifically academic compositions since they are diverse. She describes the attempts of some linguists such as van Dijk (1980), who assumes that the proposition constitutes the highest level macrostructure in expository texts and that supporting units or arguments are lower-level macrostructures, and Hoey's (1979) claim for the emphasis of the problem-solution structure in expository texts (p.171). Peters claims that expository texts have both macro and micro structures which vary with the type of text and argues for the importance of textual features such as cohesion in the assessment of texts.

> "Apart from indications of macrostructure, readers expect from an academic text
> sufficienct microstructural details to supply cohesion and to show the logical
> connections between one statement and another". (ibid., p.170)

The analysis of the structure of expository prose suggests that any research carried out should take into consideration the type of text under consideration and the related linguistic features for the interpretation of the results to be valid. This is specifically relevant in evaluating written products. Some research has shown that students perform differently in different discourse text types (Reid, 1993; Kroll, 1990; Quellmalz et al. (1982). Quellmalz et al. (1982) argue that generalizations about student writing competence must reference the particular discourse domain rather than the 'general domain of writing' (p.256).

2. Parts of the Expository Text

Two controversial issues related to expository texts are what constitutes a *sentence* and a *paragraph*. Since the present study focuses on the analysis of lexical cohesion over sentences and paragraphs, a review of how they have been viewed in the literature is discussed in this section. The discussion may focus at times on both the sentence and the paragraph.

a. The Sentence

There are multiple views held by linguists as to what constitutes a sentence in the written mode (Milic,1969; Stern,1976; Hunt, 1977; Akinnaso, 1982; Halliday and Hasan, 1976; Hoey, 1991a, among others). Although Hunt's (1977) notion of the T-unit (see section I. A. in this chapter) influenced quite a lot of early research, it was Christensen's (1967) work on the sentence and paragraph that formed the basis for much later work at the sentence level and paragraph level. Donnelly (1994) in summarizing Christensen's work in rhetoric shows that it is similar to the given-new contract focusing on local 'coherence' rather on more global features of the text. The addition of information is viewed as linear (and between adjacent sentences) and sentences are of two main types: coordinating (that link similar ideas) and subordinating (that expand or examine ideas). For Christensen, 'the more sentences a writer adds to a paragraph, the more the idea is developed and the greater the "texture" or "depth" of thought exhibited in the paragraph' (Donnelly, 1994, p.81). The general pattern of the paragraph or text is from general to specific with topic sentences beginning the paragraph in most cases (implied or explicit). The implications of this view are far reaching as is confirmed in the many rhetoric books that emphasize the general to specific pattern (see also Coulthard, 1994b) in paragraphs and the detailed instructions to students on how to write well constructed paragraphs. Milic (1969) argues for a similar view of the sentence and divides them into types: initial, additive, adversative, alternative, explanatory, illustrative, illative, and causal (p.21). However, what these views do not take into account is the global features of texts and the relationship between sentences that are not adjacent in a text.

Others extended the notion of the traditional sentence to a more discoursal level (McCarthy, 1991; Hoey, 1991a, Tadros, 1994, among others). McCarthy (1991) argues that the traditional view of sentence as an orthographical unit is significant only in showing how important discoursal features such as cohesion are as they extend beyond the boundaries of the sentences. Tadros (1994) defines the sentence functionally to fit in with his predictive categories. '...it is necessary to extend the notion of sentence to include not only what is traditionally conceived of as a sentence boundary, but also other stops not traditionally regarded as terminal signals - the dash and the colon - since these latter can be taken as sentential terminal signals when they separate a V from a D member (see section IV.A.1. above). The reason for extending the traditional notion is that the dash and the colon are capable of marking major discourse patterns' (p.70).

Kress (1994) points out that the 'sentence belongs to writing, forming there the basic unit of textual structures...typically..a structure of main and subordinated embedded clauses...each sentence is a construct with an internal structure which marks the thematic element of each sentence from the non-thematic [theme/rheme]. The treatment and development of topical material within the sentence is hierarchcal and integrative' (p.8).

Hoey (1991a) also views the sentence as orthographical in the analysis of lexical cohesion; however, he points out that the sentence could be considered as part grammatical and part textual.

> 'In so far as cohesion occurs across clause boundaries, it reveals the sentence to
> be a textual category; in so far as there are restrictions on the ways one may repeat
> within a sentence (see, for example, Lowe 1969) the sentence is shown to be a
> grammatical category' (p.216).

Although most agree that the sentence is an orthographical unit and that the internal structure is the domain of 'grammar', it is also being viewed in textual analysis research as containing linguistic features that extend beyond its boundaries and beyond adjacent sentences over longer stretches of discourse.

b. The Paragraph

The teaching of the composition has focused on the overall organization of texts stressing the different functions of the paragraphs: introductory, body, and concluding paragraphs each with topic sentences. Bain (1866 in Stern, 1976, p.254) was the first to postulate a theory of the paragraph which views "the paragaraph as a deductive system, a collection of sentences animated by unity of purpose, a purpose announced in an opening topic statement and developed through a logically ordered sequence of statements that 'iterate or illustrate the

same idea'." Martin (1969 in Stern, 1976) supports Bain's view of the paragraph and defines it as follows:

'Typographcally, a paragraph is simply several lines of type, the first of which usually begins some distance to the right of the margin. Logically, it is a coordination of related assertions. Rhetorically, it is a series of sentences ordered as to achieve a single major effect'. (p.210)

However, there does seem to be the beginnings of some doubt as to the traditional role of the 'topic sentence' according to Martin.

'The topic sentence (or thesis statement, as it is sometimes called) is a more or less a fictitious entity. It does sometimes make an appearance in so many words, of course, but fully as often, it is not something a writer has in mind as the unity he wants to achieve' (ibid., 1969, p.211).

Rodgers (1965 in Stern, 1976, p.254) noted the great influence of this theory on 20th century rhetoric and textbooks on composition. Christensen (1966, in Stern, 1976, p.255) supports Bain's theory and concludes that 'the paragraph may be defined as a sequence of structually related sentences' with 'the topic sentence of the sequence ...the topic sentence...nearly always the first sentence in the sequence'. Becker (1966, in Stern, 1976, p.256) goes further to identify two major types of expository paragraphs: Topic-Restriction-Illustration and Problem-Solution patterns.

Some researchers, (Roberts, 1958, Rodgers, 1966, Braddock, 1974 in Stern, 1976; Kaplan, 1983); however, challenge these views and indicate that this is an artificial way of dividing written discourse, which in fact does not appear in professional writing. Stern (1976) recommends a more discoursal approach to teaching writing rather than worrying about orthographical indentations and beginning paragraphs with topic sentences. He concludes,

"In sum, today's paragraph is not a logical unit ...it does not necessarily begin with a topic sentence; it does not necessarily 'handle and exhaust a distinct topic,' as the textbooks say it must do. It is not a composition-in minature, either...the paragraph is a flexibile, expressive rhetorical instrument...Let us...make our teaching discourse-centered..If the whole does indeed determine the parts, their paragraphs should improve as their essay molds them into form'. (p.257)

Concerning the different types of development of cause-effect, definition, comparison and contrast etc. that many textbooks and syllabi emphasize, Weissberg (1984) found when a sample of 60 authentic pieces of scientific paragraphs were analyzed according to a model of given/new information that a 'relatively large portion of paragraphs (over 21) ..were developed through a mixture of patterns' and cautions ESL teachers not to insist on one type

(p.495). It is pointed out however, 'This is not to say that authentic paragaraphs do not follow systematic patterns of develoment, but rather that as composition teachers we may simply have been describing and teaching the wrong kinds' (p.486).

The traditional view of the paragraph is not of significance in the present study except to confirm the traditional three part organization of introduction, body and conclusion in the essays written by the students and to see how the lexical cohesive patterns over text determined the position of the topic controlling sentences over the paragraphs. Although topic opening and closing sentences appeared in initial and closing positions in the paragraphs of the student texts analyzed, there were also other places in the paragraphs where they appeared. This confirms Hoey's (1991a) view of the significance of viewing sentences and paragraphs at the discoursal level (see Chapter Seven).

B. Argumentative Text

Another text type which researchers have shown to indicate different micro and macro features and syntactic and cohesive features different from those in expository texts is argumentation (Toulmin, 1958; van Dijk; Stratman, 1982; Hatim, 1985; Kopperschmidt, 1985; Sakr, 1985 in Hamdan, 1988; Connor, 1987a; Connor and Lauer, 1985; Hayes, 1990; Mayberry and Golden, 1990; Hamp-Lyons and Henning, 1991, among others). However, the findings show that exemplification, cause-effect relations, comparison-contrast sub-texts and connectives are used in persuading. This is significant in that the cause-effect rhetorical mode analyzed in the present study could be considered a pre-requisite for the argumentative texts which the students at LAU need to produce in later English courses. Related to this, De Beaugrande (1980 in Hamdan, 1988, p. 107) defines argumentative texts as 'conceptual expository + evaluative'.

Basically, the structure of the macro-structure in contrast to the expository has been described in ways similar to that of Toulmin's (1958 in Hamdan, 1988) structure: claim (the central proposition), the data (the evidence which can be data as examples, figures, cause-effect information etc.) and the warrants (the information that logically takes the data to the conclusion). Many textbooks include argumentation as a rhetorical structure that is taught in university English programs, usually after expository writing has been dealt with (e.g. Tibbetts and Tibbetts,1991; Sorenson, 1988; Kane and Peters, 1980).

C. Studies on Expository Texts

There has been much research into the expository text and the lexical and cohesive features present that could help student writers produce better quality coherence in texts (e.g. Christie,

1986; Harnett, 1986; Hult, 1986; Hoey and Winter, 1986; Coulthard, 1994a). More specifically related to the present study is work done on comparing the texts written by skilled and unskilled writers (Perl, 1974; Zamel, 1983; Raimes, 1985, 1987; Scarcella, 1984; Hall, 1991; Silva,1993, among others). The main findings indicate that skilled writers have a greater sense of audience in using linguistic devices to orient their readers. They stress discoursal elements more and mechanics less. Another main finding was that non-native writers' texts were in general of lower proficiency levels with problems that necessitated different types of attention when compared to those written by native writers. (see Chapter Three).

Based on such research findings, many textbook writers identify different types of expository writing and give instructions to students on how to write them (e.g. Sorenson, 1988). Typically, these instructions consist of descriptions of the rhetorical mode. They give model texts, lists of related cohesive and transitional devices and exercises at sentence and text level and, recently, exercises related to tasks across the curriculum (e.g.Swales and Feak, 1994). This is also the case with the textbooks used in the Freshman I course at LAU (Oshima and Hogue, 1991; Langan, 1991). These explanations might serve the author's purpose; however, it is clear that they need to be supplemented with a discoursal dimension of applicability (see Chapter 12).

V. Text in a Theory of Language

Since the present research focuses on the text or the written product, it is significant to show its relative place in a theory of language. Hoey (1991a) forms his theory of language and the place of text in it, by redrawing Halliday and Hasan's (1961 in Hoey, 1991a) map in Figure 4.1 to include text and organization at the discoursal level of language. Although Halliday and Hasan's (1961) map has since been revised (see Chapter Five, II.B), the 1961 version is given below to show the full extent of the developments in Hoey's theory over thirty years.

Hoey (1991a) explains that Halliday and Hasan's (1961) map of language focused on the components as being basically structural, the realization of which depends upon the context. Hoey sees the necessity, in view of developments in the field, to note that there are elements in language that are non-structural such as text and lexis

Figure 4.1 Halliday and Hasan's (1961) Map of Language

Situation (extra-textual features)

Linguistics

Context

FORM   grammar; lexis

phonology orthography

Phonetics   SUBSTANCE   phonic   graphic
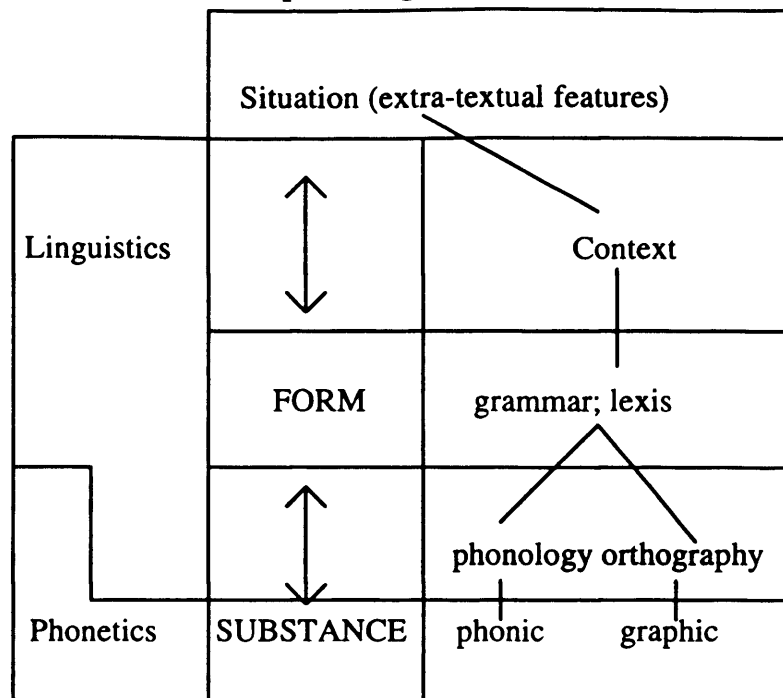
In revising the map of language as in Figure 4.2 below, Hoey views lexis and text as non-structural organizational components indicated by circles (Figure 4.2). Hoey argues that since text cannot be predicted, it is therefore a non-structural element. He views text on an organizational level and sees the need to fit it in a theory of language.

Figure 4.2 Hoey's (1991a, p. 208) Map of Language

SITUATION   extra-textual features

interaction

text

FORM   syntax

lexis

phonology

SUBSTANCE   phonic substance
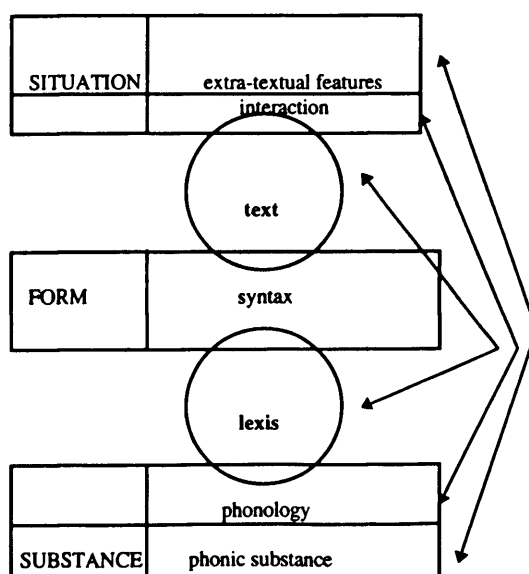
As the Figure 4.2 indicates, lexis and text mediate between and overlap with syntax and phonology and are realized in either speech or writing through the interaction level. It is clear that they are both on the same level of importance in regard to language. The map shows the triple structure of language: phonology, syntax and interaction and the arrows in the map indicate the relations. A claim that Hoey's (1991a) work makes on the nature of non-narrative texts is that '...bonding accurately identifies related pairs of sentences in a text, and the net they combine to create accurately reflects the organization of the text.' (p.193). The implication of Hoey's (1991a) theory of language, is therefore, that text and lexis are interrelated: 'But it is not only the case that text is lexically signalled it is also the case that lexis is textually established' (p. 220). Thus, Hoey points out the importance of investigating '...how lexical cohesion and text organization affect each other' (ibid., p.220) to which the present study also hopes to contribute.

VI. Implications for the Teaching/Learning of Writing

Findings of text analysis research have influenced the teaching/learning of writing in the English classroom. Paralleling the rhetorical genre and rhetorical structural analyses, recent research has argued that there is more effective learning of the writing skill if viewed from a communicative interactive point of view in a 'top down' rather than a 'bottom up' approach (Carell, 1987;Cook, 1989). This approach basically claims that more effective learning takes place when the global aspects of discourse are focused on first and then the local aspects second. An example of the local or atomistic approach to learning the language would be the earlier emphasis on teaching the grammar, spelling, pronunciation in isolation of the text and context. A more top down or holistic approach would be the teaching/learning of their functions in a communicative context. However, most agree to an overlap of both approaches in L2 writing. Figure 4.3 summarizes the two approaches:

Figure 4.3 'Top Down', 'Bottom Up' Instructional Approaches (Cook, 1989, p.80)

```
  ↑    Discourse Factors           Top down
  |    Social relationships          |
  |    Shared knowledge              |
  |      Discourse type              |
  |    Discourse structure           |
  |    Discourse function            |
  |    Conversational mechanisms     |
  |        Cohesion                  |
  |    (Grammar and Lexis)           |
  |    (Sounds or letters)           ↓
Bottom up
```
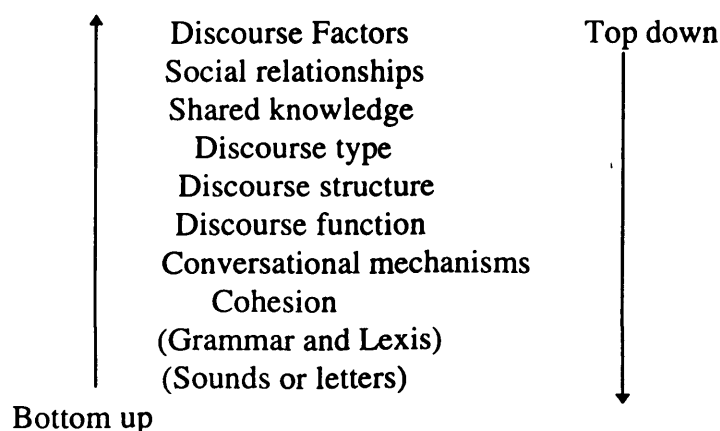
Widdowson (1978) earlier supported this approach:

'...the consideration of use requires us to go beyond the sentence and to
look at larger stretches of language. Normal linguistic behavior does
not consist in the production of separate sentences but in the use of
sentences for the creation of discourse." (p.22)

Text analysis also indicated that there are different types of texts each with related macro
and micro features. There are also suggestions that there are levels of complexity between
text types and the existence of different sub-texts or embeddings with the same text type and
specific linguistic features, cohesion being one important device, that highlight the
relationships in texts making them accessible to the reader. These points, it is argued, should
be taken into consideration in any analytic research on texts. Furthermore, if as Hoey (1991a)
claims, a study of text is also a study of lexis, it would be interesting to explore their relation
in one genre, EFL compositions, as a step in understanding our students' writing. The
following chapter deals further with exploring patterns in texts, specifically lexical cohesion
patterns in the overall organization of the text.

CHAPTER FIVE

COHESION IN TEXTS

"Let the voice within your voice speak to the ear of his ear."
Gibran, The Prophet

Cohesion has been a major area of concern in text analysis since the 1970's and a number of advances have been made towards the understanding of texts and writing development. Although cohesion alone does not produce quality writing, it is a significant linguistic feature in the production of texts. Grabe and Kaplan (1996) note both the limitations and the importance of cohesion studies:

'Cohesion research does not appear to be a complete answer to understanding
writing development; at the same time, cohesion analyses do provide certain
useful insights.'(p.58)

It is these *limitations* and *insights* of research in cohesion analyses for students' writing development that form the topic of this chapter. It is argued that cohesion, specifically lexical cohesion, is an important feature in the production of texts and that there is a need for more in-depth discoursal studies to obtain clearer descriptions of the cohesion patterns at different levels of writing proficiency and of the relations of these patterns to the coherence in EFL/ESL student writing (Khalil, 1989; Hoey, 1991a; Granger and Tyson, 1996). The discussion is divided into eight major parts: 1) importance of cohesion, specifically lexical cohesion in written texts, 2) cohesion and coherence in texts, 3) taxonomies of cohesive devices, 4) lexical cohesion in expository essays 5) taxonomies of lexical cohesion , 6) studies in cohesion, 7) studies on Arab non-native students' texts and 8) implications for the present study.

I. Importance of Cohesion in Written Texts

Most linguists agree that cohesion refers to the surface means that connect texts and signal underlying relationships within and between sentences. Carter (1987) sums up the idea of cohesion: "The term 'cohesion' embraces the means by which texts are linguistically connected" (p.72). Since Halliday and Hasan's (1976) seminal work, cohesion has been viewed with much significance and research has been carried out on student compositions to see how different cohesive devices in text contribute in the production of 'good' writing (see section VI. later). De Beaugrande and Dressler (1981) identify cohesion as one of the seven

standards without which a text would not be a text and Harnett's (1986) comment, quoted at length below, sums up the importance and need for cohesive studies which is still very relevant today:

'If meaning exists in relations (see Pike 1964), words that signal relations
are important resources for writers. ... If thinking is the manipulation of
an internal representation of environment (see Hunt, 1983), terms which
express this manipulation are also important resources for writers....if 'good
writing' implies 'coherent meaning,' and if coherence is expressed partially
through linguistic cohesion, it seems useful to analyze cohesion in writing
as it contributes to coherence in prose.... Only a few, however, have attempted
to analyze systematically how cohesion contributes to coherence..'(p.142)

Peters (1986) further argues that the use of cohesive devices becomes even more significant in *academic writing* since it is a form of a monologue and "...thus apart from indications of macro-structure, readers expect ...micro-structure details to supply cohesion and to show the logical connections between one statement and another" (p.170).

Along with the more general view of cohesion discussed above, linguists note the importance of a specific category of cohesion, that of the connective function of lexis in texts. Although it was with Hoey's (1991a) work that lexical cohesion as a replicable analytical tool in texts became more explicit, linguists have long commented on its importance and attempted to define it. Halliday, in an early article, (1966) mentions the importance of devising methods to study the lexical patterns in language and towards the end of the paper comments that '... the cohesive power of lexical relations, are of great potential interest' (ibid., p.160). Sinclair, had also (1966) noted the importance of lexical studies in their own right.

"But running parallel to grammar is lexis, which describes the tendencies of items to
collocate with each other. A study of these tendencies ought to tell us facts about
languages that cannot be got by grammatical analysis, ..." (p.411)

However, he perceived the need for more work before a theory of lexis could be described and even found defining the term *lexical item* difficult:

'a formal item (at least one morpheme long) whose pattern of occurrence can be
described in terms of a uniquely ordered series of other lexical items occurring in its
environment.'(ibid, p.412)

Bloor and Bloor (1995) also note the importance of lexical cohesion and define it in the Hallidayan sense:

'*Lexical cohesion* refers to the cohesive effect of the use of lexical items
in discourse where the choice of an item relates to the choices that have
have gone before.' (p.100)

It seems worthwhile, therefore, to study lexical cohesion in texts and to search for an analytic procedure which would show how student texts are constructed.

II. Cohesion and Coherence in Texts

Another important feature of text is coherence. It is discussed here since one focus of the present study attempts to examine how cohesion contributes to text coherence (see Chapter Ten). Linguists and researchers (Widdowson, 1978; de Beaugrande and Dressler, 1981; Carrell, 1982; Chapman, 1983; Bamberg, 1984; Cook, 1989; Johns, 1986; Connor, 1990; Enkvist, 1990, Hoey, 1991a, Hatch, 1992) attest to the importance of coherence in written discourse but agree that it is not as concrete to identify as cohesion is.

Johns (1986), however, neatly divides the definitions into two groups: text-based and reader-based. Johns points to Grabe's (1985) review on text analysts which considers coherence part of the text in the propositions that hold the text together. Some linguists (Swales, Evensen, and Harris in Connor and Johns, 1990; Coulthard, 1994a) also imply that use of global markers and superstructure management in the use of introductions, topic sentences etc. contribute to text coherence. Johns (1986), however, noted that traditional concepts of coherence as totally reliant on textual features were being challenged beginning with Halliday and Hasan's (1976) work. Halliday and Hasan had viewed coherence with two characteristics: 'cohesion (i.e. ties between sentences) and register (i.e., coherence with a context)' (ibid., p.248):

> 'A text is a passage of discourse which is coherent in these two regards:
> it is coherent with respect to the situation, and therefore consistent in
> register; and it is coherent with respect to itself, and therefore cohesive.'
> (Halliday and Hasan, 1976, p.23)

However, as Johns points out, Halliday and Hasan's work concentrates on cohesion which they themselves allude to as not being a sufficient qualilty of text. Still, Halliday and Hasan's idea of a coherent text is that it is cohesive. Johns points out how textbooks and classroom practices in EFL have misinterpreted Halliday and Hasan's (1976) theory of cohesion and included lists of cohesive items, typically, conjunctions or linking words, in textbooks in the effort to teach students to use them to make their texts coherent.

From the reader-based approaches of coherence, Johns (1986) reviews the work of psycho-linguists: "According to this view, the degree to which a reader grasps the intended meaning and underlying structure from text (and therefore finds it coherent) depends, to a large extent, upon whether the reader-selected schemata (or expectations) are consistent with the text' (ibid., p.250). She refers to two text processing procedures: from the bottom up

(the processing of letters, words, and phrases) as well as from the top down (from the reader's prior knowledge and expectations) and concludes that reading is considered an interactive and interpretive process which the writer must be aware of. Definitions of coherence indicate that coherence is not only the use of textual features such as those of cohesion. Cook (1989, p.4) defines coherence as:

> "The quality of being meaningful and unified" "...It is a quality which is clearly necessary for communication and therefore for foreign language learning, but which cannot be explained by concentrating on the internal grammar of sentence."

Swales (cited in Connor, 1990) also attempts to define coherence:

> "... the prevailing view would seem to be that coherence is a property that a reader ascribes to a text (in some varying degree) while cohesion is a property that a text possesses (in some varying degree) ..." (p. 189)

Hoey (1991a) defines coherence also with the reader in mind:

> "We will assume that cohesion is a property of the text, and that coherence is a facet of the reader's evaluation of a text." (p.12)

Enkvist (1990, p14) also defines coherence and distinguishes it from cohesion. For purposes of the definition the three texts Enkvist refers to as an illustration are given first.

Text 1
> 'My car is black. Black English was a controversial subject in the seventies At seventy most people have retired. To re-tire means "to put new tires on a vehicle." Some vehicles such as as a hovercraft have no wheels. Wheels go round.'

Text 2
> ' Susie left the howling ice cube in a bitter bicycle and it melted. It soon tinkled merrily in her martini. Into her drink she then also poured the grand piano she had boiled in a textook of mathematics the night before. She chewed the martini, read the olive and went to bed. But first she took her clothes off. She then took her clothes off.'

Text 3
> 'The net bulged with the lightning shot. The referee blew his whistle and and signaled. Smith had been offside. The two captains both muttered something. The goalkeeper sighed for relief.'

Enkvist notes that 'no existing grammar, or other description of English, can explain why 3) makes better sense than 1) or 2), yet it does to those who know about soccer. ... "We must understand a text, that is, build up a world picture around it, to say that the text is coherent.

Conversely, a text strikes us as incoherent if we cannot build up a plausible scenario around it.' (ibid., p.13). Thus Enkvist's definition of coherence:

> "Cohesion is the term for overt links on the textual surface such as those in
> 1) and 2) whereas coherence is the quality that makes a text conform to a
> consistent world picture and is therefore summarizable and interpretable.
> Thus 1) and 2) have cohesion but not coherence, and 3) has coherence
> although it lacks over, grammatically describable cohesion markers such as
> repetition or anaphora. The coherence in 3) follows from our being able to
> surround it with a plausible text world.' (ibid., p.14)

Enkvist, however, explicitly cites seven problems in the study of what makes texts coherent: 1) cohesion and coherence relationship, 2) messages and metamessages or textual and non-texual, 3) inference in interpretation, 4) the relevance of situational context, 5) receptor knowledge and degree of interpretability, 6) text strategies, text categories, patterns of exposition and argument, and 7) strategy, structure, and process.

Hoey (1991a) also comments that

> "Whatever the relationship between cohesion and coherence, it is
> clear that cohesive ties are not by themselves criterial of coherence."
> (ibid., p.12)

From the foregoing definitions, it is apparent that cohesion is not a necessary quality of coherence and that coherence is also reliant on the reader's interpretation of the text in varying degrees. The implications of this work is best summed up by Carrell (1982) in her critique that *Cohesion Is Not Coherence*:

> "If we really want to learn about textual coherence, we must supplant or
> at least supplement textual analysis theories such as cohesion theory with
> broader, more powerful theories which take the reader into account, and
> which look at both reading and writing as interactive proceses involving the
> writer and the reader, as well as the text" (ibid., p.487)

There have been numerous attempts to make taxonomies of coherence features and methods of coherence evaluation in texts (Grice, 1975; de Beaugrande and Dressler, 1981; Bamberg, 1983; Hamdan, 1988; Connor and Johns, 1990; Enkvist, 1990, among others). One coherence evaluation scale, perhaps typical of most, is that of Bamberg's (1983, 1984) which has been adapted for use in some composition evaluation studies (e.g. Hamdan, 1988). Bamberg (1983) incorporates coherence features on a four point holistic evaluation scale (4 representing full coherence) and includes items such as: topic and context orientation for the reader, organization, cohesion-lexical, conjunction, reference etc.-closure and grammar. Although inter-rater reliabilities have been obtained between coherence and text quality using

this scale (Connor and Lauer, 1985; Hamdan, 1988) the holistic nature of the scale and the inclusion of broad cohesion categories as part of coherence limits detailed analysis of texts.

The question remains as to how cohesion can be better utilized to understand student texts and help students produce coherent ones? This study, hopefully, may give a few insights.

III. Taxonomies of Cohesive Devices

There are various categories of cohesive devices that linguists and researchers have described including: reference, substitution, ellipsis, conjunction and lexical relationships. Since Halliday and Hasan's (1976, 1989) work has been the basis of much work in this field, the cohesive categories as described by them is given first. This shows the relative place of the lexical cohesion category (see section V. later).

A. Halliday and Hasan's (1976) Taxonomy of Cohesion

In Halliday and Hasan's (1976) systemic-functional model, language is made up of three major parts: the *ideational*, (concerned with the expression of content), the *interpersonal*, (concerned with the social, expressive and *conative* functions of language) and the *textual* (concerned with the structural and non-structural systems that create language) (ibid., p.26-27). Halliday and Hasan (1976) see cohesion as part of the non-structural textual system in that it is not necessarily tied to the sentence but can extend beyond sentence boundaries over text. They define text as 'a unit of language in use', (ibid., p.1) which could be of any length and as '..a semantic unit - a unit not of form but of meaning' (ibid., p.2). The function of cohesion in text is as follows:

"The concept of cohesion is a semantic one; it refers to relations of
meaning that exist within the text, and that define it as a text.
Cohesion occurs where the interpretation of some element in the
discourse is dependent on that of another.' (ibid., p.4)

These concepts of text and cohesion are maintained in Halliday (1994)

"But it is important to be able to think of text dynamically, as an ongoing
process of meaning; and of textual cohesion as an aspect of this
process...The organization of text is semantic rather than formal, and
(at least as far as cohesion is concerned;...) much looser than that of
grammatical units." (ibid., p. 311)

This semantic communicative function of a text overrides the grammatical unit of sentence; it is something superordinate to a sentence but is realized by sentences. To help unify the text, there are what Halliday and Hasan (1976) refer to as *cohesive ties* between and within sentences. They are basically structural representations on the surface of discourse to show

both grammatical and semantic underlying relations. These cohesive ties are what gives texture (or as Halliday and Hasan define it - coherence) to a piece of discourse; they make a text a text. The greater the number of ties, the tighter the cohesion and the more coherent the text is.

Cohesive ties either point backward to a referent (anaphoric - most common in English) or point forward (cataphoric). A text may be made up of a system of cohesive chains (more than one set of ties) which may be of varying degrees of density depending upon the sophistication of the writer's language, the purpose of the writer, and the type of writing at hand. An example of a cohesive tie by *reference* is given below where *It* refers back (anaphoric) to *cat* and forms a cohesive tie.

Example 1:   The *cat* began to drink the milk. *It* was very hungry.

According to Halliday and Hasan's (1976) categories, there are three types of cohesion: *grammatical*, *lexical* and *conjunctions*. Figure 5.1 summarizes Halliday and Hasan's (1976) cohesive categories.

Figure 5.1   Halliday and Hasan's (1976) Taxonomy of Cohesion (p.322)

Cohesion consists:
1. in continuity of Lexicogrammatical meaning ('relatedness of form'; phoric)
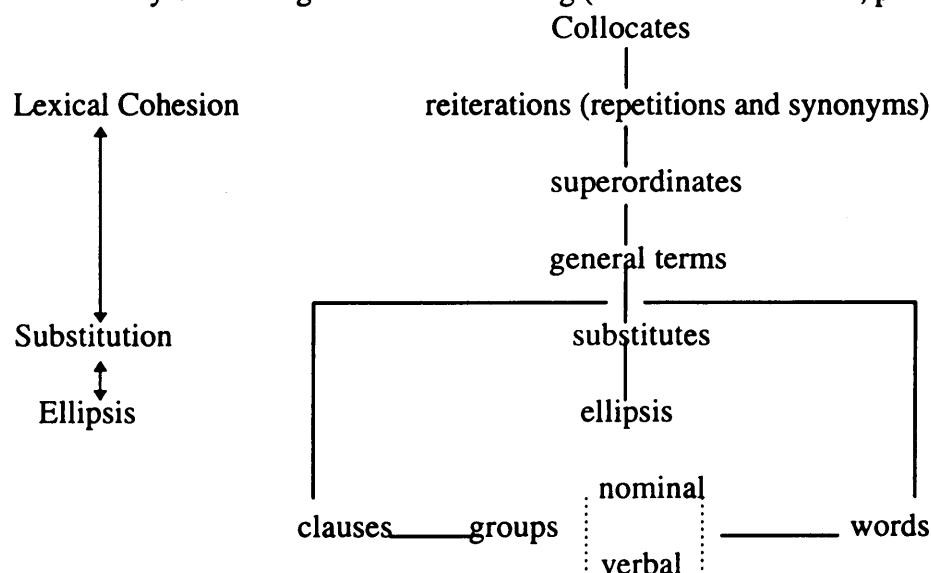
2. in continuity of referential meaning ('relatedness of reference': phoric)
   Reference
   |personal   (communication role of referent)
   |demonstrative (proximity of referent)
   |comparative   (similarity to preceding referent)

3. in semantic connection with the preceding text (non-phoric)
Conjunction

additive	in	ideational meaning (external)
adversative	terms	interpersonal meaning (internal)
causal	of	
temporal		

1. Grammatical Cohesion

This category includes reference, substitution and ellipsis.

a. Reference

Reference ties are semantic relations between an element of text and some other thing by reference to which the element is interpreted. Reference is either exophoric (outside the text) or endophoric (inside the text) and can be in one of three categories: pronouns, demonstratives and comparatives. Figure 5.2 indicates these types of reference.

Figure 5.2 - Reference Cohesion (Halliday and Hasan, 1976, p.33)

Reference

Exophoric
(situational)

Endophoric
(textual)

anaphoric   cataphoric
(to preceding text)   (to following text)
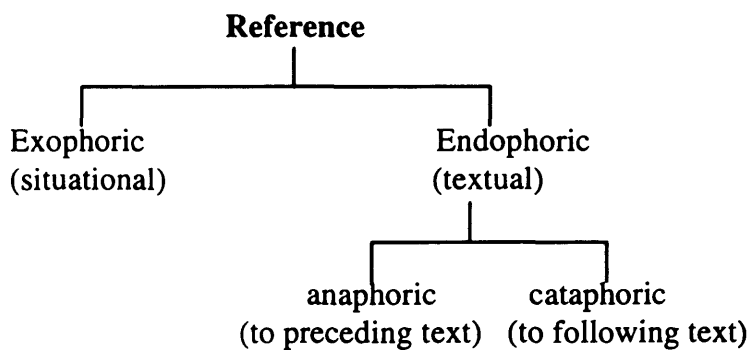
Example 2: *Paul* likes *wine*. *He* drinks *it* every day. Both '*he*' and '*it*' are anaphoric referents and form a cohesive tie.

b. Substitution and Ellipsis

According to Halliday and Hasan (1976) incidences of *substitution* and *ellipsis* form grammatical cohesive ties involving presence or absence of an item respectively. In the following example of substitution, the italicized words have been replaced by 'one'.

Example 3: Q. Does the professor need *a pen*?
             A. No, he just borrowed *one*.

Words such as *one, do, so,* and *not* belong to this category. In *ellipsis*, words have been omitted in the structure of the sentence, but the meaning is not distorted since it is recoverable from the preceding context.

Example 4: John bought some cheese. Pam *bought* wine.

The use of substitution and ellipsis helps the writer avoid unnecessary repetition especially in speech. In written discourse, the writer should be careful not to cause ambiguity for the reader. There is often an overlap between substitution and ellipsis.

Example 5: Paul bought a magazine. Mary bought *one* too.

The *one* could be considered substitution for magazine or ellipsis in that *magazine* is omitted. Hoey (1991a) points out that Halliday and Hasan (1976) admit that 'the boundary lines among these two categories and references are indistinct' as the example below indicates (Hoey, 1991a, pp.5-6).

Example 6: "In answer to the unlikely question 'Does Agatha sing in the bath?', a. is an instance of substitution, b. of ellipsis, and c. of reference:

    a. No, but I do.
    b. Yes, she does.
    c. Yes, she does it to annoy us, I think." (ibid., p.6)

2. Lexical Cohesion

Lexical cohesion, the second category, is of two types: *reiteration* and *collocation* which form a large portion of cohesive ties and differ from grammatical cohesion in that they may leap over several sentences and may not have only one presupposed item.

" Lexical ties are independent of structure and may span long
passages of intervening discourse." (Halliday, 1994, p.311)

In *reiteration* (paradigmatic cohesion), the repetition of words or phrases may be through the use of synonyms (same meaning), antonyms (opposite meaning), hyponyms (superordinate to part e.g. family to father, mother, children etc.), and meronyms (part to whole, e.g. finger to hand) where the two occurrences have the same referent and are accompanied by 'the' or a demonstrative; for example, 'this' (Halliday and Hasan, 1976, p.318). In *collocation* (syntagmatic cohesion) , there is an occurrence of individual items which are associated by a semantic field; for example, 'father' collocates with 'mother' and 'children' in a semantic field of family relationships which exist as hyponomy. Some researchers note that the lexical category is not very clear and seems to be a collection of miscellaneous features (see Stotsky, 1983 and Hasan, 1984 in section V.).

Hoey (1991a), however, considers that cohesion in text is basically a study of lexical patterns and this is the importance of lexical cohesion (see Chapter Seven).

3. Conjunction Cohesion

Conjunctions, the third category of cohesion, connect sentences explicitly showing the underlying meaning (or semantic) relations between them. Halliday and Hasan (1976) view them as separate from grammatical and lexical cohesion (lying between the two) and divide them into three types: *Elaboration* (e.g. thus, in short), *Extension* (e.g. and, also, but) and *Enhancement* (e.g. then, next, finally, likewise).

B. Halliday and Hasan's (1989) Taxonomy of Cohesion

A revision of the taxonomy by Halliday and Hasan (1989) in Figure 5.3 below shows that the main change is that the two major components are divided into non-structural and structural and the lexical cohesive category more clearly identifies the parts.

Figure 5.3 - Revised Taxonomy of Cohesion (Halliday and Hasan, 1989, p. 82)

Non-Structural Cohesion

Componential Relations	Organic Relations
Device	
Grammatical Cohesive Devices	**A. Conjunctives**
A. Reference	e.g. causal tie
1. Pronominals	concession tie
2. Demonstratives	
3. Definite article	
4. Comparatives	**B. Adjacency pairs**
B. Substitution & Ellipsis	e.g. *Question*
1. Nominal	(followed by
2. Verbal	answer; *offer*
3. Clausal	(followed by)
	acceptance; order
	(followed by)
	compliance...
Lexical Cohesive Devices	
A. General	**Continuatives**
1. Repetition *(leave,left)**	(e.g. *still, already...*)
2. Synonymy *(leave,depart)**	
3. Antonymy *(leave,arrive)**	
*4. Hyponymy *(travel,leave)**	
5. Meronymy *(hand,finger)**	
B. Instantial	
1. Equivalence(*you* be the *patient*)*	
2. Naming (the *dog* was called *Toto*)*	
3. Semblance (the *deck* was a like	
a *pool*)*	
* *Taken from Hasan (1984, in Hoey, 1991a, p.8-9)*	

Structural Cohesion

A: Parallelism
B: Theme-Rheme Development
C: Given-New Organisation

Halliday and Hasan (1989) also revise their view of the text and the cohesive devices as part of a context (context of situation) which they qualify to include three features of the context. The first feature is the **field** of discourse which refers to what is happening socially '....the general sense of what it is on about'; for example in a love poem '..the field of discourse is love..' (ibid., p.24). The second feature is the **tenor** which is concerned with the personal relationships involved: who are the participants in this text?' (ibid., p.34). The third feature is the **mode** 'that is to say the particular part that the language is playing in the interactive process: whether the mode is speech vs. written, or the type of genre; for example, 'a composition in a recognised genre' (ibid., p.24). Figure 5.4 shows the relationship between the text and the situation.

Figure 5.4 Relation of the Text to the Context of Situation (Halliday & Hasan 1989, p. 26)

Situation:	(realised by)	Text:
Feature of the context		Functional component of semantic system
Field of discourse (what is going on)		Experiential meanings (transitivity, naming, etc.)
Tenor of discourse (who are taking part)		Interpersonal meanings (mood, modality, person, etc.)
Mode of discourse (role assigned to language		Textual meanings (theme, information, cohesive relations)

Many studies of student compositions have been based on Halliday and Hasan's (1976, 1989) cohesive categories (see Section VI. later).

IV. Lexical Cohesion in Expository Essays

The significance of the role of lexis in connecting text has been noted by researchers. Stotsky (1983) mentions the importance of work done by Shaughnessy (1977a) and Halliday and Hasan (1976) in 'examining the role of vocabulary in connected discourse from a different perspective' (ibid., p.430) although she does comment on the latter's limitation in analytic studies on academic essays (see section V.). Since the present work focuses on an analysis of lexical cohesion devices in expository essays, a review of two related aspects are reviewed below: 1) lexis and organization of texts and 2) lexis and repetition in texts.

A. Lexis and Organization of Texts

Linguists, researchers, and EFL teachers have tended to look at vocabulary (used interchangeably with lexis hereafter) not as a skill in its own right but as subsidiary to the reading or writing skill. Slot and filler type exercises and lists with grammar were the overiding framework (see McCarthy, 1984; Carter, 1988; McCarthy and Carter, 1994). Some precoccupied themselves with making lists called lexicons to help students widen their vocabulary repertoire (e.g.Thorndike, 1944; West, 1953; Praninskas, 1972; others as surveyed by Fox, 1982). Although these lexicons provide a range of items needed in writing, Halliday and Hasan's (1976) work saw the true beginnings of studying the lexis as having a more 'important' role in discourse, and in fact they devote a chapter on it, 'Lexical Cohesion'. Other researchers have recommended that vocabulary should be viewed with more of an emphasis on its communicative role at the discourse level (Richards, 1976; Judd, 1978; Celce-Murcia and Rosensweig, 1979; McKay, 1980, and Nattinger, 1980 in McCarthy, 1984, 1991; Coirer, 1991; Lewis, 1993, Coulthard, 1994b; Sinclair, 1994). Some propose a lexical syllabus (e.g. Sinclair and Renouf, 1995; McCarthy and Carter, 1994). In relation to this new perspective of the role of vocabulary, McCarthy (1984) says

> "Research has not yet made clear the functions of lexical patterning above sentence-level, across turn-boundaries and as discourse organizers, but as it does, it will be as important to language teaching as was the demonstration of the lack of fit between grammatical patterning and communicative function. Lexical reiteration is a good example of this. A description of its cohesive function is available in Halliday and Hasan (1976). ...Of paramount interest should be the communicative effects of such relations as synoymy, antonymy, and hyponymy across sentence, conversation, and discourse boundaries" (p.15).

Linguists have noted the importance of lexis in indicating the macro-structure of texts (see Stotsky, 1983; Jordan, 1984; Carter and McCarthy, 1988; Dudley-Evans, 1994; Hoey, 1991a; Nattinger, 1992; Hoey, 1994; Francis, 1994; Hunston, 1994; McCarthy, 1991; 1994, among others). McCarthy (1991) notes three major types of lexis. The first two are grammatical and lexical words (closed or function words as opposed to open or content words). Examples of the former are the articles, verbs, demonstratives, prepositions and the like; examples of the latter are *monkey, noise, toenail* etc. which, according to him, show larger patterns of text (p.74). The third class, the discourse-organizing (also referred to as lexical signalling) such as *basis, case, cause, these questions, the issues* either refer back or forward in a text and are comparable to Hoey's (1994) and McCarthy's (1994) discourse organizers. Carter and McCarthy (1988) comment on the organizing feature of lexis in text:

'Language practitioners need not shy away from lexis as a boundless chaos;
organisational principles are available and simply wait to be more fully
exploited' (p.38).

In fact, Hoey (1991a) has recently argued for other organizing patterns of lexis over text
and provides some workable samples (see Hoey 1991a, b) which seem to open a new frontier
in lexical cohesive studies.

B. Lexis and Repetition in Text

Not only is lexis viewed as having an organizational function over texts, but its repetitive
role in organizing and developing ideas is now recognized. Since repetition of lexical items is
an important part of the analysis of lexical cohesion in the present study, it is discussed below
with an account of repetition in spoken discourse for comparative purposes.

1. In Written Texts

Repetition is often viewed in the teaching/learning situation in academic texts as something
to be avoided due to its redundancy (Winter, 1979). Academic expository writing is usually
valued for its conciseness and logical ordering of ideas. However, 'repetition' can add to the
quality of writing. Studies have shown that lexical repetition has both a connective and
organizing function in texts (Winter, 1979; Hoey, 1991a; McCarthy, 1991; Youman, 1993).
Winter (1979) emphasizes the importance of repetition as 'replacement' in contributing to the
context of adjoining sentences and notes the loss of meaning when sentences are quoted out of
context, as Quirk (1952 in Winter, 1979) finds true of words. Winter finds it necessary to
define 'systematic repetition'.

(It) "is not item repetition as such, but is the significant repeating of one or
more of the constituent features of clause of a first member within the
structure of a second member, where it becomes new sentence or part of new
sentence. ...In such repetition, there are obligatory changes or additions
to the repeated clause structure which give it new meaning as clause. These
have been called replacements. ... It is this semantic process which gives
systematic repetition its signficance between sentences." (p.102).

Thus, he used 'repetition' in a broader sense. 'I use it to stand for all its connective functions
between clauses: deletion (or ellipsis), substitution and lexical repetition' (ibid., p.102). He
reviews the studies in repetition from the 1920's to the 1970's which indicated this view on
lexical repetition (Karlsen, 1959, Harper, 1965, K. Callow, 1970, Quirk et. al., 1972,
Longacre, 1974, Winter, 1974, Halliday and Hasan, 1976 Hoey in progress in Winter, 1979).
Youman (1993) also found in professional writing in stories and essays that repetition is a
normal occurrence for innovation and coherence.

Weissberg (1984) in an attempt to identify alternative authentic paragraph development structures (as opposed to the ones that textbook writers stress such as definition, cause-effect, comparison and contrast) analyzed 60 authentic scientific writings and the 'extent to which explicit cohesive devices occur in experimental research reports' (p.491-2). It was found that

> "..it is clear that exact repetition of words is an important cohesive device in scientific writing. Although students in advanced composition classes sometimes express concern over the frequent use of repeated words within and across sentences the results reported here and elsewhere indicate that lexical repetition is not to be considered a stylistic flaw in scientific research report writing. Students should be encouraged to use this device when necessary to strengthen the cohesion of their writing." (p.495)

McCarthy (1991) adds that

> "If lexical reiteration can be shown to be a significant feature of textuality, then there may be something for the language teacher to exploit ... not ...because it is there, but only if, by doing so, we can give learners meaningful, controlled practice and the hope of improving their text-creating and decoding abilities,and providing them with more varied contexts for using and practising vocabulary." (p.65).

2. In Spoken Texts

Linguists have also noted the cohesive quality of repetition in spoken discourse. Tyler (1994) analyzed the lectures given by two native and two non-native speakers and concluded that the use of lexical repetition by the native speakers made the texts more coherent.

> "...lingusitic forms, i.e. particular patterns of lexical repetition which provide context-situated interpretations of lexical items and establish context-specific synonym sets, have been shown to contribute to discourse coherence." (p.687)

Norrick (1987) also stressed the importance of repetition and outlined its functions, recognizing '...general cognitive and interactional motivations for repetition in the nature of conversation itself, in the task of production, in the attempt to render discourse more coherent and accessible, and in strategies for influencing hearers' (ibid., p.246).

Tannen (1989) sees the importance of repetition of words and phrases in spoken discourse towards 'the establishment of coherence and interpersonal involvement', (p.48) and details the different ways this is brought about for purposes of production, comprehension, connection (specifically cohesive), interaction and coherence as interpersonal involvement. Although repetition in speech is brought about in different ways than in written discourse, it is significant to note that 'repetition' is an important aspect of human discourse in general. Tannen refers to Halliday and Hasan's work (1976) in including 'repetition in their taxonomy

of cohesive devices; it serves a referential and tying function' (ibid, p.50). She comments on this cohesive function in speech, 'Repetition of sentences, phrases, and words show how new utterances are linked to earlier discourse, and how ideas presented in the discourse are related to each other' (Tannen, 1989, p.50). For example, the *'and he* in the final line ties it to the others and shows that it is the same person. (The italics are the researchers'. 1   And he knows Spanish ,2   And he knows French .. 5   *And He* is a gentleman. (ibid., p.50)

V. Taxonomies of lexical Cohesion

Several linguists have described taxonomies of lexical cohesion which are reviewed in this section in chronological order. They relate to academic expository writing.

A. Winter (1974, 1979) (see section I.2 later)

B. Stotsky (1983)

Stotsky's (1983) work although noting the value of Halliday and Hasan's (1976) cohesive categories, is significant in outlining the limitations in their use on academic expository essays. She first points out that Halliday and Hasan's (1976) scheme focused on an examination of a 'conversational literary text' [*Alice in Wonderland*] and suggests that this differs from the vocabulary of academic expository writing. Therefore, a different cohesive scheme is needed. She finds Halliday and Hasan's scheme limiting in that it does not account for: 1) the use of derivatives and derivational elements (e.g. 'nominal', 'nominalization') which are indicators of maturity in writing, 2) the use of a superordinate followed by a subordinate (as in expository essay writing it is usual to find instances of a general word preceding an example, e.g. 'societies' - 'civilians'), 3) the different types and preciseness of referential repetition; the identification of lexical repetition need not refer back to a common referent and, in fact, '...the second occurrence may be, as far as reference is concerned identical, inclusive, exclusive and unrelated' (ibid., pp.433-435) and still be counted as reference, and 4) the terms that also contrast (e.g. 'employer'/'worker' are often not picked up (considered by Cooper and Odell, 1977 as indicating writing improvement) if they are part of collocation. Stotsky (1983) reformulates Halliday and Hasan's (1976) cohesive categories into a framework that she maintains is more applicable to expository academic essays. She stresses the importance of lexical cohesion by referring to linguists (Witte and Faigley, 1981; Hopkins, 1979) who found that lexical cohesion, compared to grammatical cohesion, constituted the major way of connecting sentences in expository essays of both high and low quality. She says:

> 'If lexical rather than grammatical cohesion is the most significant kind of cohesion
> in academic discourse, future research may wish to consider using the framework
> suggested in this section. It may yield clearer and more accurate information

and insights about the use of lexical resources by writers of exposition than the original scheme by Halliday and Hassan.' (p.440)

Stotsky's lexical cohesive categories (1983) are outlined below in Figure 5. 5 and Halliday and Hasan's (1976) are given in Figure 5.6 for comparative purposes.

Figure 5. 5 Proposed Taxonomy of Lexical Cohesion in Expository Essays (Stotsky, 1983)

I. Semantically related words: a type of cohesion in which one lexical element is
systematically related to a previous one through:
  1. Repetition
  2. Synonymy or near-synonymy
  3. Opposition or contrast
  4. Inclusion as a coordinate, superordinate, or subordinate member in an ordered
     or unordered set (general or specific terms)
  5. Derivation or repetition of a derivational element
II. Collocationally related words: a type of cohesion in which one lexical element is related
to another only through frequent co-occurrence in similar
contexts*

---

* Factors affecting the cohesive power of co-occurring words in expository essay writing:
a. Frequency of occurrence in the language as individual words
b. Frequency of co-occurrence in texts in general
c. Physical proximity in the text
d. Extent of reader's reading experience with these co-occurring words

(Stotsky, 1983, p.441)

Figure 5.6 Taxonomy of Lexical Cohesion (Halliday and Hasan, 1976)

I. Reiteration: a type of cohesion in which one lexical element is related through a
common referent to a previus element as a:
  1. Repetition (e.g. *power/power*)
  2. Synonym or near-synonym (e.g., *lack of order/chaos*)
  3. Superordinate word (e.g., *armies/societies*)
  4. General word (e.g., *power/This entity*)
II. Collocation: a type of cohesion in which one lexical element is related to a
previous one through frequent co-occurrence in similar contexts by:
  1. Association with a particular topic (e.g., *Marx, social change, economic class
                                    conflict, capitalistic society*)
  2. Opposition or contrast (e.g., *influence/counter influence*)
  3. Membeership in ordered sets
  4. Membership in unordered sets

C. **Hasan (1984)** (see section I.1.)

D. **Phillips (1985)** (see section I.3.)

E. Cruse (1986)

Cruse's (1986) taxonomy focuses on synonyms and antonyms. He admits the complexity of strict identification in these two classes; whether two items are synonymous, or to what extent depends greatly on the context. He proposes a scale of words that are more synonymous than others and three sub-groups of antonyms.

F. Harnett (1986)

Harnett (1986) proposes two subclasses of cohesive links, *static* and *dynamic ties*, which develop the topic and help identify writing quality. She defines static ties as 'those that hold attention on a topic.....repetition of the same lexical item, demonstratives, nominal, verbal and clausal substitution and ellipsis...synonyms, near-synonyms, antonyms, and collocations...'. Dynamic ties 'develop the topic rhetorically such as 'temporal conjuncts (before, afterwards)...lexical superordinates, hyponyms, causal conjunctions (e.g.afterwards therefore)..Adversative conjunctions (e.g. but, however) signal contrasts, and the comparative and superlative forms of adjectives and adverbs..'(p.145). She concludes that 'static and dynamic ties perform distinct functions in the textual organization of prose. Static ties connect stretches of text; dynamic ties advance the logic of the discourse.

G. Ehrlich (1988)

Ehrlich proposes cohesive categories by Reinhart (1980), of referential linking, through pronouns and noun phrases for example, and semantic connectors, such as 'in addition', 'however'. A few examples are given below. He notes that

> "..pairs of sentences must be either: 1) referentially linked, or 2) linked by a semantic connector in order to be cohesive. This first condition requires that adjacent or near-adjacent sentences within the same paragraph contain NPs (noun phrases) that designate the same referent. The second condition requires that sentences be connected by some semantic marker that expresses a semantic relation such as cause and effect, comparison, contrast, exemplification etc." (ibid., p.112)

Example 7: Restriction on Referential Linking

1. "a) The first of the antibiotics was discovered by Sir Alexander Fleming in 1928. b) He was busy at the time investigating a certain species of germ.

2. "a) The antibiotic which was discovered by Sir Alexander Fleming caused a great disturbance in the medical community. b He was busy at the time investigating a certain species of germ." (ibid., p.113)

Explanation

'Passages 1 and 2 both exemplify referential linking in the sense that the b) sentences of each contain a personal pronoun designating a referent which is also referred to in the a) sentence. However, when contrasted with 1), passage 2) seems odd, i.e. incohesive. One of the differences between 1 and 2 is the information status of the clause in which the first co-referential NP occurs. In 1, Sir Alexander Fleming occurs in a main clause; in 2) the same NP occurs in a relative clause. In terms of informational status, the main clause of 1 is dominant whereas the relative clause of 2 is non-dominant' (ibid., p.113)

Example 8: Restriction on Semantic Connectors

"a) Joy Kogowa is the author of Obasan, a novel that tells the story of Japanese Canadians during World War II through the eyes of a child. b) In addition, she wanted to explore the different ways people reacted to their victimization." (ibid.,p.116)

Explanation

"This passage is odd or incohesive because the semantic connector, in addition, does not connect the proposition of sentence *b* to a proposition of the dominant clause of *a*.

She contrasts this method with Halliday and Hasan's (1976), showing the shortcoming of the latter's approach. She comments: "These results are not terribly surprising if one asumes that it is not the mere presence or frequency of cohesive devices which determines whether a text will be cohesive or not" (ibid., p.112). Referring to Scarcella's (1984) work on cohesion in the writing development of native and non-native English speakers, she claims that 'it is the appropriate fit of these devices to the context and their distribution throughout a text which determines their effectiveness' (ibid.,p.112).

H. Donnelly (1994)

Donnelly (1994) noted the importance of lexical cohesion in texts and mentions three main techniques: *repetition, synonymity,* and *generalization*. For a second type of cohesion, grammatical, Donnelly follows that of Halliday and Hasan (1976). The lexical cohesion categories are briefly described below:

1. **Repetition** 'is simply the repeated use of the same word or phrase' (ibid., p.97). This avoids monotony by: 1) shifting the repeated word in the sentence, 2) varying the use of modifiers, or 3) changing its function (part of speech). The illustration below shows how, in the second paragraph, there is a more effective placing of the word *critics* (ibid., p.97).

Example 9:

"*Critics* are often called the artists' parasites. *Critics* make their living telling other people what they should like. *Critics* do not judge art by

some objective criteria. *Critics* consider what appeals to them to be good art. *Critics* call what doesn't appeal to them bad art." (ibid., p.97)

"In artistic circles, *critics* are often called the artists' parasites. *Critics* make their living telling other people what they should like. However, do not make the mistake of thinking that *critics* judge art by some objective criteria. Good art is simply that which appeals to the *critic*. Bad art is that which does not appeal to the *critic*." (ibid., p.98)

2. *Synonyms* entail using '... a different word that has the same meaning in the given context' whereas many words in the dictionary may indicate a synonymous relationship, it is the context that determines it. For example, the words *answer* and *rebutt* may be indicated in the dictionary as synonymous but in certain contexts are not (ibid., p.99).

3. *Generalization* entails making relations among the more general word and the more specifc (e.g. 'aspirin' - 'pain reliever' - 'drug' - 'stuff' or 'thing').

Although the above taxonomies are worth considering, they were not chosen for the present study since the analytic procedures were not sufficiently detailed for replication.

I. Hoey (1991a)

Hoey (1991a, p.9) notes that lexical cohesion is an important part of cohesive studies and gives a comprehensive analytic procedure of lexical cohesion from which the present study draws its inspiration (see Chapter Seven). He comments that it is different from previous studies of cohesion in that it does not itemize cohesive features but shows their text organizing function. In this way it offers a new perspective on how language is processed which teachers, linguists and researchers can draw upon. He says that

"Lexical cohesion is the only type of cohesion that regularly forms multiple relationships...lexical cohesion becomes the dominant mode of creating texture. In other words, the study of the greater part of cohesion is the study of lexis, and the study of cohesion in text is to a considerable degree the study of patterns of lexis in text." (ibid.p.10)

Hoey (1991a, p.6) observes that most taxonomies of lexical cohesion show ways of repeating, but they do not extend over large stretches of text. He also notes this limitation in regard to Halliday and Hasan's (1976) taxonomy. Their lexical cohesion category does not distinguish sufficiently between items. For example, he notes how in the sub-class of reiteration relations of exact repetition ('book'- 'book'), synonymy or near synonymy ('book-volume'), superordinate ('spaniel-dog') or general word ('spaniel-dog-creature') are all accepted as referring back to the same item. This makes it difficult to differentiate among them and therefore to classify them in any systematized way under reiteration. Hoey (1991a)

notes, however, the significance of Hasan's (1984) revision of the lexical categories that influenced his own work (see section I.1.later). In another category, collocation, in which lexical items usually occur together, (e.g. 'doctor', 'nurse', 'needle'), Hoey (1991a) further notes, along with others, a mixture of relations and problems of identification due to the subjective reliance on reader schemata (Halliday and Hasan, 1976; Stotsky, 1983; Martin, 1981, Hasan, 1984 in Hoey, 1991a). He argues that lexis in discourse tries to account for more obvious features of cohesion. Collocation was, therefore, omitted from the analysis in the present study.

Since the aim of Hoey's (1991a) work was to explore 1) how cohesion contributes to coherence, 2) how cohesion contributes to text organization, and 3) how sentences relate to one another as complete propositions, he needed an analytic procedure that was comprehensive. Hoey (1991a) reviews three researchers' work that influenced his own, as discussed below.

1. Hasan (1984)

The main contribution of Hasan's (1984) work was the inter-relation of the two types of chains, *identity* and *similarity*, first introduced 'simply' in the work of Halliday and Hassan (1976). Hoey (1991a, p.14) mentions Hasan's recognition of the inadequacy of their system (1976) in reporting that there was 'no easy correlation between the number of cohesive ties and the degree of coherence awarded a text by readers' in her research into children's writing.

> "She concludes that a better explanation of the way cohesion contributes
> to the recognition of coherence lies (in part) in the fact that cohesive ties
> form chains that interact with each other; this interaction she terms *cohesive
> harmony*." (ibid., p.14)

Hoey (1991a) defines the two chains referred to in the texts.

> "An identity chain is made up of cohesive ties that all share the same referent(s) whether
> the ties in question are pronominals, reiterations, or instantial equivalents." (Hoey,1991a,
> p.15)

> "Similarity chains are chains of ties where issues of identity cannot arise, for example,
> parallel processes or descriptions. So if three entities in a writer's world are all
> described as little then there will be a chain of three lexical ties formed by the
> occurrences of little." (ibid., p.15)

Hoey points out that "The presence of one or more chains, even identity chains, does not guarantee coherence to a text. Rather, the crucial factor would appear to be that chains interact" (ibid., p.15). He abbreviates an example from Hasan (1984 in Hoey, 1991a):

Example 10:

1 Once upon a time there was a little girl
2 and she went out for a walk
3 and she saw a lovely little teddy bear
4 and so she took it home
5 and when she got it home she washed it
6 and she had the teddy bear for many many weeks and years.

There are three identity chains running through this passage:

1 girl 2 she 3 she 4 she 5 she, she 6 she
3 teddy bear 4 it 5 it, it 6 teddy bear
4 home 5 home.

There are also two similarity chains:

2 went out 5 got...home
4 took 6 had (in this context, both verbs describe possession).

Figure 5.7 below shows the cohesive interaction between the similarity and identity chains

which Hasan sees as contributing to the coherence of the text.

Figure 5.7 - Cohesive Chains (Hasan, 1984)
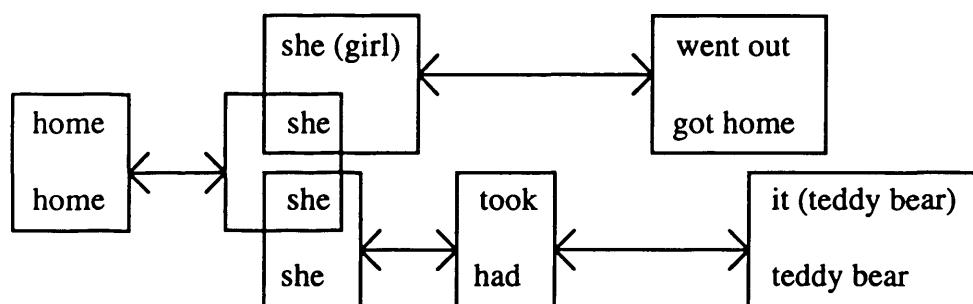
(ibid., pp.15-16)

Hoey (1991a) notes that Hasan's (1984) contribution is a more integrated rather than a classificatory view of cohesion; rather than the occurrence of cohesion, it is the combination of cohesion elements that is signficant (p.16). Thus, Hoey comments, "Our own approach, although it has classificatory stages, is firmly based on the assumption that cohesion can only be satisfactorily understood if it is described functionally and taken as a piece.' (ibid., p.16). He indicates, however, that "..Hasan's notion of the chain does not...provide any insight into the answer to the question of the relationship of cohesion to the ways sentences connect as wholes' (ibid., p.16). Winter's work, reviewed below, does offer such insights.

2. Winter (1974, 1979)

Winter's work, as reviewed by Hoey (1991a), is not so much a classification of cohesive categories as "...how the grammar of sentences contribute to their interpretation in context.'" (ibid., p.16) "...it is much more important to recognize the common function of the variety of cohesive ties than to distinguish them, the common function being to repeat" (ibid., p.17). What Winter counts as repetition is broader than, for example, Halliday and Hasan's (1976) category of reiteration. He uses the term "*repetition* to stand for *ellipsis* (which he prefers to refer to as *deletion*), *substitution* (the label used by Quirk et al. 1972, to describe what Halliday and Hasan term as *reference*), and *lexical repetition* (broadly equivalent to Halliday and Hasan's *reiteration*)" (ibid., p. 17). Hoey quotes Winter on the meaning of repetition:

> "Systematic repetition is not item repetition as such, but is the significant
> repeating of one or more of the constituent features of [one] **clause...**
> within the structure of a second...This repetition provides a clause
> constant whereby the nature of the new information is recognised
> and its importance to the context assessed. In such repetition,
> there are obligatory changes or additions to the repeated clause
> structure which give it new meaning as clause. These have been
> called **replacements** (Dixon 1965, Quirk et al. 1972, and Winter 1974).
> It is this semantic process which gives systematic repetition its
> significance between sentences." (Winter, 1979, p.101 in Hoey, 1991a,p.18)

Thus, '...Winter's use of the term replacement is quite distinct from that of some other linguists. It refers not to the physical replacement of one word by another, as happens when a pronoun 'replaces' a noun in a later sentence, but to the provision of new information in a context that has been previously presented' (Hoey, 1991a, p.18). There are two types of replacement: symmetrical and asymmetrical. Examples of each are given below:

Example 11 - Symmetrical Replacement

> "Pressure built up on all sides: **his** father, a 'moderately successful plumbing
> contractor' (said *Time*) **demanded** performance. **His** mother, who left her
> husband in Florida and moved to Austin to be near her son, **demanded** love.
> Whitman could provide neither."
> (*New Statesman* 12.8.66: 220, taken from Winter 1979 in Hoey, 1991a, p.18)

Hoey (1983 in Hoey, 1991a, p.19) diagrams the relationship in the passage above as shown in Figure 5.8 below:

Figure 5.8 Relationships in Symmetrical Replacement

	His	father	demanded	performance
	His	mother	demanded	love
Repetition	His		demanded	
Relacement		*		*
Constant	His	parent	demanded	response by him
Variable		which sex		what kind of response

Hoey reports that 'Winter notes that the important replacement in this pair of sentences is that of **performance** by **love'** ....although "The first replacement of father by mother sets up the potential for a comparison, since both items are from a small and recognized kinship set and occur with the repeated possessive **his**..." (ibid., p.19).

Example 12 - Asymmetrical Replacement

"...she took just two years to reduce me to a state of nervous breakdown,
and she did this by a combination of just those characeristics which
prejudice allots to women at work: emotionalism, capriciousness,
selfishness and pettiness."
(*The Guardian, letters* 26.5.67; taken from Winter 1979 in Hoey, 1991a, p.20)

Hoey points out "Whereas symmetric replacement presupposes that changes will be made within the existing clause, asymmetric replacement occurs when a clause is repeated and something is added to it" (ibid., p.20). Thus 'The clause **she did this** repeats in its entirety the previous clause, so as to focus attention on the diatribe against women contained in the delayed adjunct. This Winter terms 'replacement by addition'.

Hoey further comments that 'Winter seeks to achieve ..interpretation of pairs of sentences in a text, making use of the way grammar and cohesion interact in the context' (ibid., p.20). However, Winter's work is limited to short texts so to study the relationship of cohesion and large-scale patterning in text, "...we shall need an analytical technique that will permit the handling of large stretches of text" (ibid., p.21). This is relevant to the present study since whole composition texts not parts or extracts were the material for the analysis. Hoey moves on to Phillips' (1985) work for an understanding of relationships over larger stretches of text.

Hoey (1991a) first draws some conclusions from Hasan's (1984) and Winter's (1974, 1979) work which are also relevant to the present research:

'1. If cohesion is to be interpreted correctly, it must be interpreted in the
context of the sentences where it occurs.
2. We are more likely to arrive at a satisfactory account of how cohesion works
if we concentrate on the way repetition clusters in pairs of sentences.
3. It is the common repeating function of much cohesion that is important,
not the classificatory differences between types of cohesion.

4. There is informational value to repetition, in that it provides a framework,
   for interpreting what is changed.
4. Relations between sentences established by repetition need not be adjacent
   and may be multiple.' (p.20)

3. Phillips (1985)

Hoey (1991a) reports that Phillips' (1985) main contribution is his finding of the network patterns of collocation stretching over long distances over chapters in science texts. Although Phillips' work was not focused on cohesion, since the collocations were based on repetition of words it could be considered so.

The significance of the work, however, lies in the intercollocations (e.g. 'if a is shown to collocate with b and c there must have occurred a number of sentences in which a, b, and c were repeated in close proximity to each other.') which 'is a crude measure of the interconnectedness of cohesive chains' (ibid., p.22). Figure 5.9 shows example collocations.

Figure 5.9 Intercollocation Network
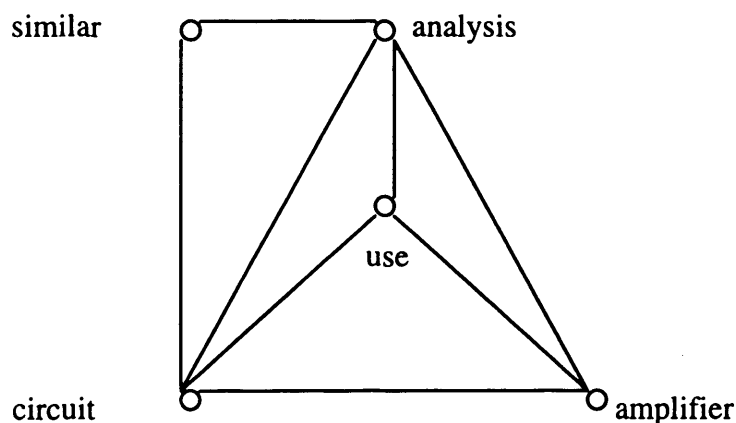
(Phillips, 1985 in Hoey, 1991, p.21)

An added significance is that the collocations form nets which varied over chapters indicating that "...collocation is text-sensitive and that clusters of repetitions occur irregularly (and therefore significantly) at long distance" (ibid., p.22). Hoey cites Phillips' example which shows the '...relationship between similar goups of intercollocations.' (ibid., p.22) in Figure 5.10.

Hoey explains 'Since networks vary from chapter to chapter, the presence in any two chapters of networks closely resembling each other can be used as a measure of the closeness of relationship of those chapters. Phillips argues that this may lead to an overall pattern of linkage among chapters. Thus, working from diagrams [Figure 5.10], Phillips is able to

represent the relationships among chapters in terms of the number of related networks they have" (ibid., p. 23).

However, Hoey points out that what is significant is the number of networks and the links between them. Where Phillips showed significant long-range connections between chapters, Hoey shows links between sentences.

Figure 5.10 Relationship of Intercollocations

order ○   small ○········ small ○———○ consider

variation ○········· variation ○

arbitary ○···························○ arbitary ○ independent

stationary ○ ○ vanish
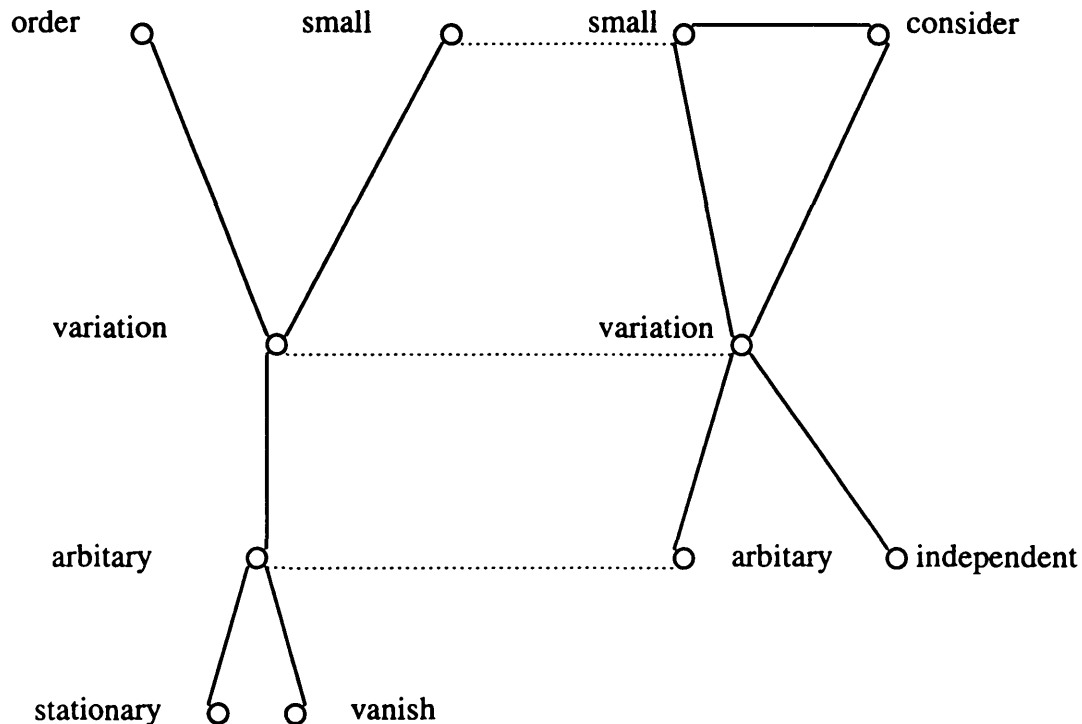
(Philips, 1985 in Hoey, 1991a, p.22)

"Operating the conservative criterion of at least three links [Phillips had found linkage of up to 23 sometimes] allows him to represent (part of) the organization of one textbook" (ibid., p.24). The significant links between a few of the chapters cited in Hoey are shown in Figure 5.11 below:

Hoey describes the relationship among the chapters.

"...there appear to be three patterns of relation between the chapters, patterns that he terms 'segments'. [the organization into 1,2,3 is the researchers']

1. "The sequential segment occurs when we have a succession of linked chapters, the first of which contains only prospective links and the last of which contains only retrospective links.... Chapters 2,4, and 13"
2. The synoptic segment occurs when one has two non-consecutive chapters linked, the first prospective, the second retrospective... Chapters 1 and 13"
3. The last, the isolated segment, occurs when a chapter has no links with any others..Chapter 3" (ibid., p.23).

Hoey (1991a) comments that "The novel claim is that this vocabulary ('...chapters with shared content will also share vocabulary') is tightly organized in terms of collocation and that in broad terms it allows the identification of topic opening and topic closing and of the text's general pattern of organization. In short, he [Phillips] is claiming (or at least it can be claimed for him) that systematic repetition organizes book-length texts through collocation..." (ibid., p.24). Thus, Hoey concludes "..understood aright, cohesion is of the greatest importance in text organization" (ibid., p.25).

Figure 5.11 Links among Chapters
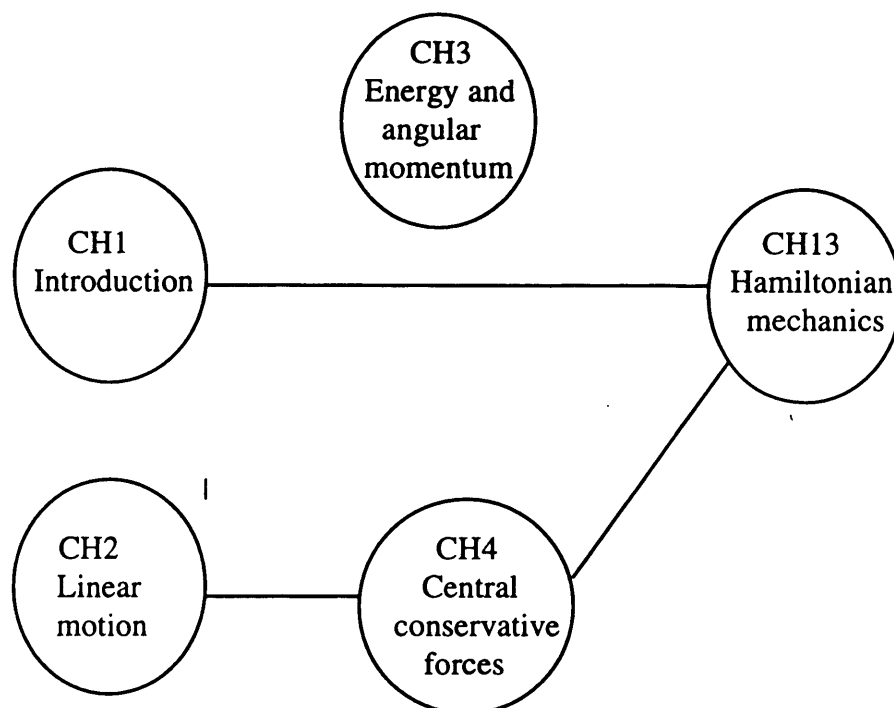
(Phillips, 1985 in Hoey, 1991, p.24)

Hoey (1991a) summarizes the foregoing work   The italics are the present researchers'.

'The implication of the work of Hasan, Winter, and Phillips is that *cohesion does contribute to coherence, is directly relevant to the interpretation of pairs of sentences, and does produce a form of text organization.* What is therefore needed is a way of describing it that will reveal the *cohesive harmony* that Hasan discusses, *the repetition replacement relations* that Winter describes, and *the long-distance organization* that Phillips point to. In short, we need a description that harmonizes these insights.' (p.25)

Chapter Seven provides a summary of Hoey's (1991a) 'description that harmonizes these insights' and an adapted description necessary for the analysis used in the present study.

VI. Studies in Cohesion

Selected relevant studies in cohesion are reviewed in this section. Although it is difficult to classify studies as they often overlap, they will be discussed according to their major focus:

1) the relation between cohesion and writing quality, 2) the relation between cohesion and coherence, 3) the relation between cohesion and genre and 4) studies on Arabic non-native students' texts. Studies in lexical cohesion are included under the general heading of cohesion.

A. Relation between Cohesion and Writing Quality

One major aim of the study of cohesion in student texts is to see how skilled writers produce texts. Then less proficient writers could be given relevant instruction to improve their writing. Shaughnessy's (1977b) study of skilled and unskilled college students revealed that skilled writers had 'hidden features of competency'. There have been many studies of cohesive devices, one 'hidden feature of competency', in 'poor' (or low rated) and 'good' (or high rated) writing (Chambers, 1981; Fanning, 1981a,b; Williams, 1984; Yde, 1985; Weisberg, 1986; Yang, 1989; Jafarpur, 1991; Farghal, 1991, among others). Some of these studies are summarized in Table 5.1. The *focus* column in the following tables indicates how cohesion is interpreted in the particular study.

Table 5.1 Summary of Studies - Relation between Cohesion and Writing Quality

Researcher(s)	Date	Subjects/Texts	Focus	Findings
Witte & Faigley	1981	5 H & 5 L college essays	H & H (1976) Conjunction, reference, lexical cohes.	Significant higher frequency of conjunction/reference in H. H:Less repetition/more lexical collocation
Cooper	1984 in Hamdan 1988	400 persuasive freshman essays	H & H (1976) cohesive categories	No significant relations. H: more varied cohesive ties than L.
Harnett	1986	316 college essays	Static and Dynamic ties	Low positive correlation between counts of different ties and holistic scores
Yang	1989	2 essays	H & H (1976)	Relation between cohesive chains and writing quality
Jafarpur	1991	38 college essays (9H;12M; 17L)	H & H (1976) adap.cohesive categories	No significant relation between text quality (holistic scores) and the frequency and type of cohesive tie Significant relations were found in H texts
Neuner	1991	40 college essays (20H/20L)	H & H (1976) cohesive categories	No significant relation between frequency of cohesive ties and text level. Greater distance between cohesive items , lexical variety and maturity of lexical choice in H texts
Ferris	1994	160 essays	Syntactic and lexical items	Greater variety of lexical items in H. Positive correlation : synonymy/ antonymy and essay holistic scores Less reliance on repetition and more complex syntactic structure in H.
Engber	1995	66 college essays	lexical richness	Significant correlations between holistic scores and lexical variation

Granger & Tyson	1996	International Corpus of Learner English essay writing of native/ non.nat. 89,918 words	Connectors e.g. *however, thus, indeed, therefore etc.*	Higher frequency of complex connectors e.g. *therefore, however* in native texts More genre specific studies needed

H & H = Halliday and Hasan   *H = high rated texts; L=low rated texts*

Although the findings indicate that there seems to be no or little correlation between frequency counts of cohesion and quality of texts through the holistic ratings, the high-rated texts show a higher frequency use of lexical variation and more complex type cohesion than those in the low-rated texts. In fact, Witte and Faigley's (1981) study found that lexical cohesion alone comprised about two thirds of all the cohesive devices in all texts (showing it to be quite significant) with the high rated texts indicating more lexical density and collocations. More specifically, poor writers have fewer immediate and mediated ties, fewer types of conjunctives, and fewer third person pronouns with more redundancy without adding new information or refining meanings as better writers do. This suggests for Witte and Faigley that the poorer writers do not establish strong bonds between cohesive ties. Although this is a different concept of distance to that in the present study (where longer distances between cohesive links showed maturity in writing), researchers were beginning to focus more on the way cohesive devices function over text (e.g. Neuner, 1991; Hoey,1991a) rather than on counts. Thus, for Witte and Faigley, indicators of writing quality are the writers' invention skills rather than quantitative analyses of cohesion. Harnett (1986) comments that '...simple counts of either types or instances of all cohesive ties cannot be a completely effective index of the quality of prose' (p.151). Weissberg's (1984) finding that explicit intersentential cohesion devices were not used in almost one-quarter of the opportunities presented also confirms this and his comment, even at that time, suggests that the need to study cohesion differently.

'Although cohesion has been reported to be an important element in good writing (Witte and Faigley 1981), it should not be assumed that students will necessarily produce readable texts simply by scattering a certain proportion of repeated words or anaphoric pronouns in the topic portions of their sentences.' (p.495)

B. The Relation between Cohesion and Coherence

Since one of the main objectives in teaching/learning writing is coherence, researchers have attempted to study how the surface features of different categories of cohesion contribute to this. This is best expressed by Granger and Tyson (1996):

'...coherence should be the primary discourse consideration: no matter how much students study connectors or any other aspect of cohesion, an incoherent message

will always remain so. However, increased mastery of cohesive devices will certainly help students to express relations more clearly. We hope that heightened awareness of the semantic, stylistic, and syntactic properties of connectors will lead students to think more carefully about the ideas these connectors are linking.' (p.26)

Some studies that have attempted to find the relation between cohesion and coherence are summarized in Table 5.2.

Table 5.2   Summary of Studies - Relation between Cohesion and Coherence

Researcher(s)	Date	Subjects/texts	Focus	Findings
Using H & H	1976			
Evola & Lentz	1980	94 college essays (Arab/Farsi)	Conjunctions, pronouns, articles -holistic and frequency objective ratings	No significant relation between cohesion and coherence rated holistically and discrete point Holistic better indicator of proficiency than discrete point
Jacobs	1982	11 medical students - academic texts	Coherence: Relevance/detail	HT:relevant and detailed/MT: detailed only/LT:relevant only HT more coherent
Tireney&Mosenthal	1983	12 th graders essays	Variety of cohesion devices	Significant cohesive differences between discourse modes: more reference links in narratives/ more lexical links in exposition No significant relation between cohesion and coherence ratings
Connor	1984	6 argument college essays	Cohesion: H & H (1976) Quantity and quality - not distance	No significant relation between cohesion and coherence No differences between native and non-native use of cohesion Native texts indicated use of a variety of lexical cohesion
McCulley	1985	493 persuasive essays-high school level	Primary-trait coherence scale Variety of cohesion devices	Low partial significant relation between holistic essay score and coherence holistic score No significant relation between frequency of cohesion and coherence ratings H: more lexical features of synonym,hyponym ,collocation
Parsons	1991	8 non-native and 8 native post-graduate essays	Coherence based on Hasan's (1984) chains of cohesiveharmony	Significant higher frequency of significant interacting chains in native texts Significant relation between central token chains and essay rank scores suggesting that cohesion contributes to the coherence of texts
Hoey	1991a	2 selections textbook/ newspaper	lexical cohesion (see Chapter 7)	Lexical cohesion contributes to text coherence and text organization
Hoey	1991b	2 selections textbook/ newspaper	lexical cohesion based on Hasan's (1984) chains of cohesiveharmony	Lexical cohesion contributes to text coherence and text organization

Using Other				
Hagen	1965 in 1971	College vs professional	Transitions	No significant relation between rank order of frequency of transitions and coherence scores: transitions not necessary indicators of coherent writing
Bamberg	1984	2,698 high school essays	Holistic (1-4) coherence scale	Significant correlation between essay holistic scores and essay coherence scores
Connor & Lauer	1985	50 UK&50 US high school essays	Coherence:focus context,grammar cohesion, organization	Low positive relation between coherence and holistic essay scores with cohesion indicating the lowest coefficient
Wikborg	1985 in Hamdan 1988	144 college essays in five disciplines	Coherence: topic structuring and cohesion	Identifies problems: ambiguous and incorrect use of cohesive ties; paragraphs are incoherent

H & H = Halliday and Hasan   H=high rated texts; M=mid rated texts; L=low rated texts

It is obvious from the findings, that although cohesion devices are not necessarily indicators of coherent texts and native and non-native speakers show comparable frequency, the patterning and types of cohesion indicate more coherence and thus more proficient writing. While early work in the field found little or no correlation, work in the 1980's began to find relations between cohesion and coherence beginning with Hasan's (1984 in Hoey, 1991a) work on chains of cohesive harmony (Halliday and Hasan, 1989; Cox et al. 1990, 1991, Spiegel and Fitzgerald, 1991 in Grabe and Kaplan, 1996; Granger and Tyson, 1996; Parsons, 1996; Hoey, 1991a, b). Some drawbacks of many of the studies may result from the use of holistic ratings and to general descriptions of cohesion and coherence features. Where low correlations were found, it is noted that the researchers' method of analysis is more in depth with the features more fully described. However, most studies point to the need for further research. This is summed up by Ehrlich (1988):

> "That empirical studies have often found no correlation between cohesion
> and coherence does not necessarily reflect a lack of causal connection
> between the two. Rather, such results may merely reflect the ill-defined
> nature of cohesion norms in English discourse" (p.117)

C. Relation between Cohesion and Genre

More recent studies of cohesion have noted that findings to be valid should relate to the specific genre under analysis. Although the above studies on the relation between cohesion and writing quality and coherence are genre specific in that they deal mainly with the expository texts of EFL students, recent studies focus on contrasting the types of cohesive devices in different genres. Granger and Tyson (1996) note the following:

'Many features of language are exremely genre-sensitive, so the type of task set will significantly alter the results obtained. Therefore, if meaningful statements are to be made about difference in usage, the types of discourse under study must be comparable.' (p.18)

They further point out that the essay provides a suitable data base.

'The other obvious attraction of studying essay writing is that it provides complete texts which are particularly well suited to the study of cohesion, coherence, and other textual problems which remain prevalent at an advanced level (ibid., p.18).

Table 5.3 summarizes some of these studies.

Table 5.3 Summary of Studies - Relation between Cohesion and Genre

Researcher(s)	Date	Subjects/texts	Focus	Findings
Johns	1980	20 letters; selected reports & business texts	H & H (1976) cohesion categories	Highest frequency of lexical cohesion: letters 46%; reports: 79%; textbooks:79% Synonyms vary according to discourse type; highest freq. of reference and conjunctions in letters
Norment	1982	180 college essays - native vs non-native	cohesion	Native texts are better organized Frequency and percentage of use of cohesive devices differs in narratives and exposition and across student groups
Smith et.al.	1983	16,000 word samples:Brown English Corpus	Conjunctions	Conjunctions vary with genre Highest frequency in fiction and religion than journalism and science
Stotsky	1983	3 textbook selections/2 high school essays	H & H (1976) cohesion categories	Higher frequency of lexical cohesion in H text Limitation of H & H categories
Jordan	1984	Over 100 texts in professions	Various types of rhetorical signals	Signals vary with discourse structure and help to make texts coherent
Nunan	1995	30 graduate science reports	Coherence: cohesion & topicalisation	Inappropriate use of resources Cohesion and coherence resources of writers should be examined as they interact in discourse

H & H = Halliday and Hasan   *H = high rated text   L = low rated text*

The findings indicate that cohesive categories vary with text genre and lexical cohesion is an important resource in expository text types. Researchers advise that cohesion studies should take into account the specific discourse being analyzed (Stotsky, 1983, Harnett, 1986, Granger and Tyson, 1996). Harnett (1986) comments that researchers should not just adopt cohesion taxonomies that have been outlined for descriptive linguistic purposes (e.g. Halliday

and Hasan's, 1976) but should reconsider the ways of analyzing cohesion according to their function in compositions.

D. Summary of Studies on Cohesion

From the foregoing studies, a few points can be summarized:

1. Frequency counts of cohesion are not a necessary indicator of coherence or writing quality.
2. High and low rated texts have varied uses of lexical cohesion.
3. Genre and topic may influence the frequency and variety of lexical cohesion in texts.
4. Total dependency on holistic scoring may not reveal significant findings.
5. High-rated texts indicate denser use of cohesive ties, variety of cohesive types and less repetition.

Harnett (1986) says:
'Using cohesive ties successfully is apparently not easy. Both good and poor writers may use the same kinds of cohesive ties, but they use them differently.' (p.143)

'Cohesion is a means to an end, not the end itself. ... The success of a writer's prose depends upon much more than successful use of any cohesive devices. Nevertheless, these features and their distinct uses can help us to describe how readers understand and writers control the textual structure that express rhetorical development in written discourse.' (p.152)

Thus Granger (1996) advises that in studying learner language '...it is necessary to combine a quantitative and a qualitative approach, comparing frequency and semantic/syntactic use'(p.17). It is left for future research to explore this field further as our textual world becomes more specialized. There is a definite need for more precise methods to analyze cohesive devices in discourse more meaningfully.

VII. Studies on Arabic Speakers' English Texts

Although studies in cohesion on Arabic speakers English writing is very limited or nonexistent, some research done in the Arab world has been enlightening in indicating the various writing problems that students have. Connor (1996) in summarizing the research on Arabic students' writing mentions that '...research on writing in Arabic has focused on syntactic constructions' (p.37). These will be outlined below according to studies in 1) the Arab world and 2) Lebanon, in order to show the need for more research.

A. In the Arab World

The problem of the teaching/learning of English as a foreign language in the Arab world is best described by Bader (1992, p.223).

"Language courses, i.e. courses designed to enhance the students'
basic language skills (reading, writing, speaking, and listening)
although acknowledged by many as the most important courses
in an English department (see Jawad 1983; Munro 1983; Ruiqing

1986), have been found to be 'underrepresented' (Zughoul 1986, p.11), the 'weakest' and 'inadequate'(Ibrahim 1983, p.24, p.26)."

In reference to writing, a number of researchers and linguists have carried out studies and/or summarized the work done on Arabic speakers' texts (see for example Mattar, 1978; Kaplan, 1966, 1967, 1972; Al-Chalabi, 1984; Holes, 1984; Al Jabouri, 1984; Swales and Mustapha, 1984; James, 1980; 1990; Doushaq, 1986; Hamdan, 1988; Purves, 1988; Shakir, 1991; Sa'Addedin and Akram,1989, 1991;Kharma and Hajjaj, 1989; Connor and Kaplan, 1987; Dudley-Evans and Swales, 1980; Connor, 1996). They all argue 'that texts written in English by Arab students are generally characterized by excessive use of coordination, parallelism, repetition, and exaggeration' (Shakir, 1991, p.399) and that there is a need for more varied vocabulary and use of derivational forms (Thompson-Panos & Thomas-Ruzic, 1983) Some of these studies are summarized in Table 5.4 below.

Table 5.4 Summary of Studies on Arab Non-Native Students' Texts (in Arab World)

Researcher(s)	Date	Subjects/texts	Focus	Findings
Arab World				
Doushaq	1986	96 college essays from science and arabic majors	Sentence, paragraph and content levels	Problems in organization, unity, mechanics and cohesion both at sentential and suprasential levels
Hamdan (used H & H (1976) cohesive categories & an adaptation of Bamberg's (1983) coherence scale	1988	292 college essays	Comparison of coherence and cohesion in 2 essays:general/ major specific	Holistic ratings of coherence and cohesion higher (sig. higher correlations between coherence & cohesion) in essays on topics related to the students' majors
Khalil	1989	20 college essays	H & H (1976) and coherence (Grice,1975)	No significant relation between frequency of cohesion and coherence holistic rating Most lexical reiterations are repetitions of the same item Underuse of lexical variety
Farghal	1992	10 college	Grammatical cohesion	Teachers evaluate highly texts that show grammatical cohesion at expense of naturalness - not necessary to have explicit cohesive markers in 'good' texts

Other				
Shakir	1991	2 college essays	Evaluation of coherence	Teachers equate grammaticality of sentences and mechanics with coherence. Recommends more discourse type instruction and evaluation especially lexis and organization
Al-Abed Al-Haq	1994	62 argument essays	Language in general	Lacked organization and poor use of intrasentential and inter-sentential transitional devices and poor use of wording

H & H = Halliday and Hasan   H=high rated texts; L=low rated texts

Al-Abed Al-Haq (1994) points out that some other previous research (Shouby, 1951; Prothro, 1955; Kaplan, 1966; Atari, 1983; Onaka, 1984; Norment, 1984; Kobayashi, 1984; Oi, 1984; Kharma, 1985, 1986; and Halimah, 1991) into the problems that Arabic speaking students have in writing in English indicate the emphasis on mechanical and sentence level rather than on a more communicative discoursal level (p.315-316). Holes comments (1984 in Al-Abed Al-Haq, 1994) "... that teachers of academic writing should be acquainted with the difficulties that face the advanced Arab learners whose writing is 'relatively free of gross grammatical error' but has a 'persistently un-English "feel" to it" (p.308).

Some research has shown that Arab students' use of vocabulary and lexical cohesive devices are limited and lack variety (Mattar, 1978; Dudley-Evans and Swales, 1980; Khalil, 1989). In comparing the relative difficulty the students have with the different components of the writing skill, Al-Abed Al Haq (1994) reports:

> 'Within this continuum of difficulty, the most difficult components for the sample are ..quantity.., argumentativeness..thesis statement..whereas the least difficulty are ..unity..relevance..grammaticality. Between these two ends of the continuum fall ..cohesion..wording..and coherence' (ibid., p.312).

B. In Lebanon

Although the Lebanese language situation differs from that of other Middle Eastern countries in that students also study French as a second or foreign language along with English, many of the problems that Arab students have in their writing are applicable to Lebanon's university students and to those in the LAU/EFL Program. In EFL Programs at the university level in Lebanon, there are complaints from teachers and administrators that students' writing has an 'un English feel to it'. Two comments from Kaplan's (1966) early article are still relevant and adequately sum up this situation

> 'There is a general complaint among EFL teachers especially in the university that the students' performance in writing is not satisfactory.' (ibid., pp.3-4).

Kaplan points out that even though students may have control of the syntax,

> Students '...have still demonstrated inability to compose adequate themes, term paper theses and dissertations. Instructors have written, on foreign student papers, such comments as 'The material is all here but seems somehow out of focus'or 'Lacks organization,' or 'Lacks cohesion.' And these comments are essentially accurate. The foreign student's paper is out of focus because the foreign student is employing a rhetoric and a sequence of thought which violate the expectations of the native speaker.'
>
> (ibid., p.308)

Although the issue of interference of L1 has been questioned by many researchers including Kaplan himself (see Chapter Two), his comment is still very true of many Freshman I students at LAU (see Chapter Eleven). However, to the researchers' knowledge no studies have been carried out on students' writing in Lebanon at both the university and pre-university levels except for a few M.A. dissertations at the American University of Beirut. This sad situation is probably a result of the long civil war which lasted from 1976 to 1991, a period when discoursal research expanded in other countries. Table 5.4 summarizes the few studies carried out related to the present research.

Table 5.5 Summary of Studies on Arab Non-Native Speakers' English Texts (in Lebanon)

Researcher	Date	Subjects/texts	Focus	Findings
Carthy	1978	132 high school essays native vs non native	Transitions e.g. *however, therefore, inaddition etc.*	No significant differences in frequency of use between native non native texts More complex transitions used in H texts.
Bacha	1979	300 college students	Transitions e.g. *however, in addition, therefore, etc.*	Significant improvement on post test-objective after use of special designed material on transitions in experimental group
Khoury	1981	200 college essays	Instruction in Transitions	Significant higher frequency of transitions in essays in the experimental group

The findings indicated that high rated texts showed a more complex use of transitional words (one type of cohesion device) than the low rated texts. The studies also argue that the difficulty that Arabic students have in using transitional words is more developmental than interference from L1 and that semantically designed materials improved students' use of these devices in both an objective and composition assignment. To the researcher's knowledge, no studies on cohesion have been carried out in Lebanon.

One other type of research, however, studied the psychological and social attitudes on the learning of English (Yazigi, 1991) in the EFL Programs at both the AUB and LAU. A subsidiary finding of the study, partially related to the present one, is that although students are instrumentally motivated to learn English, their performance on a direct writing sample was rated the lowest when compared to the scores obtained on other sections of an adaptation of the IELTS proficiency test. This finding, together with those above, supports the observation that students do have problems in their writing and that there is clearly a need for research into students' writing in Lebanon. The present research on cohesion is an attempt to fill this gap.

VIII. Implications

It seems clear that cohesion, especially lexical cohesion, is a significant part of the structure of texts. Although it is controversial how it contributes to the quality and coherence of texts, there is some speculation that if different analytic methods are used, cohesion's contribution to text relations and coherence will be better understood and exploited by language teaching to help students' writing development and progress. Granger and Tyson (1996) note this need in cohesion studies:

> "There is a pressing need for large-scale studies in order to obtain a more accurate description of cohesion/coherence problems in EFL/ESL student writing." (p.18)

It has been shown from the foregoing that learners in creating text face problems at both the macro-level (over-all organization) and micro-level (sentence and clause levels). Silva (1993) notes that L2 learners' writing is relatively of lower quality especially in lexical variety and sophistication and lexical cohesion at the discourse level. Lebanese students have similar problems. Perhaps the insights from the present study in patterns of lexical cohesion in EFL texts may contribute towards helping them write quality texts and lay the foundation for further much needed research in Lebanon.

This chapter concludes the review of literature. Part Three discusses the research design and methodology: Chapter Six outlines the overall research design of the study and Chapter Seven specifically describes the lexical cohesive procedure adopted.

PART THREE: METHODOLOGY

CHAPTER SIX

RESEARCH DESIGN

"What visions, what expectations and what presumptions..."
Gibran, The Prophet

This chapter describes the research design of the study in four parts: *1) the variables, 2) the research questions, 3) the pilot study and 4) the main study.*

I. The Variables

The independent and dependent variables are detailed below.

A. Independent Variables

1. Text Level: *High, Mid and Low*

The text level is the proficiency level at which the text has been assessed by faculty.

2. Students' Study Language: *English or French*

The students' study language is the second language medium through which they completed most of their secondary education.

B. Dependent Variables

The dependent variables are concerned with the cohesive categories which are found in the students' texts according to the following *operational criteria.*

1. The frequency of the bonds in the texts when

    a) two links equal one bond
    b) three links equal one bond
The raw frequency of bonds is expressed as a percentage of the total number of cells in the text.

2. The distance of the bonds (referrred to as the *bond indicator*) as measured by the number of intervening sentences between the bonded sentences when

    a) two links equal one bond
    b) three links equal one bond
The distance of bonds is calculated as shown in Chapter Seven.

3. The frequency of the type of links as outlined in the thirteen types listed hereunder. *The raw frequency of each of the 13 types of links is expressed as a percentage of the total number of links in the text.*

Textual Link Types (In order of importance in EFL texts

a) CP1 complex paraphrase type 1
b) CP2 complex paraphrase type 2
c) CP3 complex paraphrase type 3
d) SPP simple partial paraphrase
e) SMP1 simple mutual paraphrase type 1
f) SMP2 simple mutual paraphrase type 2
g) CR1 complex repetition type 1
h) CR2 complex repetition type 2
i) CR3 complex repetition type 3
j) SR simple repetition
k) COR co-reference

Grammatical Link Types (In order of importance in EFL texts)

l) D Deixis
m) S Substitution

(Note: CP1, 2, 3 appear hereafter in tables of results and priority scales as 1 2 3 consecutively although CP3 is the highest and CP1 the lowest on the priority scale.)

II. The Research Questions

There are *four* related research questions given again below along with the two *major aims* that they were generated from (see Chapter One). (The hypotheses based on the research questions are given along with the main results in Chapter Nine.) The *minor aims* 1, 2, and 3 (see Chapter One) are discussed in Chapters Ten, Eleven, and Twelve respectively.

Major Aim 1 generated the following research question (see Chapter One):

1. Is *lexical cohesion an indicator of* (related to) **writing proficiency in the expository EFL texts in the Freshman English I Course?**

Major Aim 2 generated the following three research questions (see Chapter One):

2. Are there differences in *frequency of lexical cohesion* in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

3. Are there differences in the *distance of lexical cohesion* in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

4. Are there differences in *frequency of type of lexical cohesion* in a) the whole text and b) in adjacent sentences in holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

III. Pilot Study

The regular course work of the second semester of the academic year 1992-93 (February - June, 1993) in the EFL Program at LAU, Byblos, was used as the pilot study which included

the selection and evaluation of the students' texts in the three English courses (Freshman I, Freshman II and Sophomore Rhetoric) at four times in the semester. The pilot study is discussed in two steps: *1) the selection of the texts and 2) the evaluation of the texts.* An overview of these two steps is diagrammed in Figure 6.1 below.

A. Selection of Texts

The *selection* of the texts entailed the following:

Two sets of essays in the first half of the semester:
    One set of essays at the beginning of the semester referred to as the *Diagnostic 1 Texts*
    One set of essays at mid-semester during the regular mid-semester exams referred
    to as the *Mid-Semester Texts*

Two sets of essays at the end of the semester:
    One set referred to as the *Diagnostic 2 Texts* (a rewrite of the *Diagnostic 1 Texts*)
    One set during the regular final-semester exams referred to as the *Final-Semester Texts*

1. Rationale for Quantity of Text Samples

There were two options for the selection of the number of text samples for the analysis.

Option 1

The first option was to select two essays at each of the four exam times (Diagnostic 1 and 2, Mid and Final) having students sit for two one hour long essays, giving each student a total of eight essays to be evaluated in each of the three of the English courses. The rationale for this was first, the researcher would be more certain to obtain a sizeable sample of essays on the organizational type required; that is, *cause and effect* since choice of organizational types was given to the students at mid and final exam time.

A second reason for obtaining two sample essays at any given exam time was that this would be a more reliable indicator of the student's writing performance (White 1994; Kroll 1990a), and as there is some evidence that students may perform differently on different occasions (Ruth, 1988, p.203-4) two samples would be a better representation of the students' proficiency abilities. However, a major disadvantage would be that students may be fatigued in a three hour exam (having to do a reading comprehension component as well at mid and final exam times) which might affect their performance. Another drawback was the marking load for teachers: they would have to evaluate two essays for each student at four different times, risking fatigue and negative attitudes from markers. It was not possible to leave the evaluation until the end of the semester and correct all the essays together as would be the normal procedure for this type of writing evaluation (White 1994) since the essay writing was a crucial part of the regular course work and students expected immediate feedback.

Figure 6.1   Overview of the Pilot Study

```
                      ┌─────────────────┐
                      │   PILOT STUDY   │
                      └─────────────────┘

        ┌──────────────────────────────────┐
        │       DIAGNOSTIC  TEST 1         │───────┐
        └──────────────────────────────────┘        \
                        │  N=3O1                      \
                        ↓                              \
                   scored (LOC)                         \
                     ↙      ↘                            \
                holistic   analytic                       \
                                                           \
        ┌──────────────────────────────────┐               \
        │         MID-TERM TEST            │──────→Cohesion Analysis
        └──────────────────────────────────┘              ↗ ↑
                        │  N=301                          /  │
                        ↓                                /   │
                   scored (LOC)                         /    │
                     ↙      ↘                          /     │
                holistic   analytic                   /      │
                                                     /       │
        ┌──────────────────────────────────┐       /        │
        │       DIAGNOSTIC  TEST 2         │──────/         │
        └──────────────────────────────────┘                │
                        │  N=301                             │
                        ↓                                    │
                   scored (LOC)                              │
                     ↙      ↘                                │
                holistic   analytic                          │
                                                             │
        ┌──────────────────────────────────┐                │
        │           FINAL TEST             │────────────────┘
        └──────────────────────────────────┘
                        │  N=301
                        ↓
                   scored  (LOC)
                     ↙      ↘
                holistic   analytic
```
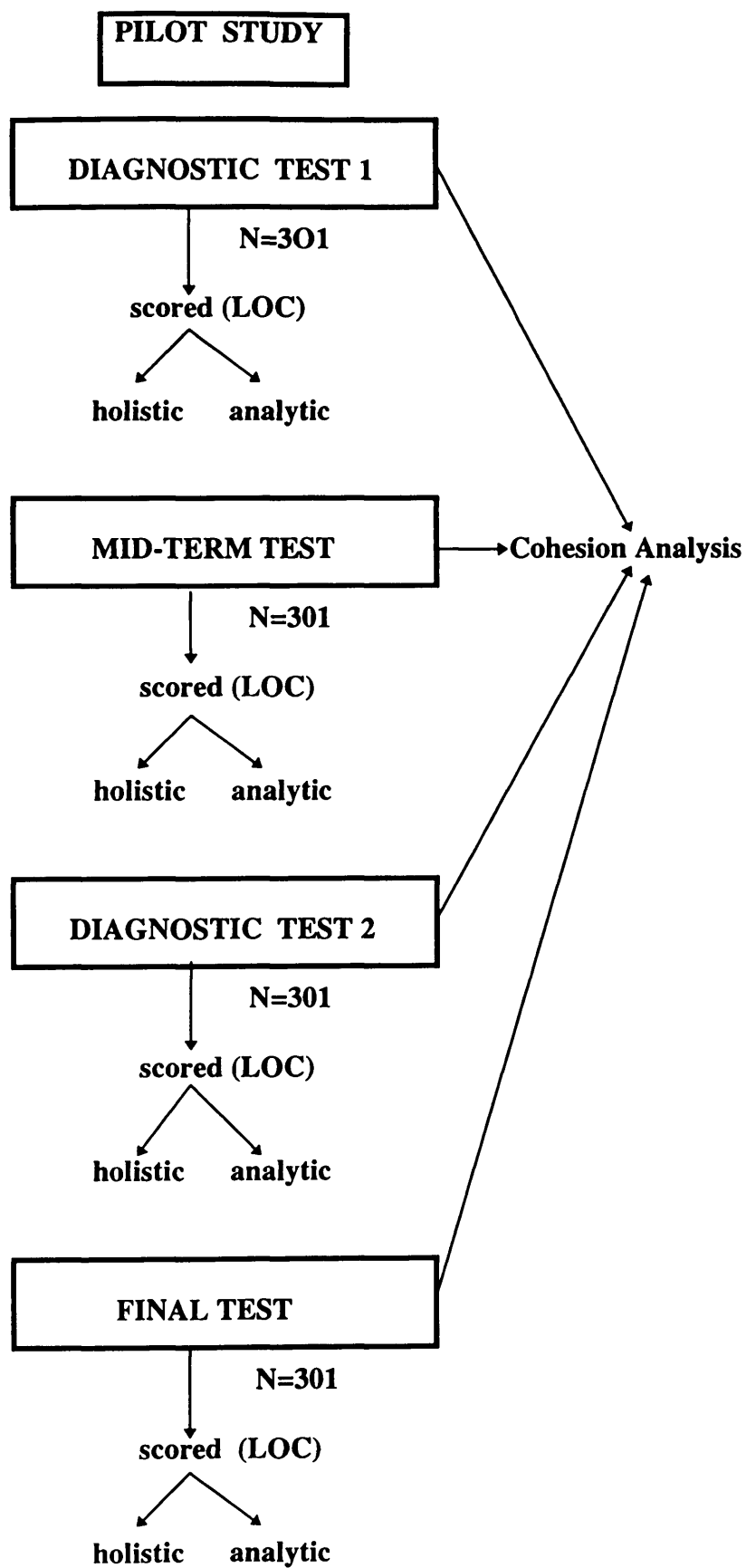
Another consideration was to select a sample of essays over two or three semesters from the same students in a longitudinal type of study to see whether the students' writing proficiency developed over a longer period of time. This would involve one cohort of Freshman English I students following their writing in the two consecutive semesters (after they had taken Freshman English I) in which they are required to take Freshman English II in one semester and Sophomore Rhetoric in another; that is, picking up their texts over three semesters. However, this was not a feasible research design since the objectives of each of the English courses are different, and also the essay topics in each semester would be different which may affect student performance, and therefore any comparison could be less valid.

Considering these drawbacks, this option was discarded.

Option 2

The second option was to select one essay at the four exam times, diagnostic 1 and 2, mid and final. Although there would be only one sample for each student at each of the four sittings, the students could concentrate on one essay topic at a time in a longer period of time, 90 minutes, which is sufficient time for the average student at the university to complete the essay. Teachers could then concentrate on evaluating fewer essays. Since the researcher wanted to analyze the *cause-effect* organizational type, there was the possibility of students not choosing the cause-effect organizational mode at either mid and final essay times (choice of two topics being given). However, since only a sample of student texts would be used for the cohesion analysis, this did not pose a serious drawback; a significant sub-sample of students was fairly certain to choose the cause-effect mode. This option was chosen at the time for the selection of the texts for the pilot study.

2. Selection of Diagnostic 1 Texts

As part of the regular Spring 1993 program, on February 20, 1993, all students who had registered in the EFL Program in the Freshman English I, Freshman English II, and Sophomore Rhetoric English classes sat for a 90 minute pre-scheduled 500-600 word essay under controlled exam conditions, referred to hereafter as the **Diagnostic 1 Text**. *The procedure for administering the Diagnostic 1 and 2 Texts in the three English courses* involved a few considerations mention below.

First, students had been told prior to the exam that the purpose of the diagnostic essay was to determine their weaknesses and strengths so that the most appropriate instruction in the classrooms could then be given. They were also informed that the essay would receive a score which would be computed as part of their final course grade. In this way, students would be

encouraged to participate and perform seriously. Neither the teachers nor the students were informed that the essays would be used later for research purposes as this might have influenced not only student performance but teacher evaluation of the texts. The researcher was interested in maintaining the regular program and thus a realistic situation. However, the teachers were involved in setting the topics and in the administrative and evaluative procedures as part of the regular program. As White points out (1994, p.252), 'Those teaching the classes must be involved in developing the test specifications.'

Second, since there is evidence that students may perform differently depending on the topic (Hoetker, 1982; Ruth and Murphy, 1988; White 1994, Hamps-Lyons 1991, Kroll 1990) each English course was given *one topic* to write on so that students' writing proficiency could be reliably compared within each course (see Appendix F). The topics were on general subjects that the students could easily relate to and not need to draw on specialized information. It has been found that general topics related to the students' own experiences are more appropriate than more specific topics for diagnostic testing purposes (White 1994, Hamps-Lyons 1991). The prompt was 'simply' and clearly written so that students would not be confused (Brossell, 1983) and an open structure used allowing students to develop their ideas according to their knowledge and experiences, best suited for diagnostic purposes (Smith et.al., 1985). Since research has also shown that the *organizational mode* affects performance (Quellmalz et.al., 1982; Carlman, 1986; Kegley, 1986) one mode, *cause-effect* was chosen for all courses. It had been found students could handle it adequately and it is one of the main types learned in the Freshman English Courses and a pre-requisite for the advanced course, Sophomore Rhetoric in argumentative writing and other types of writing at the university.

Table 6.1 indicates the organizational types used in the topics at the four essay sittings.

Table 6.1   Organizational Types Used in Essay Topics - Pilot Study

English Course	Diagnostic 1	Mid-Exam	Diagnostic 2	Final-Exam
Freshman I	Cause-Effect	Narration or Illustration	Cause-Effect	Cause-Effect or Comp./Contrast
Freshman II	Cause-Effect	Cause-Effect or Illustration	Cause-Effect	Cause-Effect or Comp./Contrast
Sophomore Rhetoric	Cause-Effect	Argumentation	Cause-Effect	Argumentation

Third, although there are individual differences, as a group ninety minutes is considered ample *time* for students to write a 500-600 word essay satisfactorily (Caudery, 1990; Kroll

1990b). Students at LAU are accustomed to test taking situations. Since their high school years, they have regularly taken exams under similar conditions. In fact, students were accustomed to sitting for the Diagnostic essay each semester as part of the regular program, but this was the first time it was carried out so rigorously. Kroll (1990b) also maintains that exam conditions do not necessarily affect students negatively and White (1994) confirms that if the prompt is clear, students will be able to perform their best .

Fourth, specially designed *exam booklets* were used so that there would be maximum objectivity in evaluating the essays: students' and raters' names could be covered during the scoring process. Also, they provided students with draft paper for any preliminary work. Very importantly, the appearance of the booklet format was more formal than previous ones and thus was likely to be interpreted by students as being more objective and more serious. In fact, many students confirmed this verbally.

Fifth, to reduce familiarity between the students and their class teachers, the latter proctored other than their own sections. Common *administrative directions* were given in all test rooms before the students began writing.

The Diagnostic 1 texts were then *scored* by the teachers and then recorded (see section B. later). Although some reseach has shown that Arab non-native writers show weaknesses when writing in the English script which has been noted to influence raters'scores (Sweedler-Brown, 1992), the essays were not typed so as to keep the evaluation as realistic as possible. The total mean scores of each of the three courses on the Diagnostic 1 essay test (Tables 6.3-6.5) clearly show that the lowest was attained by the Freshman English I students, 64.4% (referred to as a D by the university grading system) which is considered by the university an unsatisfactory performance level.

3. Selection of Mid and Final Exam Texts

Two other writing samples were obtained from the same students at mid-semester (after one and a half months) and final semester exam time (after three months) when all students have to write an essay along with a reading comprehension component. The essays were given under the same conditions as Diagnostic 1 (see section 2. earlier) and scored in the same way as the Diagnostic 1 had been (see section B. later). Since these were the mid-semester and final-semester exams, students were given a choice of two topics according to the organizational types they had studied so far in the courses (see Appendix F). It is recognized that students do not necessarily perform the same on different tasks and giving them a choice at mid and final time would give the students the opportunity to do their best. (White, 1994,

p.253). Tables 6.3-6.5 indicate the mid and final exam mean essay scores. Again, the Freshman English I mid and final mean essay score of 64.4% (when the mid and final are computed together) is the lowest in comparison.

4. Selection of Diagnostic 2 Texts

A final fourth essay sample was obtained from the same students at the end of the semester a few weeks before the final-semester exam. Students were given the same booklets they had used in Diagnostic 1 and were directed to re-write the essay on the same topic in the same booklet, hereafter referred to as *Diagnostic 2 Text*. They could refer to their first essay if they wanted to. The Diagnostic 2 essay had to be given before the final-semester essay exam as students' final exams are strictly scheduled by the University Registrar's Office leaving no time for any additional large scale exams after that date. The same procedure in administering (see section 2. earlier) and scoring the exam (see section B. later) was used as that of Diagnostic 1. Students were informed that the higher grade obtained, either on Diagnostic 1 or 2 would be calculated as part of the total course grade. Tables 6.3-6.5 indicate the mean Diagnostic 2 scores, and again, the Freshman English I mean score of 67.8% is the lowest. In fact, the mean scores of all four Freshman English I tests remained in the D range; that is, between 60-69%, which is considered unsatisfactory performance by the university.

B. Evaluation of Texts

The evaluation of the texts consisted of three steps: *1) holistic, 2) analytic and 3) cohesion.*

1. Holistic Evaluation of Texts

In light of research on holistic evaluation (see Chapter Three) an essay evaluation instrument that had been used at LAU, Byblos, for the past five years was revised for use in the present research (see Appendix E). Although it is not the purpose of this study to validate the writing evaluation criteria, the instrument was revised so that it would be a more reliable and valid one in assessing students' texts into high and low proficiency levels. This procedure follows the precedent of Mattar (1978) who used in-house evaluation criteria to determine the high and low texts before he scored the texts for coherence quality.

In order to make the scoring more objective and reliable, the following procedure was followed in the program for all four holistic essay evaluation sessions:

a. General Administrative Procedure

i.   A schedule of first and second readers for each course and section was distributed to all readers. First readers were the class teachers of the section. Second readers were those who

had been with the program the longest, were more experienced and full-time faculty teaching staff. The first and second readers remained the same for the four sessions.

ii. A few informal practice evaluation sessions were held prior to the scoring of the essays to discuss the evaluation criteria in the light of benchmark texts. Benchmark texts are those that are agreed upon by the evaluators to represent the different levels of the scoring criteria and are guides for the evaluators during the scoring process. These benchmark texts were identified from the students' exam texts.

iii. The first markers and then the second markers would indicate and cover their scores in the place provided on the back of the essay booklet. In this way, the two readers would not know the score given by the other.

iv. The results of each essay session were then recorded on the SPSS spread sheet.

The above essay evaluation procedure was not totally new to the teachers. It had been an informal practice in the program whereby teachers would on many occasions read each others' students' essays and comment on the level and others also had had practice in the procedure in institutions abroad. Thus, the teachers were familiar with the strategy when it was systematically applied.

b. Holistic Essay Evaluation Procedure

Each essay received two holistic scores out of 100 according to each of the two readers' rating of the essay. Table 6.2 represents the scoring scale used for evaluating the essays and used also by the university in all disciplines.

Table 6.2   Holistic Scoring Scale

Scale	Holistic	Letter	Rating
5	90-100	A	Excellent
4	80- 89	B	Good
3	70- 79	C	Satisfactory
2	60- 69	D	Fair
1	Below 60	F	Poor/Failing

All essays were scored according to final course objectives except for the mid-semester essay which was scored according to the material that had been covered up to that point. The final grade for each essay was the mean of the two readers' scores. If there were any discrepancies which was a difference in the level of A, B, C, D or F mentioned in Table 6.2, a third reader was required and the two closest scores were then averaged.

Tables 6.3-6.5 indicate the number of students initially registered in the three English courses and the actual number of students who sat for all of the four exams (referred to as FN

in the tables below). Out of the 366 students registered over all courses, a FN of 301 sat for all four tests, an 82% attendance. The mean scores of the essay tests are also indicated. The lowest total mean scores appeared in the Freshman English I classes, thus confirming the general weakness in writing at this level and, therefore, more justification to focus on this level in the present study.

Table 6.3 Freshman English I Population and Mean Scores of Essay Tests - Pilot Study

Section	N	FN	D1	MT	D2	F
1	18	12	70.25	61.72	71.50	72.40
2	28	25	67.52	66.74	60.26	71.32
3	17	13	59.56	59.38	67.60	60.90
4	22	18	65.91	66.81	74.70	69.40
5	11	7	60.07	62.00	66.08	65.30
6	24	20	64.39	55.10	68.36	60.80
7	27	19	62.74	64.90	66.40	64.26
Total	147	114	64.35	62.38	67.84	66.34

Table 6.4 Freshman English II Population and Mean Scores of Essay Tests-Pilot Study

Section	N	FN	D1	MT	D2	F
1	17	13	62.34	66.65	71.69	70.21
2	21	18	67.54	61.13	73.19	68.99
3	28	27	63.45	62.17	66.22	67.57
4	14	10	66.95	60.65	70.90	71.61
5	22	16	67.50	65.14	73.00	70.38
6	19	14	60.84	57.29	68.71	67.92
7	31	29	67.10	62.85	73.73	69.78
Total	152	127	65.10	62.27	71.06	69.50

Table 6.5 Sophomore Rhetoric Population and Mean Scores of Essay Tests-Pilot Study

Section	N	FN	D1	MT	D2	F
1	31	30	65.27	72.07	73.50	70.22
2	22	18	72.61	70.59	78.22	72.13
3	14	12	69.10	62.30	72.58	68.30
Total	67	60	68.99	68.32	74.77	70.22

N = Initial number of students registered
FN = Final number of students
D1 = Diagnostic 1 Essay
D2 = Diagnostic 2 Essay
MT = Mid Term Essay
FT = Final Essay

c. Correlation between Raters' Holistic Scores

Since initial selection of texts would be made from the Diagnostic 1 texts, reliability of scores was significant. Correlation statistical tests were carried out between the two raters' scores for the Diagnostic 1 texts in Freshman I and II courses to check how consistent raters were in their evaluations. Since the scores did not show a normal curve, the Spearman Rank Correlation Coefficient statistical test was carried out on the holistic scores and correlation coefficients of $\rho=.4921$ were obtained for Freshman English I and $\rho=.6675$ for Freshman English II, both at very high significance levels of $p=<.001$. Although the results are positive and highly significant, the strength of the relationship between the two raters' scores is not very strong. Thus, it could not be concluded that the mean essay scores obtained are reliable indicators of the students' writing level. More practice evaluation sessions using the above evaluation procedure would be necessary.

2. Analytic Evaluation of Texts

Each essay was also analytically rated by the EFL Program's Writing Evaluation Criteria for *language (L), organization (O)*, and *content (C)* (used interchangeably with *LOC* hereafter) on a scale of 1 to 5, with 5 representing the highest score (see Appendix E). The essays were again evaluated as final semester products except for the mid-term ones. The first and second readers' scores were then averaged. The analytic evaluation was included as often students' performance is not the same in the different writing areas (Kroll, 1990a), and it was important for the teachers to find out in which areas the students exhibit strengths and weaknesses. All scores were recorded on the SPSS spreadsheet in the computer.

3. Cohesion Analysis of Texts

A sample of ten texts chosen randomly (2 with a D grade, 2 with a C grade and 1 with a B grade) from the Freshman I (5 texts) and Freshman II (5 texts) were analyzed 1) according to the cohesive categories of Halliday and Hasan (1976). The pilot analysis indicated no differences in the cohesion patterns of the essays at the three writing proficiency levels of high (B), mid (C) and low (D). Also, considering the limitations of the cohesion taxonomy for application reviewed by researchers (see Chapter Five), Hoey's (1991a) model of analysis for lexical cohesion was selected since it shed new light on how lexical cohesion could organize and thus contribute to the coherence of larger stretches of text. Six texts were chosen at random from the Freshman English I sample - three from the Diagnostic 1 texts (holistically rated as B, C and D) and the same students' rewrites on Diagnostic 2 texts were selected (They had remained at the same level of proficiency as those of the Diagnostic 1). These six

texts were analyzed according to Hoey's (1991a) taxonomy of lexical cohesion (see Chapter Seven). The pilot analysis findings showed that there seemed to be some difference between the low and high texts in a few of the types of lexical cohesion with the high texts showing a higher frequency of use of simple and complex paraphrase (i.e. synonyms and antonyms). The B rated texts also seemed to have repetitions over longer distances. The C rated texts did not show much difference when compared with the low texts or the high texts. It became apparent during the course of the pilot analysis that the priority order of picking up the types of cohesive links between sentences according to Hoey (1991a) would need adaptation to the EFL composition genre.

IV. The Main Study

The first (Fall) semester in the EFL Program at LAU, Byblos of the academic year 1993-94 (October 1993-February 1994) was used to select the essays for the main study. This included the *selection* and *evaluation* of the students' texts in the Freshman English I at two times in the semester, one set at the beginning of the semester referred to as *Diagnostic 1 (D1)* and one set at the end of the semester referred to as *Diagnostic 2 (D2)*. Some figures related to the holistic and analytic scoring of the Freshman English II course are given in order to show the comparative performance level; however, the cohesive analysis focuses on the Freshman I texts.

The procedure for the collection of the data for the main study is discussed below in three major steps: 1) the *selection* of the texts 2) the *holistic and analytic evaluation* of these texts, and 3) the *selection* of the sample texts used *for the cohesive analysis*. (The procedure for the lexical analysis of the texts is given in Chapter Seven). An overview of these three steps is diagrammed in Figure 6.2 below which includes two independent essay samples selected from the population (step 1) of 202 students: *N=60 (step 2)* and *N=40 (step 3)*. A fourth step involved interviewing a sample of N=26 (step 4) students from the N=40 student sample who had written the texts concerning their perceptions of the success of the Freshman English I course in meeting their needs as well as their perceptions on their individual writing abilities (see Chapter Eleven). Some parallels between these perceptions and the students' writing proficiency levels could then be included in the recommendations for the teaching/learning situation (see Chapter Twelve).

A. Selection of Texts

From the results of the pilot study, the focus to base the main study on the Freshman I texts DI was confirmed. Texts, however, were collected at mid and final times and from the

two other English courses as part of the program's regular course work and some of these results will be given for comparative purposes. The selection of the texts is discussed below according to a) *the subjects and the texts, b) the rationale for the text selection, c) a description of the population and d) administering the D1 and 2 texts.*

1. Subjects and the Texts

As part of the regular EFL program, on October 23, 1993, all students sat for a 90 minute pre-scheduled 500-600 word essay under controlled exam conditions, referred to hereafter as the **Diagnostic 1** Text (**D1**). The same students sat for a similar test on the same topics (see Appendix G), hereafter referred to as **Diagnostic 2** Text (**D2**) at the end of the semester on January 17, 1994. Since the selection of the texts is related to the selection of the subjects, the selection of both subjects (hereafter referred to as *students*) and their texts will be discussed together.

2. Rationale

The *rationale* for the focus on Freshman I D1 and 2 texts is the following:

a. Most of the complaints about students' writing are at this level which the mean scores also confirm (see Tables 6.3-6.5). It would, therefore, be more to the program's benefit to attempt to study the texts at the basic level first.

b. Most students take FI in their first semester (and mainly in the Fall semester) at the university, and so there would be fewer intervening variables to account for. Texts written by those students who were taking Freshman I (a very small number) not in their first semester would be excluded from the cohesive analysis.

c. Since the present study is not a comparative analysis, but one that attempts to gain insights into student texts (at least on two separate occasions), the results would be more reliable if one topic was used on both occasions since research findings show that topic affects choice of linguistic features (see Chapter Three). Thus, the mid and final texts would have to be excluded since they are necessarily on different topics. Even if it were a comparative study, the samples to be compared would have to be written at almost the same time which is also not the case. Since it was not possible in the regular program to select two samples from students at any one time, the best alternative to obtain two samples from each student and on one topic was to select the D1 and D2 texts and exclude the others. It was not possible in the regular teaching situation to give the same topic four times in a semester in the same course to the same students. Specific details on the background of the students who wrote the texts are given below.

Figure 6.2 Overview of the Main Study

MAIN STUDY

DIAGNOSTIC TEST 1

Pop.N=202 FI -Step 1

Sample N=30 F1
N=30 FII

Sample N=40FI   Step 3
Pop.N=116 FII Step 1

Step 2 Scored (Jacobs)   Step 2 Scored (LOC)   Step 3 Analyzed

holistic   analytic   holistic analytic   cohesion (Hoey)

DIAGNOSTIC TEST 2

Pop.N=202 FI Step 1

Sample N=30 F1
N=30 FII

Sample N=40 FI   Step 3
Pop.N=116 FII Step 1

Step 2 Scored (Jacobs)   Step 2 Scored (LOC)   Step 3 Analyzed

holistic   analytic   holistic analytic   cohesion (Hoey)

Step 4 Interviews N=26

3. The Population

Table 6.6 indicates the distribution over nine sections of the total *population* of students who were attending the regular university undergraduate Freshman English I course at the Byblos Branch in the Fall Semester (October-February) of the academic year 1993-94 and the mean scores of the D1 and D2 essays. Figures indicate the total number of 261 students initially registered (N) and the final number of 202 students (FN) that sat for both the Diagnostic 1 and 2 tests, a 77.4% attendance and who formed the *population* of the main study. It is noted that there is a relatively even distribution of students over the sections. The overall mean scores of both D1 and D2 essays also show a D average which is similar to the results obtained in the pilot essays.

Although some research may indicate language differences between males and females (e.g. Freed, 1995), since the present study focuses on high and low rated texts, the gender variable is not relevant. However, in the random sampling there is a proportional sampling of males and females in the population (N=202) and the sample (N=40).

Table 6.6   Freshman I Population and Mean Scores of D1 & D2 Essays-Main Study

Section	N	FN	D1	D2
1	30	23	69.39	69.52
2	27	24	75.45	73.92
3	29	23	66.43	66.46
4	29	20	56.55	64.78
5	30	21	65.55	65.69
6	31	24	61.85	68.60
7	31	28	68.00	69.83
8	29	22	62.89	64.30
9	25	17	67.82	69.03
Total	261	202	65.83	68.74

N = Initial number of students registered
FN = Final number of students who sat for both D1 and 2
D1 = Diagnostic 1 Essay
D2 = Diagnostic 2 Essay

Table 6.7 indicates the distribution over five sections of the population who were attending the FII course in the same semester as that of FI. There was a general mean percent score of 64.78 on D1 and 70.45 on D2 which are also similar to the averages obtained in the pilot essays. Again, the total mean percent score of the FI course is lower than that of the FII.

Table 6.7   **Freshman II Population - Main Study**

Section	N	FN
1	20	16
2	32	28
3	28	22
4	29	23
5	29	23
Total	138	116

N = Initial number of students registered
FN = Final number of students who sat for both D1 and 2

4. Administering the Freshman I Diagnostic 1 and 2 Tests

The same procedure in administering the diagnostic tests was used as that of the pilot study (see section III. earlier). However, all students were given a new exam booklet in which to write their Diagnostic 2 texts so that just copying of the D1 texts would be avoided. There was little possibility that the FI students would be test wise since they had just begun their university studies and thus unaware of the pilot essay procedure.

B. Evaluation of Texts

The procedure for evaluating the texts is given in three steps: 1) *scoring the texts holistically,* 2) *scoring the texts analytically and 3) identifying the high and low texts*

1. Holistically Scoring the Texts

The purpose of holistically scoring the texts was to identify the *high* and *low* proficiency texts in a reliable and valid way as a preliminary step to the cohesion analysis. The nine faculty members who scored the texts were the regular English teaching staff in the EFL Program at LAU, Byblos. They were all experienced teachers with between 5-15 years of EFL teaching experience at LAU and/or in similar settings. Six were holders of Masters of Arts Degrees either in TEFL, Linguistics, English Literature or Communication and three were holders of Bachelor of Arts of Degrees. The holistic scoring of the texts involved two parts: *a) the scoring procedure and b) inter and intra reliability tests*

a. Scoring Procedure

Each of the FI and FII D1 and D2 texts was given two percentage scores by two readers (the class teacher referred to as *R1* hereafter, and a second teacher who was teaching another section of the same course hereafter referred to as *R2*) using similar criteria, scoring and recording procedures as those used for the pilot essays (see section III.B. earlier). The final percent score assigned to a text was the mean of the two raters' scores or the mean of the

two closest scores if a third rating was needed. It was necessary to have each text evaluated by more than one rater so that a reliable score of the text could be obtained (Jacobs et.al., 1981, referred to as Jacobs hereafter). However, since the inter-rater reliability of the pilot essays carried out on the raters' D1 FI holistic scores indicated a significant but low correlation, more practice text evaluation sessions to discuss benchmark essays were conducted. Since most of the teachers were well-informed on the evaluation procedure, these were more effectively carried out informally with individuals or small groups of teachers. All scores were typed into the computer using the SPSS spreadsheet and double checked for any errors. However, before the texts could be reliably divided into proficiency levels of high and low (a necessary pre-requisite for the cohesion analysis), two statistical testing procedures were necessary: *1) intra and inter-rater reliability tests on the holistic scores using the LOC criteria and 2) reliability and validity tests on the LOC instrument.* These two procedures are discussed in sections b. and c. below.

b. Intra and Inter- rater Reliability Tests

It was important to check whether the teachers were consistent with their own scores (*intra-rater reliability*) and consistent with each other's scores (*inter-rater reliability*) in order to confirm reliably the identification of the high and low texts (Jacobs, 1981). Since the intial selection of high and low texts would be from the D1 texts, they were the focus of the reliability tests. To test for intra-rater reliability, a random sample of 3-5 texts was then selected from each section of Freshman I D1 texts giving a total of *38* texts. These texts were given to the class teachers to re-score in the same way as in section a. above after two weeks of the initial evaluation so that there would be little memory of the papers. The first and second scores of the same teacher of the sample of 38 texts were recorded on the SPSS spreadsheet. To test for inter-rater reliability, the FI and FII D1 and D2 essay ratings of R1 and R2 were used. (A summary of the reliability statistical tests carried out is given later in this chapter, section B.3. and results are discussed in Chapter Eight.)

c. Reliability and Validity Tests on LOC

A second necessary step in ensuring that the population text scores were reliable indicators of the text levels was to check the reliability and validity of the EFL Programs' Writing Evaluation Criteria (LOC) used in the scoring. This was carried out by correlating a sample of 60 FI essay scores and 60 FII essay scores using LOC with the same sample's scores using the Jacobs' (1981) ESL Composition Profile. (The rationale for using The Jacobs' ESL Composition Profile was that it evaluated similar aspects of the writing skill that the LOC did,

had been used with Arab non-native students of English in similar settings at the Freshman level in the USA and had been tested to be a valid and reliable instrument). As was mentioned previously, the aim of the present research is not to validate the LOC instrument used, but preliminary tests on its reliability and validity would give additional information on the strength of initial ratings. The testing procedures for *reliability* and *validity* of *LOC* are outlined below.

- *Testing for the Reliability of LOC*

To check that the essay scores using the LOC criteria were reliable indicators of the proficiency levels, a random sample of 30 D1 and D2 Freshman I and II texts (the same students wrote both D1 and D2 texts in each course) giving a total of 120 texts was selected from the FI and FII population of texts respectively and re-evaluated using the Jacobs' (1981) ESL Composition Profile. This procedure is outlined below (i-v.):

i. The random sample selected is shown in Figure 6.2 (as part of step 1) and detailed below:

Freshman I   D1 N= 30   D2 N= 30   Total = 60
Freshman II   D1 N= 30   D2 N= 30   Total = 60
                                          Grand Total   120

It was decided to include the Freshman II texts in the re-evaluation so that the raters would not just focus on Freshman I but have more than one course to evaluate as the teachers in the initial evaluation had done.

ii. The 120 texts were placed into two groups according to FI and FII, but all students' names, scoring marks and indications distinguishing D1 and D2 texts were removed and texts coded. Only the course title, FI and FII, and the topic of the essays were not removed from the text booklet. The texts in each course were not put in any specific order and the D1 and D2 texts were mixed. Thus, the two new raters (referred to as *R3 & R4* hereafter) 'blindly' scored the texts which would give more objective results. The raters were also requested to score the papers in the same order as given to them by the researcher so that if there were to be any halo effects of some papers on others, they would be the same for both raters. The second set of raters had not been involved in the testing at Byblos, but had taught FI and FII in the Beirut Branch of LAU. They were also holders of M.A. degrees in Teaching English as a Foreign Language (TEFL), one from an American university and the other from a British University and both had at least 5 years of teaching English language experience at LAU, Beirut Branch, and/or at similar institutions. They were both familiar with the Jacobs' ESL

Profile and had used it in their own classes. New raters were chosen for this part of the scoring to ensure objectivity of the results.

iii. The evaluation procedure was explained to the raters and benchmark essays indicating each level for FI and FII were provided. They were also asked to grade the texts according to final course objectives. Each rater then scored the papers independently on two different occasions indicating their scores on separate sheets (see Appendix D). Two sets of scores were given for each paper: first, a holistic percentage score and second, analytic scores for each component of the writing skill *(content, organization, vocabulary, language and mechancis)* on the scale provided by the ESL Composition Profile. Raters were requested not to sum the analytic scores for the holistic score but to keep these types of scoring independent. Correlation studies would be carried out between the holistic and analytic scores to test for internal reliability of the test scores(see section B.2 later).

iv. After this re-evaluation was completed, the raters were requested to submit the scoring sheets. To check also the intra-rater reliability on the raters' holistic scores, a random sample of 10 texts was selected from each of the two courses giving a total of 20 texts for each scorer to remark holistically. This was also done about two weeks after the first re-evaluation so that raters' would have little memory of the texts. The raters were not informed that the purpose of this remarking was to test the consistency of their own evaluation.

v. All this raw data was then recorded on the SPSS spreadsheet for statistical analysis.

A summary of these procedures is given below in section B.3. and results are discussed in Chapter Eight.

- Testing for the Validity of LOC

To test the *validity* of the programs' evaluation criteria; that is 'how well the criteria was measuring what it is intended to measure' (Jacobs, 1981, p.73), five types of validity were investigated: *face, content, concurrent, construct and predictive,* detailed below (i.-v.).

i. Face Valildity

Face validity concerns 'the way the test looks to the examinees, test administrators, educators...' (Harris, 1965 in Jacobs, 1981, p.74). Jacobs' (1981) criteria establishes face validity since it aims '...to measure ability to compose written discourse and an actual sample of composing performance is required; there is thus a resulting congruence between "what we want to measure" and "what the test appears to measure" (Jacobs, 1981, p.74). Also, it 'looks like a measure of composition ability because it contains the criteria which educators have for centuries emphasized as important requisites for good writing and which mature, intelligent

readers have been shown to respond to' (ibid., p.74). The LOC criteria were considered by the teachers in the program to measure the ability to compose written discourse to contain adequate descriptive criteria. It can be concluded that both criteria have face validity.

ii. *Content Validity*

A writing evaluation instrument is said to have content validity when '...it evaluates writers' performance on the kind of writing tasks they are normally required to do in the classroom' (ibid., p.74). Both LOC and Jacobs' writing criteria also have content validity since they both evaluate the performance of EFL/ESL students' different types of expository writing which are tasks they perform in the normal foreign language classroom.

iii. *Concurrent Validity*

A writing evaluation instrument is said to have concurrent validity when the scores obtained on a test using the instrument significantly and positively correlate with scores obtained on another test that also aims to test similar skills (ibid., p.74). Examples of tests that could correlate with a writing sample such as the texts obtained in the present study might be '...measures of overall English proficiency...' such as the *final exam grade* in the English courses 'even though a composition requires a writing performance specifically' (ibid., p.74) or another sample of writing performance. Jacobs' criteria has been established to have concurrent validity; scores being highly correlated with those of the TOEFL and Michigan Test Battery (ibid., pp.74-75). "The correlation coefficients which result from the relationships between the tests can be considered to be "validity coefficients.... .60 or above provides strong empirical support for the concurrent validity....' for the instrument in question (ibid., p.75).

To test whether LOC had concurrent validity, correlations were carried out on the FI population (DI: N=202; D2: N=202) and the FI sample of texts (DI: N=40; D2: N=40) that would be analyzed for cohesion between the three sets of scores as mentioned below:

- *The holistic scores obtained from LOC on D1 and the English Entrance Exam (EEE) scores.*

- *The holistic scores obtained from LOC on D2 and the final exam grade.* All FI and FII students at the end of the semester as part of the course requirements sat for a final exam which consisted of a reading comprehension component (50% of the grade) and a final essay (50% of the grade) on which there was usually a choice of either the cause-effect or comparison-contrast organizational mode.

- *The holistic scores obtained from LOC on D2 and the final writing exam grade.* The final writing exam is part of the final exam mentioned in the foregoing point.

All the above scores were recorded on the SPSS spreadsheet for statistical analysis. A summary of the procedures is given below in section B.3. and the results are discussed in Chapter Eight.

iv. Construct Validity

Construct validity is the degree to which a test is able to distinguish among abilities in what it sets out to measure and usually referred to in theoretical terms; in this case, the theoretical construct is 'composition ability' which the instruments aim to measure. Jacobs' criteria has been researched and found to have construct validity in that significant differences were found when scores in a pre-test/post test situation and scores of graduates and undergraduates were compared. LOC criteria also have construct validity in that they distinguished among the various writing proficiency levels of high, mid and low on the D1 and D2 tests (see section B.3. later).

v. Predictive Validity

Predictive validity refers to the degree to which the writing criteria on entrance to the univeristy can predict how well the student can perform at the end of the semester or in university life by correlating the entry essay scores with either student final grades and/or Grade Point Averages (GPA's). Although pilot research results on the predictive validity of Jacobs' criteria indicated that those students on entrance with a minimum of proficiency level obtained satisfactory grades at the end of the semester, Jacobs (1981) notes that the results should be viewed with caution as there are other intervening variables that need to be accounted for. Jacobs (1981) also reports that 'Numerous studies have provided evidence that scores on English proficiency are not generally highly related to or predictive of academic grades...However, [others] have observed that tests of writing ability...seem to be better predictors of GPAs than tests of other skills...' (p.76).

To test whether LOC had any significant predictive validity, correlations were carried out on the population and the sample (that would be used for cohesive analysis) between the F1 D1 holistic scores and and the students' GPAs at the end of the same semester which are reported on in Chapter Eight.

The above tests confirmed that LOC, the program's evaluation criteria, is a reliable and valid instrument for the purposes of this study (see Chapter Eight).

d. Identifying High and Low Text Levels

After confirming the LOC instrument to be a reliable and valid one for the purposes of this study, the D1 and D2 FI texts (the focus of the study) were then identified. The four point grading scale of the university (see Table 6.2) was divided into three proficiency levels of *high*, *mid* and *low* using the scale below.

High-rated texts (HT)	- 75% and above
Intermediate (or Mid)-rated texts (MT)	- 65% - 74.9%
Low-rated Texts (LT)	- Below 64.9%

The rationale for the cut off scores was that texts with scores of 75% and above are considered 'good' writing by EFL standards in the university; texts scoring below 65% are 'poor' and texts scoring between the two are from fair to satisfactory. Also, it was more convenient for the present study to deal with a three point scale rather than a four point one.

The FI text scores were then identified as High (HT), Mid (MT) or Low (LT) on the SPSS spreadsheet from which the sample for the cohesion analysis would be selected (see section C. later).

2. Analytic Scoring

The purpose of also analytically scoring the texts for the various categories of the writing skill was a) to find if there any differences in performance that students may exhibit, b) to correlate the parts of the writing skill among each other and with the holistic scores, and c) to draw any parallels between them and the cohesion analysis results and the student interview comments. Jacobs (1981) points out that an important aspect in testing is the internal consistency or reliability of scores; that is, there should be no significant differences among the parts or between the parts and the whole score (p.71) if the test is a reliable one. The Jacobs' criteria had been researched and showed significant internal consistency.

In carrying out this procedure with the texts using the analytic criteria scale of LOC of language, organization and content on a scale of 1-5 (see Appendix E) as was done with the pilot essays, it was, however, found that the scale was too narrow for any significant results; any findings were recorded only for possible departmental use. Instead, it was decided to use the analytic criteria of Jacobs' (1981) ESL Composition Profile which has a wider score spread and would probably give more reliable results (see Appendix D). For this purpose, the random sample of 30 Diagnostic 1 and 30 Diagnostic 2 texts drawn from both FI and FII populations (a grand total of 120 texts; 60 texts from FI and 60 texts from FII) was used (see section B.c.earlier). This data was also fed into the computer for statistical analysis.

3. Summary of Scoring Procedures

A summary of the scoring procedures is given below under the focus for that particular procedure as well as any additional ones found necessary which may not have been mentioned above. The references to the results in Chapter Eight is also given according to section numbers and tables.

a. General Scoring

The following texts were scored holistically and analytically using LOC:

1. D1 (N=202) and D2 (N=202) FI texts. *(A.1. Table 8.1)*
2. DI (N=116) and D2 (N=116) FII texts. *(A.1.Table 8.1)*

The following texts were scored holistically and analytically using Jacobs' criteria. See inter, intra, internal reliability and concurrent validity tests below.

1. DI (N=30) and D2 (N=30) FI texts
2. DI (N=30) and D2 (N=30) FII texts

The holistical scores of the following texts using LOC were compared:

1. D2 (N=202) F1 and Final Exam Essay by Rhetorical Mode. *(II.A.1.b, Tables 8.1, 8.2)*
2. D2 (N=40) F1 and Final Exam Essay by Rhetorical Mode. *(II.A.1.b, Tables 8.1, 8.2)*

The analytical scores of the following texts using Jacobs' Criteria were compared:

1. Between FI D1 and FI D2 (N=30) *(III.A., Tables 8.16, 8.17, 8.18, 8.19)*
2. Between FII D1 and FII D2 (N=30) *(III.A., Tables 8.16, 8.17, 8.18, 8.19)*
3. In F1 D1 and D2 *(III.B., Table 8.20)*
4. In FII D1 and D2 *(III.B., Table 8.20)*

b. Tests for Reliability

Inter-rater reliability correlations were carried out on the raters' holistic scores:

1. D1 (N=202) FI (using LOC) *(II.B., Table 8.8 for 1 -4)*
2. D2 (N=202) FI (using LOC)
3. D1 (N=202) FII (using LOC)
4. D2 (N=202) FII (using LOC)
5. D1 (N=30) FI (using Jacobs' criteria) *(II.C., Tables 8.10, 8.11 for 6 - 8)*
6. D2 (N=30) FI (using Jacobs' criteria)
7. DI (N=30) FII (using Jacobs' criteria)
8. D2 (N=30) FII (using Jacobs' criteria)

Inter-rater reliability correlations were carried out on the raters' analytic scores using Jacobs' Criteria: (see III.C., Table 8.21)

1. D1 (N=30) FI
2. D2 (N=30) FI

3. DI (N=30) FII
4. D2 (N=30) FII

Intra-rater reliability correlations were carried out on the raters' holistic scores:

1. DI (N=38) FI (using LOC) *(II.B., Table 8.9)*
2. DI (N=10) and D2 (N=10) FI (using Jacobs' criteria) *(II.C. , Table 8.11)*
3. DI (N=10) and D2 (N=10) FII (using Jacobs' criteria) *(II.C., Table 8.11)*

Internal-reliability correlations were carried out on the following analytic scores using Jacobs' Criteria (1-4 analytic scores correlated among each other; 5-8 analytic scores correlated with the holistic scores of the same texts)

1. D1 (N=30) FI *(III.D., Tables 8.22, 8.23 for 1-4)*
2. D2 (N=30) FI
3. D1 (N=30) FII
4. D2 (N=30) FII
5. D1 (N=30) FI *(III.F., Table8.24 for 5 - 8)*
6. D2 (N=30) FI
7. D1 (N=30) FII
8. D2 (N=30) FII

The results of the reliability studies were significantly positive (see Chapter Eight).

c. **Tests for Validity**

Concurrent validity tests were carried out between the two sets of holistic scores obtained using LOC and Jacobs' criteria on the following texts:

1. D1 (N=30) FI *(II., D.1., Table 8.12 for 1 - 4)*
2. D2 (N=30) FI
3. D1 (N=30) FII
4. D2 (N=30) FII

Concurrent validity tests were carried out between the two sets of holistic scores obtained using LOC on the following texts:

1. D2 (N=202) FI and the same students' English final exam *(II.D.5.)*
2. D2 (N=40) FI and the same students' English final exam *(II.D.5.)*
3. D2 (N=202) FI and the same students' English final essay exam as a total population
    and separately by two rhetorical modes *(II.D.3.and 4., Tables 8.13, 8.4)*
4. D2 (N=40) FI and the same students' English final exam essay as a total population and
    separately by two rhetorical modes *(II.D.3.and 4., Tables 8.13, 8.14)*

Concurrent validity tests were carried out between the holistic scores of the texts below and the same students' Semester GPA scores and the analytic scores and Semester GPA's using Jacobs' Criteria:
1. D2 (N=30) FI *(II.D.6., Table 8.15 for 1 - 4)*
2. D2 (N=30) FI
3. D2 (N=30) FII
4. D2 (N=30) FII

Concurrent validity tests were carried out between the holistic scores of the texts below using LOC and the same students' EEE scores:

1. D1 (N=202) FI   *(II.D.2)*
2. D1 (N=40)   FI   *(II.D.2)*

Construct validity tests were carried out between the holistic scores using LOC obtained on the following texts:

1. DI and D2 (N=202) FI and FII   *(II.A.1.a., Tables 8.1, 8.2)*
2. DI and D2 (N=40)   FI and FII *(II.A.2.a., Tables 8.5, 8.6)*

Predictive validity tests were carried out between the holistic scores obtained on the following texts using LOC (1-2 below) and the analytic scores as a whole and each component separate (3-6 below) using Jacobs' Criteria and Semester GPA's:

1. Between FI D1 and F1 D2 (N=202)   *(II.D.8)*
2. Between FID1 and FII D2 (N=40)   *(II.D.8)*
3. F1 D1 (N=30) *(II.D.11., Table 8.15)*
4. FII D1 (N=30) *(II.D.11., Table 8.15)*

Predictive validity tests were carried out between the holistic scores obtained on the following texts using LOC and the same students' final exam scores as indicated:

1. DI (N=202) FI and English final essay *(II.D. 9)*
2. DI (N=40) FI and English final essay *(II.D.9)*
3. D1 (N=202) FI and English final exam *(II.D.10)*
4. D1 (N=40) FI and English final exam *(II.D.10)*

The results of these tests indicated that the LOC instrument was a valid one for purposes of the present study (see Chapter Eight).

C. Selection of Texts for the Cohesive Analysis

The selection of the sample of students and their texts was made at the end of the semester and consisted of three steps:

First, the FI 202 Diagnostic 1 and 202 Diagnostic 2 texts (a grand total of 404 texts) were identified according to the three proficiency levels: high, mid and low according to the scale described in section B.1.d. earlier.

Second, a stratified random sample of 20 students who had written the high-rated texts (referred to as HT hereafter) and 20 students who had written low-rated texts (referred to as LT hereafter) was selected from the FI D1 population. The initial selection of the students and their HT and LT from the Diagnostic 1 population was done in order to 1) describe the lexical cohesion on sample texts written by students who had just entered the university and so had

had no influence from either the LAU English courses or from other LAU courses, 2) to describe the same students' performance on a second sample at the end of the course (i.e. D2 texts) and 3) to compare the same students' performance on the two samples (i.e. DI and D2). The only 'treatment' all classes received during the three months was the regular course instruction which was similar in all sections (see Appendix C). Therefore, writers of both HT and LT received similar, normal instruction. It was necessary to select a *stratified random sample* of students having typical characteristics of the population of students in order for the results of the text analysis to be generalizable to the population of student texts from which the sample was selected and to similar populations in future semesters (Hatch, 1991, p.42). This selection of the stratified random sample of 40 students was based on their a) age, b) sex, c) nationality, d) entering university class, e) status at the university, f) major, g) native language, and h) study language during their secondary education. These are detailed below along with that of the population's for comparative purposes. Since the students selected are the same for both D1 and D2, characteristics will be reported according to D1.

Third, the Diagnostic 2 texts of the same 40 students were picked up irrespective of their proficiency level which gave a total of 40 texts at each diagnostic time; a grand total of 80 texts. The complete sample then consisted of forty texts, 20 HT and 20 LT on Diagnostic 1 and another 40 on Diagnostic 2 (14 of the HT on D1 remained HT on D2; 11 of the LT on D1 remained low on D2; 6 HT and 9 LT on D1 became MT on D2.) The sample of 80 texts was considered adequate for the study especially since the cohesive analysis is an in depth one.

This sample (N=80) was independent of the sample selected for the holistic and analytic text evaluations (see section IV.B. earlier) although during the selection procedure, a few students and their texts were randomly re-selected. A different sample was to ensure more objectivity in the results of the analysis.

Since the main study aimed at comparing relations and differences in the dependent variables (cohesion categories used in texts) according to the main independent variables, that of the *proficiency level* of the texts, HT and LT, and the students' *study language* used in their secondary education (English or French) at the same proficiency level, a description of the features present in the population of 202 students and the stratified random sample of 40 students will be given according to the students' writing proficiency level of their texts (HT, MT, LT). Information pertaining to the MT will be included in this section as it may be of interest to some teachers in the department but not discussed as part of the main results except

where indicated. The description of the texts selected for the main study is given according to the 1) text levels and 2) the characteristics of the students whose texts were selected.

1. Text Levels

The figures in Table 6.8 show the initial breakdown of the DI 202 texts and the total stratified random sample of the DI 40 texts according to the course sections. Figures indicate that the breakdown of the sample texts over the sections is a close approximation to that in the total population and that all sections were represented in both the population and the sample.

Table 6.8   Number of Freshman I Texts-Population and Sample by Section and Level

	N=202			N=40	
	High	**Mid**	**Low**	**High**	**Low**
1	5	8	10	4	1
2	0	3	17	0	3
3	2	10	9	1	3
4	2	11	11	2	1
5	3	18	7	2	1
6	3	4	15	1	5
7	1	10	6	0	2
8	7	10	6	4	2
9	10	10	4	6	2
Total	32	85	85	20	20

The figures in Table 6.9 detail the percent distribution of the text population, DI 202 and D2 202, and the text sample, DI 40 and D2 40 texts, by text level. For purposes of the main study, the researcher was interested in comparing only the HT and LT on DI and, therefore, the sample for DI only indicated these two levels. Although the selection of the HT in the sample gave a higher proportion (50%) when compared to that in the population (15.8%), this was necessary so that an equal number of HT could be compared with the LT in the analysis of cohesion.

However, a significant point to be noted in Table 6.9 is that about 50% of the LT in both the population and the sample remained LT in Diagnostic 2 Texts, quite a high percent of texts to indicate no improvement in holistic scores.

2. Characteristics of the Students Who Wrote the Texts

The characteristics of the students in the population and the sample are given simultaneously so that a comparison of the representation of these characteristics in the sample can be made. There was a high degree of similarity of student characteristics between the population and the

sample. *Demographic and educational* student characteristics are given according to the proficiency level of the rated texts that the students wrote.

Table 6.9   Percent of the Population and Sample of FI DI & D2 Texts-By Level

| | Diagnostic 1 | | Diagnostic 2 | | | | | |
| | | | High | | Mid | | Low | |
	N	%	N	%	N	%	N	%
Population								
High	32	15.84	17	53.15	11	34.38	4	12.50
Mid	85	42.08	17	20.00	58	68.24	10	11.76
Low	85	42.08	6	7.06	34	40.00	45	52.94
Total	202		40	19.80	103	50.99	59	29.21
Sample								
High	20	50	14	70.00	6	30.00	0	00.00
Low	20	50	0	00.00	9	45.00	11	55.00
Total	40		14		15		11	

a. Demographic Background of the Students

The following demographic information on the students' *age, sex, nationality* and *first language* was obtained (Bacha, 1994) and some confirmed by the University Registrar's Office. Total figures are given first in the tables so that an overview is readily seen and then sub totals according to levels will be given unless otherwise indicated.

i. Age of the Students

The figures in Table 6.10 indicate that most of the population and the sample were within the 18-20 age range who also produced a higher percent of high texts (HT) than low texts (LT) compared to that of the older group. The students between 21-25 wrote less than 15% of the texts with the proportion of low texts (LT) being higher than the high texts (HT) in both the population and sample. Most of the students enter the university between the ages of 18 to 20, a minority later.

Table 6.10   Percent of Freshman I Population and Sample - By Age

| | 18-20 | | 21-25 | |
	N	%	N	%
Pop. N=202				
Total	175	87.1	27	13.4
High	31	96.9	1	3.1
Mid	75	88.2	10	11.8
Low	69	81.2	16	18.8
Sample N=40				
Total	37	92.5	3	7.5
High	19	95.0	1	5.0
Low	18	90.0	2	10.0

ii. Sex of the Students

The figures in Table 6.11 indicate that males made up a little less than two thirds and females a little over one third in the population and the sample. In both the population and sample, more males (approximately 70%) than females produced LT. This also confirms statistics reported by the University Admissions' Office (Academic Statistics, 1994-95).

Table 6.11   Percent of Freshman I Population and Sample - By Sex

	Male		Female	
	N	%	N	%
Pop. N=202				
Total	129	63.9	73	36.1
High	14	43.8	18	56.3
Mid	53	62.4	32	37.6
Low	62	72.9	23	27.1
Sample N=40				
Total	21	52.5	19	47.5
High	7	35	13	65
Low	14	70	6	30

iii. Nationality of the Students

The figures in Table 6.12 indicate that students with a Lebanese nationality make up approximately 80% of the population and the sample. Those with a dual or other nationality make up the rest with similar percentages between the different levels of the texts in the population and sample. Having a higher percent of Lebanese is understandable since many foreign students had left Lebanon due to the political situation in the country.

Table 6.12   Percent Freshman I Population and Sample - By Nationality

	Total Population N=202						Sample N=40			
	High		Mid		Low		High		Low	
	N	%	N	%	N	%	N	%	N	%
Lebanese	25	78.1	68	80	72	84.8	16	80	17	85
Lebanese American	1	3.1	1	1.2	0	0	0	0	0	0
Lebanese Australian	1	3.1	4	4.7	0	0	1	5.3	0	0
Lebanese Belgian	0	0	1	1.2	0	0	0	0	0	0
Lebanese British	0	0	1	1.2	2	2.4	0	0	1	5
Lebanese Bulgarian	0	0	0	0	1	1.2	0	0	0	0
Lebanese Canadian	0	0	2	2.4	2	2.4	0	0	0	0
Lebanese French	1	3.1	1	1.2	1	1.2	0	0	0	0
Lebanese Ghanian	0	0	1	1.2	1	1.2	0	0	0	0
Lebanese Greek	2	6.3	3	3.6	1	1.2	1	5.3	1	5
Lebanese Italian	0	0	0	0	1	1.2	0	0	0	0
Lebanese Syrian	0	0	1	1.2	0	0	0	0	0	0
Lebanese Venezuelan	0	0	1	1.2	0	0	0	0	0	0
Palestinian	1	3.1	1	1.2	1	1.2	1	5.3	0	0
Syrian	0	0	0	0	3	3.6	0	0	1	5
UAE	1	3.1	0	0	0	0	1	5.3	0	0
Total	32		85		85		20		20	

iv. First Language of Students

The nationality of a student does not necessarily mean that the language of the associated country is the student's first language. As described in Chapter One, the language situation in Lebanon is quite complex.

The figures in Table 6.13 indicate the three major first languages spoken in Lebanon (*English, French* and *Arabic*) and show that Arabic is the native or first language of over 85% of the population and sample and approximately 90% of the students who produced both the HT and LT in the population and sample. English is the first language of approximately 2% of the population and sample and French of approximately 2% and 5% of the sample. The latter difference is minimal especially since speakers of English and French as a first language are almost certainly fluent in Arabic or bilinguals.

The first languages under *other* in Table 6.13 are 1 Greek (HT in Population), 1 Twi (from Ghana) (MT in Population), 1 Italian, 3 Armenian and 1 Bulgarian (LT in Population) speakers respectively.   The *other* first language in the sample is 1 speaker of Italian in the LT.

Table 6.13   Percent Freshman I Population and Sample - By First Language

	English		French`		Arabic		Other	
	N	%	N	%	N	%	N	%
Pop. N=202								
Total	4	1.98	4	1.98	191	94.55	7	3.47
High	1	3.13	1	3.13	31	96.88	1	3.13
Mid	3	3.53	1	1.18	81	95.29	1	1.18
Low	0		2	2.35	79	92.94	5	5.88
SampleN=40								
Total	1	2.5	2	5	34	85	1	2.5
High	1	5	1	5	15	90	0	0
Low	0	0	1	5	19	90	1	5

Percentages may add up to over 100% as some students are bilingual.

b. Educational Background of the Students

The educational background of the students is given according to *1) entering class, 2) status, 3) major, and 4) study language.*

i. Entering University Class

The entering university class is either the the *Freshman* class or the *Sophomore* class depending upon whether the student is a holder of the High School or Baccalaureate Part II Degrees respectively. Most of the students have completed their secondary education in privately run schools (see Chapter One) and are holders of either the French or Lebanese Baccalaureate Part II in which case they would follow a Bachelor of Arts or Science

B.A./B.S.) Program entering the Sophomore class. Holders of a High school Certificate or the Lebanese Baccaleaureate Part I are entitled to follow an Associates of Arts or Science (A.A./A.A.S.) course and enter the Freshman class.

During the students' first year at the university (whether Freshman or Sophomore entering), all students are required to take general college course requirements and so do not normally embark on their major studies until the second year of university work. Thus, students in general have almost similar course work. Freshman I is taken in the first year during the first semester and it is typical to find both Freshman and Sophomore entering students, i.e. those following a BA/BS or AA/AAS degree in the same classroom.

The figures in Table 6.14 indicate that the sample is representative of the population with the Sophomore class percentage being higher than that of the Freshman class in all cases but one where it was equal. However, as sometimes happens, a few students would delay registering for English courses until their Junior (second or third) or Senior (third or fourth) year either due to course scheduling conflicts or fear of taking an English course that they feel weak in and scoring a low final grade in the course. Because the number of such cases is small, they were not selected in the sample.

Table 6.14   Percent of Freshman I Population and Sample - By Entering Class

	Freshman		Sophomore		Junior		Senior	
	N	%	N	%	N	%	N	%
Pop. N=202								
Total	88	43.6	110	54.5	3	1.5	1	0.5
High	15	46.9	17	53.1	0	0	0	0
Mid	40	47.1	43	50.6	2	2.4	0	0
Low	33	38.8	50	58.8	1	1.2	1	1.2
Sample N=40								
Total	19	47.5	21	52.5	0	0	0	0
High	9	45	11	55	0	0	0	0
Low	10	50	10	50	0	0	0	0

ii. Status of Students

As in most American universities, students have the choice to follow a course of study on either a full or part time basis. A *full time* student must be registered for a minimum of 12 hours (referred to as credit hours) of courses per week in each semester (a semester being 15 weeks long) and a *part time* student carries any number of credit hours less than that. Most students are registered for 5 courses or 15 credit hours per semester (10 courses or 30 credit hours in the two semesters in an academic year; one course is usually 3 credit hours)

The figures in Table 6.15 indicate that approximately 95% of the students in the population and the sample and according to the different text levels are full time students.

Table 6.15   Percent Freshman I Population and Sample - By Status

	Full Time		Part Time	
	N	%	N	%
Pop. N=202				
Total	195	96.53	7	3.47
High	31	96.88	1	3.12
Mid	80	94.12	5	5.88
Low	84	98.8	1	1.20
Sample N=40				
Total	39	97.5	1	2.5
High	19	95	1	5
Low	20	100	0	0

iii.   Majors of the Students

The figures in Table 6.16 indicate the School in which the population and the sample are following a course of study. The university has three major schools: The *School of Arts & Sciences,* The *School of Engineering and Architecture* and The *School of Business.* In both the population and the sample as a total and by level of the texts, the highest percentage of students were following a course of study in The School of Arts & Sciences, the second highest in The School of Engineering and Architecture and the third in The School Business.

Table 6.16   Percent of Freshman I Population and Sample - By School

School	Total		High		Mid		Low	
	N	%	N	%	N	%	N	%
Pop. N=202								
Arts & Sciences	82	40.59	15	46.88	39	45.88	28	32.94
Engin. & Arch.	66	32.67	10	31.25	29	34.12	27	31.76
Business	54	26.73	7	21.88	17	20	30	35.29
Sample N=40								
Arts & Sciences	22	55	13	65			9	45
Engin. & Arch	13	32.5	5	25			8	40
Business	5	25	2	10			3	15

iv. Study Language of the Students

Since the present study also focuses on differences between the French or English educated students' performance in cohesion according to high and low rated texts, the stratified random

sample had to include a representative proportion of French and English educated students at each level as that of the population.

The figures in Tables 6.17 and 6.18 indicate the percentages of the population and sample that are French, English or Other Educated. The word *most* indicates that most or all of the students' secondary education was in the language shown. The word *some* indicates that both English and French are used as a medium of instruction although in different proportions depending upon the school in question. The word *least* indicates that students use it minimally as a medium of instruction and/or study the language for only a few hours per week.

A close look at the tables shows that in both the population and sample approximately 50-60% of the students are *French* educated, 25-35% are *English* educated, 15-18% are *Arabic* educated and 0-2% are *other* educated.

Table 6.17 Percent Freshman I Population and Sample - By Study Language

	English		French		Arabic		Other	
	N	%	N	%	N	%	N	%
Pop. N=202								
Most	52	25.75	129	63.86	37	18.3	4	1.98
Some	50	24.75	21	10.40	87	43.07	3	1.49
Least	87	43.07	32	15.84	60	29.70	9	4.46
None	13	6.44	20	9.90	18	8.91	186	92.08
Sample N=40								
Most	14	35.00	20	50.00	6	15.00	0	0
Some	11	27.50	5	12.50	15	37.50	0	0
Least	13	32.50	9	22.50	18	45.00	2	5
None	2	5.00	6	15.00	1	2.00	38	95

When the study language of the students was considered by level of the texts, the figures in Table 6.18 in both the population and sample indicate that there was a higher percentage of English educated students producing the HT, with the French and Arabic educated producing a higher percentage of the LT. This is probably to be expected. (Percentages may add up to more than 100 since some students used any of the languages equally as a medium of instruction in their high school studies.)

One of research questions is whether or not English or French as a medium of instruction in the students' pre-university education affect their performance in lexical cohesion? (see Chapter Nine).

Table 6.18 Percent Freshman I Population and Sample - By Study Language and Level

	English		French		Arabic		Other*	
	N	%	N	%	N	%	N	%
Pop. N=202								
High								
Most	13	40.6	16	50.0	2	6.3	0	0
Some	11	34.4	2	6.3	17	53.1	0	0
Least	8	25	8	25.0	10	31.3	5	15.6
None	0	0	6	18.8	3	9.4	27	84.4
Mid								
Most	28	32.9	54	63.5	13	15.3	1	1.2
Some	15	17.6	11	12.9	39	45.9	1	1.2
Least	39	45.9	14	16.5	26	30.6	3	3.5
None	3	3.5	6	7.1	7	8.2	80	94.1
Low								
Most	12	14.1	58	68.2	22	25.9	3	3.5
Some	23	27.1	8	9.4	32	37.6	2	2.4
Least	40	47.1	11	12.9	24	28.2	1	1.2
None	10	11.8	8	9.4	7	8.2	79	92.9
Sample N=40								
High								
Most	9	45.0	8	40.0	2	10.0	0	0
Some	6	30.0	1	5.0	10	50.0	0	0
Least	5	25.0	7	35.0	8	40.0	2	10.0
None	0	0	6	20.0	0	0	18	90.0
Low								
Most	5	25.0	12	60.0	4	20.0	0	0
Some	5	25.0	4	20.0	5	25.0	1	5
Least	8	40.0	2	10.0	10	50.0	0	0
None	2	10.0	2	10.0	1	5.0	0	0

* *Population: HT = 5 Spanish (least)*
MT= 1 Spanish (least), 1 Italian (some), 3 Armenian
(1 most, 2 least)
LT = 2 Italian(some), 1 Spanish(least), 1 Armenian
(most), 1 Bulgarian (most),1 Portuguese (most)
* *Sample: HT = 2 Spanish (least) LT = 1 Italian (some)*

The figures in Table 6.19 indicate the final number and percentage of students selected who wrote the Diagnostic 1 texts (D1) by level, and who had *most* of their school studies in the medium of English or French. The breakdown of the study language is also indicated for the same students' Diagnostic 2 texts (D2) by level. This represents the sample of texts used for the lexical cohesion analysis.

Table 6.19   Percent of Freshman I Final Sample - By Study Language at the Same Level with Emphasis on English or French Educated

	English		French	
	N	%	N	%
Diagnostic 1 +				
High	11	55	9	45
Low	5	25	15	75
Diagnostic 2 ++				
High	8	57.14	6	42.86
Mid	5	33.33	10	66.67
Low	3	27.27	8	72.73

+ N=40   ++ N=40

This chapter outlined the methodology in the selection and evaluation of the student essays and the final sample chosen for the cohesion analysis. It also outlined some necessary reliability and validity testing procedures and the need for them. The results of these procedures are reported and discussed in Chapter Eight.

The second and major part of the evaluation of the texts is the cohesion analysis. The procedure is outlined in Chapter Seven.

CHAPTER SEVEN

THE PROCEDURE OF COHESION ANALYSIS

"...you are as weak as your weakest link...
You are also as strong as your strongest link."
Gibran, The Prophet

This chapter outlines the procedure used in the analysis of the cohesion in the sample of student texts according to three parts: 1) the *rationale* for the choice of Hoey's (1991a) lexical cohesive categories, 2) a description of Hoey's (1991a) *lexical cohesive categories* and analytic procedure and 3) a description of the *adapted cohesive categories* and analytic procedure based on the former that was used in the main study. The chapter concludes with the limitations of the study. (The reference *Hoey* will be used interchangeably with *Hoey, 1991a* hereafter).

I. Rationale for Adopting Hoey's (1991a) Lexical Cohesion Analysis

The major part of the research in cohesion studies in texts has attempted to find some relation between cohesion and coherence, between cohesion and quality of writing and between cohesion and genre (see Chapter Five). The majority of the studies have used Halliday and Hasan's (1976) cohesive categories, which were later expanded (Halliday and Hasan, 1989). Although some studies have shown positive results and many interesting findings have emerged, there is an implication in much research that more rigorous research needs to be done to show the contribution of cohesion in texts. Hoey (1991a) claims, based on work done by previous researchers (Phillips, 1985; Hasan, 1984; Winter, 1974, 1979) that cohesion does contribute to sentence relationships, text organization and text coherence. However, he sees the need for a way to describe how it does so. He claims that it is the patterning of lexical repetitions that creates a large portion of the cohesion and coherence of the text and sets out a method of analysis within a theory of language. Hoey's (1991a) cohesion criteria are both original and practical and offer new insights for the teaching/learning of writing. Apparently, lexical repetitions have not been researched in non-native students' texts with Arabic as the first language. It seemed significant to consider lexis as creating cohesion, even Halliday and Hasan's cohesive categories devote a large percentage to it - 48% (ibid., 1976), and the research in the 80's and 90's is increasingly attesting to the importance

of lexical studies at the discourse level (see Chapter Five). Hoey's comment summarizes the approach.

> 'What distinguishes it from previous studies of cohesion is that the attention
> is not primarily on itemizing cohesive features but on observing how they
> combine to organize text' (1991a, p3).

Although the texts that Hoey focuses his analysis on are mature pieces of writing (that is, one taken from a magazine article and the other from a textbook, both written by native speakers of English) the approach is specifically replicable on expository texts such as those used in the present study. Also, Hoey provides an in-depth analysis of two texts which could be used to compare the results, if only in a preliminary way, with those obtained in the present EFL student texts even though an adaptation of the criteria is used. Also, Hoey's (1991a) ultimate aim in coming up with an analytic procedure was to see how cohesion contributes to text coherence, how sentences are related to each other and to the larger organization of text, insights from which the present study draws (see Chapter Ten).

Also, the significance of this new approach in cohesive analysis (specifically the bonding) to the teaching of EFL writing in identifying and producing topic opening and topic closing sentences, and in forming a variety of sub-texts and/or summaries from the original texts, seemed to open up new insights.

Thus, this new approach offers something significant to previous research on the relation between cohesion and quality of writing, the relation between cohesion and coherence, and the differences in cohesion patterns at different writing proficiency levels which the present study is investigating with different emphases. Hoey's sub-title, 'A way forward' sums up the rationale for the choice of cohesive categories (1991a, p.25). These categories along with the procedure of the analysis are explained below.

II. Lexical Cohesive Analysis (Hoey, 1991a) Procedure

For the best understanding of the analysis, the reader is referred to Hoey's (1991a) book in which he presents a detailed and lengthy analysis of one text over four chapters. However, for purposes of this study, an attempt will be made to outline Hoey's approach under the following headings:

- Lexical Cohesive Criteria
- Data
- Links
- Net of Bonds
- Significance of the Net of Bonds
- Bonding and the Reader and Writer Creativity

Since all the following information is taken from Hoey (1991a) often only page numbers will be given as references in this section. Although material is often quoted, sometimes the material has been re-organized. Since the aim was to outline the analysis as clearly as possible, Hoey has been quoted at length in this chapter and most of the examples are taken from his (1991a) book.

A. Lexical Cohesive Criteria

Below are the nine different types of *lexical repetition* in order of priority in identification and selection from the texts and recording with their symbols, definitions (taken from the glossary of Hoey's book), and examples based on two texts used by Hoey.

Lexical Repetition
1. **sr**   simple lexical repetition
2. **cr**   complex lexical repetition
3. **smp**   simple mutual paraphrase
4. **spp**   simple partial paraphrase
5. **cp**   complex paraphrase

Non-lexical repetition
6 **s**   substitution
7. **co-ref** co-reference
8. **e**   ellipsis
9. **d**   deixis

    *   arguable case (according to criteria)
    +   arguable case (discourse external)

Hoey defines repetition as " ...the occurrence of one or more items in a sentence that by themselves tell the reader or listener nothing new but reinstate some element(s) from earlier sentences so that something new can be said about them" (p.268). He also discusses the difference between **text-forming repetition** and **chance repetition** in which two criteria distinguish these two types. This difference is relevant in the analysis:

1. *Text repetition* is "a pair of lexical items [that] both refer to the same 'object' (real or imaginary)..." whereas *chance repetition* "is taken to be repetition where the only common ground is the choice of the same lexical item" (p.56) and thus omitted from the analysis. When two lexical items are connected, they are said to be linked.. We shall term both lexical [numbers 1 to 5 above] and non-lexical [numbers 6 to 9 above] cohesive relations *links"* (p.51). Hoey defines a link as "... a connection by repetition between items in a text. If one item in one sentence repeats an item in another sentence, then the sentences are said to be linked" (p.266).

The focus of the study is on open-set lexical items and not repetition between grammatical items such as determiners, prepositions, auxiliaries, negatives, co-ordinators, subordinators, sentence conjunctions (or conjuncts), sub-modifiers or particles. The exclusion of these is for analytic reasons and not because they may not contribute to the connectedness between sentences (p.53).

2. Text repetition is *contextual*, unlike chance repetition. Hoey gives three criterial questions that should be asked of each repetition link:

> 'a. Do they have common or related contexts? or
> b. Do the items share common relationships with neighboring
>   lexical items? or
> c. Is there whole or partial parallelism between the contexts of
>   the items?' (p.57)

He also provides flow charts to help the researcher justify any particular choice (pp. 58-60, 68). He makes a qualification to the analysis in that 'In a long text, the contextual criterion can be difficult to operate, particularly if certain words are recurring with great frequency. It is, therefore, necessary to add an important rider to this criterion, namely, that if a lexical item appears for the third (or more) time in a text, it is only necessary to establish a contextual connection with *one* of the previous occurrences for the item to be treated as forming a repetition link with *all* previous occurrences' (p.57). This is the first time the 'link triangle' is introduced which summarizes the foregoing and can be used in identifying simple and complex lexical repetition as well as simple and complex paraphrase. This is diagrammed below in Figure 7.1 (Hoey, 1991, p.57).

Figure 7.1   The Link Triangle

a
b ———————————— c
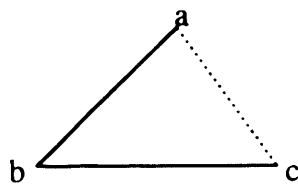
The line from a to b indicates 'repetition established'
The line from b to c indicates 'repetition established'
The dotted line from a to c indicates 'treated as repetition'

Hoey, however, minimizes the concern that questions the subjective element that may be present in deciding whether two repetitions belong to the same context by saying that "contextual questions can only be answered as matters of judgement; clearly, there is plentiful scope for dispute over the ways these questions might be answered. Also, they may be valuable in manual analysis but they are really no use for automatic analysis. Again, therefore,

we emphasize that all the evidence points to chance repetitions forming a small and insignificant proportion of the lexical repetitions identified" (p.57). This is reassuring to researchers who may be analyzing large stretches of text as is the case in the present study.

Another qualification is made by Hoey: "Under the heading of repetition we have included a range of lexical relationships, but the controlling requirement has been that the later item must contain the same information as the earlier. Thus, in our terms, a paraphrase has only been considered a true paraphrase if the items under consideration have been interchangeabale in the context..." (p.69). Hoey gives the example in this context of the text 'Drug-Crazed Grizzlies' (see below for copy) where there is a repetition between **bears** (sentence 1) and **animals** (sentence 4) as the second or later item, animals, contains information that is included in the first item, bears. However, he points out that if the items were reversed in the text, it may be doubtful whether they are interchangeable. Another example is **scientists** (sentence 2) and **biologists** (sentence 4) in which it is pointed out "...that we cannot affirm with confidence that they both have identical referents, and so no link is established" (p.70). Thus, "...the crucial feature is the common referent, not the change in method of referring. In order to accommodate these cases, in the event of a 'link triangle' not operating, we will say that if, and only if, two items are interpreted as having identical referents they will be treated as repetitions - even though they are either unrelated as lexical items (co-reference, as in **Augustus** and the **Emperor**), or related as superordinate to hyponym (hyponymic repetition, as in **scientists** followed by **biologists**)" (p.70).

The following are the different types of repetition links used by Hoey in the analysis with a description of the procedure for identifying and recording the links. All links are anaphoric; that is, they refer back to previous items in the text. Conjunctions, collocations and certain types of reference items have been excluded. Since the examples will be drawn from the passage Hoey uses to introduce the procedure he will use, it is reproduced below. The sentence numbers are indicated before each sentence. The text will be referred to as the *Bear Text* hereafter.

Drug-Crazed Grizzlies (or *Bear Text*)

1 A drug known to produce violent reactions in humans has been used for
  sedating grizzly bears *Ursus arctos* in Montana, USA, according to a
  report in *The New York Times*.
2 After one bear, known to be a peaceable animal, killed and ate a camper
  in an unprovoked attack, scientists discovered it had been tranquillized
  11 times with phencyclidine, or 'angel dust', which causes hallucinations
  and sometimes gives the user an irrational feeling of destructive power.
3 Many wild bears have become 'garbage junkies', feeding from dumps

around human developments.

4 To avoid potentially dangerous clashes between them and humans, scientists are trying to rehabilitate the animals by drugging them and releasing them in uninhabited areas.

5 Although some biologists deny that the mind-altering drug was responsible for uncharacteristic behaviour of this particular bear, no research has been done into the effects of giving grizzly bears or other mammals repeated doses of phencyclidine.

(from 'Green Piece', *BBC Wildlife*, March 1984, Vol.2 No.3:160, qtd. in Hoey, 1991a, p.35)

1. Simple Lexical Repetition (sr)

Simple lexical repetition "...occurs whenever a lexical item is repeated with no variation other than that allowed by the item's grammatical paradigms; e.g. *woman-women*" (p.268). In the Bear Text, "*bears* in sentence 5 is a simple lexical repetition of *bears* in sentence 3. *Bear* in sentence 5 is also a simple lexical repetition of *bears* in sentence 3, ..." (p.53). That is, items which are in a relationship of simple lexical repetition belong to the same word class. *Simple lexical repetition* and *simple repetition* are used interchangeably in the present study.

Although researchers note that words depend upon the context for their meanings (Coirer, 1991; McCarthy, 1991; Sinclair, 1994, Coulthard, 1994b) Hoey points out that in context two similar words may not really have the exact same meaning and even change in meaning as the text develops. He refers to the reasons for this as 'drift' and 'polysemy' (Carter, 1987 in Hoey, 1991a, p.54) and 'collocational profiles' (Sinclair, 1988b in Hoey, 1991a, p.54). However, he does not find this a significant drawback in the analysis, as he points out that "Since the analysis we propose takes three links between sentences as the minimum basis for making a connection, a shared collocational environment is in effect required before a link is treated as significant and, therefore, the likelihood is that markedly different senses of a lexical item will not be picked up in our analysis" (p.53).

Also, there may be some question as to whether words belong to the open or closed set of words e.g. *according to* and *particular*, but again this is not of importance "...since the stray doubtful case will normally cease to matter once ...clusters are identified...it is sufficient to ensure that the main grammatical items are excluded" (p.55).

2. Complex Lexical Repetition (cr)

Complex lexical repetition "... occurs whenever two items share a lexical morpheme but differ with respect to other morpheme(s) or with regard to their grammatical function; e.g. *argue-argument, meeting* (vb)-*meeting* (nn)' (p.268). That is items in this relationship share the same text meaning but may belong to different word classes or differ in meaning by the

addition of prefixes or suffixes. This category also includes "...the majority of antonyms, for example, **happy, unhappy; audible, inaudible; contented, discontented**" (p.64). *Complex lexical repetition* and *complex repetition* are used interchangeably in the present study.

In the Bear Text, "...an example of the first type is *drug* (sentence 1) and *drugging* (sentence 4), and of the second, *humans* (sentence 1) and *human* (sentence 3)" (p.55). However, as Hoey points out, the lexical item *human* is a marginal case since it can also enter into simple repetition with humans (sentence 4) (p.55). If it did, and there was a choice between selecting the link as a simple repetition or complex repetition, according to the selection priority noted earlier, the link would be recorded as a simple repetition one.

3. Simple Paraphrase (sp)

Simple paraphrase "... occurs whenever a lexical item may substitute for another in context without loss or gain in specificity and with negligible change in the meaning of the clause in which it is placed. Another name for this relationship of items is synonym" (p.268) as in 'Hasan's *synonymy*' (1984 in Hoey, 1991a, p.63), but Hoey stresses the importance of context in making or negating the relation. For example, "**Statesman** and **politician** might consititute a paraphrase in one place and be contrasted in another" (p.63). He also refers to the work of McCarthy, the implication of which is that "in the course of a spoken text there may be a drift from the one situation to the other" (1987 in Hoey, 1991a, p.63).

Hoey mentions that the conditions stated above may involve subjective decisions; however, he tries to outline procedures that would 'exclude' rather than 'invite' doubtful cases. He qualifies the analysis procedure of identifying simple paraphrase links by first stating that, "The same qualification regarding grammatical paradigms applies to paraphrase as to lexical repetition. A paraphrase link is simple if an alteration needed to substitute one item for another in context is necessitated by a grammatical paradigm. Thus, **sedating** [sentence 1] and **tranquillized** [sentence 2] are in simple paraphrase, because the change of **sedating** to **sedated** and **tranquillized** to **tranquillizing** when they substitute for each other is occasioned solely by a different syntactic choice fom the verb-form paradigm. Note that for this to be possible the items in question must already share collocational characteristics" (p.63).

A second qualification (mentioned earlier) is "...the possibility of two items being in a repetition link because they were both linked by repetition to a third ('the link triangle') (p.63) (see Figure 7.1). There are two types of simple paraphrase:

a. Simple Mutual Paraphrase (smp)

Simple mutual paraphrase is when the interchange of lexical items works in both directions. In the Bear Text, "Examples of simple paraphrase are **produce** (sentence 1) and **causes** (sentence 2), and **sedating** (sentence 1), **tranquillized** (sentence 2), and **drugging** (sentence 4)" (p.62).

b. Simple Partial Paraphrase (spp)

Simple partial paraphrase is when the "...substitution works in one direction only" (p.62). The example given by Hoey is taken from the introduction of the three volume work entitled *Masters of Political Thought*, referred to as the *Political Text* hereafter (see Appendix H) where *volume* (sentence 1) is related to *book* in sentence 2 by simple partial paraphrase. As Hoey points out 'It seems possible to replace **the following volume** by **the following book**, but it seems less acceptable to substitute **the volume does not purport** for **the book does not purport**' (p.63).

4. Complex Paraphrase (cp)

Complex paraphrase "...is used to describe several kinds of relationship between lexical items" (p.267). "Interpreted broadly, it may be said to occur when two lexical items are definable such that one of the items includes the other, although they share no lexical morpheme. Since this will relate vast numbers of lexical items (for example, **sickness** and **doctor, carol** and **Christmas**) in ways that might be revealing about lexis but are not readily controllable, we restrict its application to three situations only" (p.64).

"Firstly, it covers cases where two items that do not share a lexical morpheme are nevertheless understood to be the antonyms, or opposites, of each other" (p.267).

a. Those that do not share a morpheme: e.g. '**hot/cold** and **dry/wet**' (p.64) are included under complex paraphrase. Some, however, may be considered paraphrases e.g. **far from hot** may be considered a simple paraphrase of **cold** (p.64).

b. Those that share a morpheme: e.g. "**happy, unhappy; audible; inaudible; contented, discontented..**" (p.64) were included under complex repetition (see number 2. above).

"Secondly, complex paraphrase covers cases where two items are regarded as linked by virtue of their both being linked to a common third item. For example, *record* and *discotheque* would be seen as in a relationship of complex paraphrase because of their both having a link with *disc* in a text" (p.267). The example related to the Political Text is "when the item under attention is a complex repetition of another item (for example, **write** and **writings**) and also a simple paraphrase (or an antonym) of a third (for example, **writer** and

author). In such circumstances, it seems reasonable to acknowledge a complex paraphrase link between the second and third items (**writing** and **author**). This is another use of the 'link triangle' (Refer to Figure 7.2 below). In other words, the presence of two types of link creates a third" (p.65).

Figure 7.2 Complex Paraphrase and the Link Triangle
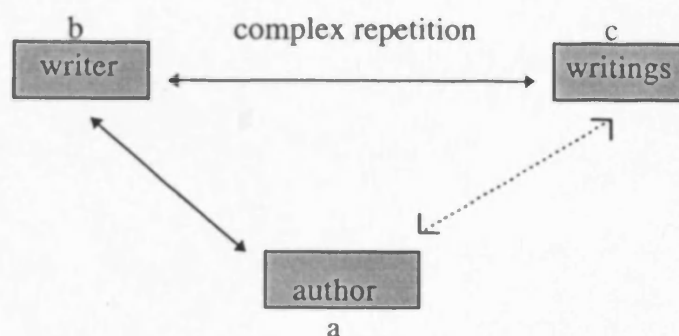
(Hoey, 1991a, p. 65)

A *complex repetition* is formed between *b* and *c*
A *simple paraphrase* is formed between *b* and *a*
A *complex paraphrase* is formed between *a* and *c*
    as consequence of the other links

Another example based on the Bear Text, is the triangle link between "**drugging** (sentence 4) linked to **drug** (sentence 1) as complex repetition and with **tranquillized** (sentence 2) as simple paraphrase; it follows using the criterion described above, that **drug** and **tranquillized** are likewise linked as complex paraphrase" (p.66).

A final note from Hoey on the link triangle: "What such a diagram says is that wherever links have been established between one item and any two other items in a text (by whatever means), there is also a link between the two other items. Sequence is irrelevant to the operation of the triangle" (p.65).

"Thirdly, it covers cases where a third item does not in fact occur but could have occurred in that particular context. So if *disc* did not occur in the same text as *record* and *discotheque*, the latter items could still be regarded as forming a complex paraphrase if there was the possbility of substituting *disc* for *record* in that context" (p.267). An example of this third type of complex paraphrase is taken from Hoey's Political Text between **instruction** (sentence 23) and **teacher** (sentence 25) copied below for convenience of reference.

23 Some of the greatest political writers have believed themselves to be
offering such a system of practical **instruction**, and many students of their
works in the past have undoubtedly sought, and may have found in their

pages that practical guidance which they have professed to offer. 24 But
this is certainly not the advantage which a modern reader can be promised
from a study of their works. 25 This entire conception of politics as an art
and of the political philosopher as the **teacher** of it rests upon assumptions
which it is impossible to accept (Foster 1942 in Hoey, 1991a, pp.66-67).

As Hoey explains, "There is a missing item, **teaching,** that can substitute exactly for **instruction** *in this context* and which, of course, would be in a repetition link with **teacher.** (It is almost possible to substitute **instructor** for **teacher** as well; only the presence of **of** instead of **in** prevents it.) This allows us to treat the relationship between **instruction** and **teacher** as one of complex paraphrase" (p.67).

5. Substitution (s)

Substitution is used "... (as in Quirk *et al.* 1972) to mean any item whose specialized function is to 'stand in for' or allude to one or more earlier lexical items; e.g. personal pronouns, demonstrative pronouns, demonstrative modifiers accompanying heads that are not repetitions in their own right. The term as used here should not be confused with the term used by Halliday and Hasan (1976); what we call substitution embraces both what they call 'substitution', and also what they treat as 'reference'"(p.269). Hoey makes the following qualifications:

a. "Of the personal pronoun system, only **he she, it** and **they** are treated as items entering into signficant repetition sets. **I, you,** and **we** are treated if contained within quotation; otherwise they are deemed to refer out of the text into the 'world' (exophoric reference)" (p.71).

b. "The demonstrative pronouns, **this, that, these,** and **those,** are also treated as entering into repetition links" (p.72). However, they are not picked up if they are followed by noun heads. e.g. **This** was placed on the table. **This book** was placed on the table. (author's own example). The **this** in the first sentence would be picked up if it referred to an earlier lexical item; the **this** in the second sentence would not as it is followed by a noun head which itself may have been picked up as a repetition link.

c. "For the same reason, all instances of **the** are ignored" (p.72),

d. **One** "When used as a nominal head modified in some way, ..is treated as forming a repetition link with an earlier item. Thus, **the first one** or **another one** would be picked up, but **one** by itself would be ignored" (p.73). Hoey refers the reader to Halliday and Hasan (1976) and Quirk et al. (1985) for more details.

e. The same applies for "**do (it/the same/this/likewise/so)**" (p.73).

f. "**So,** as in **they said** so; ..is treated as a single repetition link" (p.73).

g. "...a small group of items... (an)other, **the other**, (the) **same, different,** and **similar**. The first three are treated exactly like demonstrative modifiers. If they accompany a lexical item in a repetition link with an earlier item, then they are ignored to avoid double accounting." ....

"When, however, **the other** and **another** occur without an accompanying lexical item as head in the nominal group, they are regarded as marking the presence of ellipsis (discussed below). The second sub-group, **different** and **similar**, are treated in the same ways as **other** and **same**, except that they are also analysed as lexical items capable of entering into repetition relations in ther own right, because of their place halfway on that cline between grammatical and lexical..." (p.74).

6. Co-reference (Co-Ref)

Co-reference is a specific type of substitution link usually dealing with "something real or imaginary outside the text" (p.73) usually, it appears, as proper noun reference. For example, Hoey illustrates this by the lexical items **Augustus** and **the Emperor** forming a co-reference repetition link. He points out that the time variable is important when considering whether there are links between lexical items such as the one given. **Mrs. Thatcher** could be referred to as being **the Prime Minister** in a text written in the 1980's but not if written in the 1990's (p.70).

7. Ellipsis (e)

Ellipsis is a type of substitution link; in fact, zero substitution: "...the absence of some required stretch of language that has to be supplied by the listener or reader to make sense of the sentence encountered. It seems only ever to function as a type of short-term repetition and is only countenanced in our analysis as a means of creating repetition in those cases where a sentence is grammatically incomplete unless something is supplied from earlier in the text" (p.74). Hoey mentions that it is important "when we consider the ways in which we may produce sub-texts from the non-narrative texts we analyse" (p.74). Examples of this are grammatical and may include the words mentioned under substitutes above, points *b, c, d, e, f,* and *g* when no noun head follows them.

8. Deixis (d)

Deixis is yet another type of substitution; mainly demonstrative pronouns that refer back to stretches of language (p.72). An example of deixis is the the word **This** in the following sentence as it refers back to a large stretch of text expounding the idea.

Example: **This** will be discussed in the next meeting.

Hoey's interpretation of deixis compares with Renkema's (1993) extensive studies in deixis who mentions that "The research into deixis was inspired by Karl Buhler who distinguished two fields in language: the deictic field (I, you, there) and the symbolic field ('nice roof', 'run').' He further mentions that "Buhler compared the words in the deictic field to signs on a footpath that direct walkers to their destination" (1934 in Renkema, 1993, p.77). Renkema attempts to explain deixis:

> 'Deixis deals with connections between discourse and the situation in which discourse is used. The word deixis, which is derived from the Greek word meaning 'to show' or 'to indicate' is used to denote those elements in a language which refer directly to the situation. Deictic words are words with a reference point which is speaker or writer dependent' (p.76).

9. Arguable cases (according to criteria* and discourse external +)

Hoey mentions that there may be cases in which the analyst is not sure whether they are repetitions or not. These should be marked as arguable cases. For example, in the Political Text (see Appendix H), Hoey indicates a simple repetition link between the lexical item **I** in sentence 6 as arguable and places an + near the recording of it. Another example in the same text indicated as arguable according to the criteria is simple partial paraphrase between the lexical item **notes** in sentence 1 and the lexical item **remarks** in sentence 11.

Hoey gives a final word on the cohesive categories that although grammatical links such as those of subsitution have been included in the analysis, the lexical links are more important and it is on these that the analysis pays most attention as "it is the lexical links that dominate the cohesive organization, at least beyond adjacent sentences,..." (p.74).

B. The Data

Hoey (1991a) gives two **expository texts** (The Bear Text and the Political Text) with which he explains his analysis. He focuses the main part of the analysis on the Political Text (see Appendix H). It was chosen at random by Hoey and is the first forty sentences of a three volume work aimed at undergraduate students. His choice of the first 40 sentences was done so that there would be no reference to earlier sentences (Hoey, 1991a, p.80). Since all links in the present analysis are anaphoric, pointing backwards, this was a significant choice.

Hoey explains that the expository text was chosen rather than narrative since there is more possibility that there would be repetition links in the former. He supports his claim by referring to studies which focus on repetition in expository texts (Emmott, 1989; Philips, 1983 and Winter,1974 in Hoey, 1991a).

C. The Links

1. A Note on the Priority Order of Recording Links

Hoey makes a significant comment concerning the recording of links.

"...an item may only make one link per sentence (though there is no limit to the number of sentences it may make a link with). If an item repeats two items from another sentence, then only one link is registered. Conversely if a sentence contains two items, both of which repeat an earlier item, again only one link is recorded' (p.83).

He gives the following example:

"Imagine, for example, two sentences, in the first of which reference is made to a writer, and in the second of which there is complex repetition (**writings**), a simple paraphrase (**author**), and a pronoun (**he**). In such a case, despite there being three separate items in the latter sentence, they would be treated as making just one link." (p.83)

Hoey then goes on to explain which link would be recorded and why.

'In such circumstances, we need to decide which link to record. It is assumed that links vary in weight and that their weight in decreasing order of importance is as follows:

- simple lexical repetition
- complex lexical repetition
- simple mutual paraphrase
- simple partial paraphrase
- antonymous complex paraphrase
- other complex paraphrase
- substitution
- co-reference
- ellipsis   (p.83)

Hoey explains that the lexical repetition and paraphrases are higher weighted than the structural links of substitution and ellipsis due to their importance in the lexical patterning over text since the analysis is a lexical one. As he further points out, "Substitution links do not interconnect with the same complexity"(p.84). There is an implication that there may be some disagreement as to the relative weighting of the lexical repetition and paraphrase which in fact this study discusses when explaining the criteria in the next section. The rationale given by Hoey, as was previously explained, for the order of importance in selection of the links to record is a practical one in that it is easier to identify the simple lexical repetition and so forth down the scale above and, therefore, the results would be more reliable.

In the example above, therefore, "the link we would record with **writer** would be **writings**; the others would be treated as internal to the sentence" (p.84). Hoey explains that although

links within the sentence are still links, "they interfere with the clarity of the patterns of lexis that we have set out to illuminate"(p.84).

2. Identifying and Recording the Links

Identifying, *recording* and *interpreting* the links are carried out according to the following steps:

The priority order of identifying and recording the links follow the one given above and is detailed in this step. The rationale for the order given by Hoey when he was asked by the researcher (Personal communication, August 1995) was that since the **simple** and then the **complex lexical repetitions** are the 'easiest' to identify in comparison to the others, their count would be the most reliable and so are first and second priority respectively in identification and recording. The order of items down the priority scale follow the same rationale, and therefore, since **complex paraphrases** are the most difficult to identify, they are low on the scale. **Substitution, co-reference, and ellipsis** are last because, as Hoey points out, they are more grammatical or structural links rather than discoursal, and priority in the analysis is given to the latter.

1. Once the text(s) have been chosen, the first step is to identify the **simple** and **complex lexical repetition links (1 and 2)** according to the criteria mentioned above. As Hoey points out (p.81) the process is a slow and lengthy one by hand. This is because each sentence is studied separately for links with each of the following sentences. For example, in the Political Text, sentence 1 is studied for links with each of the following 39 (i.e. sentence 1 with sentence 2, sentence 1 with sentence 3, sentence 1 with sentence 4, sentence 1 with sentence 5 and so on); then, sentence 2 is studied for links with each of the following 38 (i.e. sentence 2 with sentence 3, sentence 2 with sentence 4, and so forth); then sentence 3 is studied for links with each of the following 37 sentences in the same way as the sentence 1 and 2, and so on.

However, since appropriate computer software is still not available for this kind of analyis (to the researcher's knowledge) this remains the only way.

Hoey mentions a few assumptions of the analysis:

- "There is no restriction on the number of links that a lexical item may enter into.
- All repetition is anaphoric (that is backward looking) only.
- Identification of lexical items will on occasion result in contentious decisions, but these do not invalidate the general procedure and are of little importance. Accidental repetition is weeded out according to the criteria outlined.
- When a lexical item occurs, it is deemed to form a repetition link with every one of its previous occurrences, not just with its immediate predecessor in the text. Thus, **reader** in sentence 16 of text 4.1 [Political Text] [see Appendix H] repeats **reader** not just in sentence 14 but in sentences 1, 7, 10 and 12 as well. Of course, each previous instance of **reader**

likewise reiterates its predecessors, thus creating a network, or net, of links; see Figure 4.1:'
(p81) Figure 4.1 is reproduced as Figure 7.3 below:

Figure 7.3 A Sample Net of Links
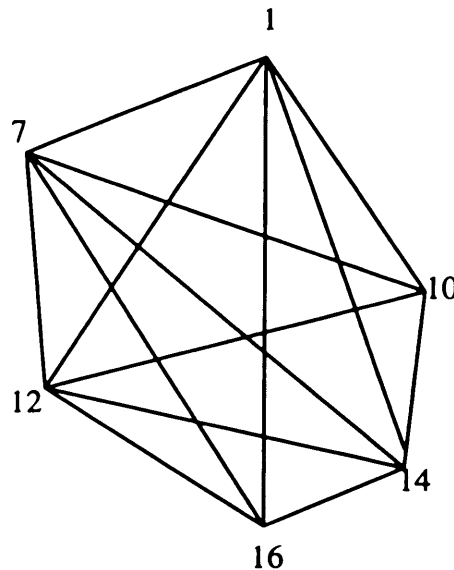
According to Hoey, "...in all subsequent diagrams of this kind, 'higher in the diagram' will
stand for 'earlier in the text'."

(Hoey, 1991a, pp.81-82)

Once the repetition links are identified, they need to be **recorded** in the **repetition matrix**
(see Appendix I). The type of repetition and lexical items linked are also mentioned. The
advantages of the repetition matrix over the network (or net as in Figure 7.3 above) in
recording the links is that it describes the complex non-linear relationships of all types of links
(and therefore the many networks) in the text and identifies the numbers of the sentences and
the numbers of the links and thus "...is capable of **interpretation** in a variety of ways" (p.85).
These interpretations are:

a. 'The sentence's connections with other sentences in the text, whether close at hand or
separated by some distance.

b. Horizontal columns tell of a sentence's connections with its predecessors in a text; vertical
columns tell of its connections with later sentences. Thus, for example, sentence 3 is shown
by its horizontal column to have one link with sentence 2 and two with sentence 1. Its vertical
column shows it to have no links with sentences 9, 10, 13, 15, and 16, one link with each of
sentences 5 and 12, two links with sentences 4, 6, 8, and 14, and three links with sentences 7
and 11 (see Appendices H and I).

c. ...a glance at the table reveals variable density of connections among sentences. Thus,
sentence 8, for example, has no links with one of its neighbours and only one link with the
other, yet it has four links with sentence 4, and five with sentence 1 from which it is separated
by seven sentences.

d. It will also be seen that certain sentences appear to connect only slightly with the rest of the text, while other sentences are much more closely linked. Sentence 13, it will be noted, has just one link with one sentence; sentence 1, on the other hand, is connected (in most cases by more than one repetition) to all but two.

However, as Hoey points out, this matrix even though it notes "the variability of density of links (see Appendix H), it is too complex to allow detailed investigation of this phenomenon. To explore the matter further requires that we present a matrix that shows links *counted* rather than *itemized*" (p.90). Hoey gives another representation of the repetition matrix (referred to in his book as Table 4.3 (see Appendix J, referred to hereafter as the *Cell Matrix*) which "allows us to compare directly closeness of connection between sentences" (p.90).

2. After the lexical repetition links are identified and recorded, the **second step** is to identify and record the **paraphrases** (3, 4 and 5 under lexical criteria mentioned above) in the repetition matrix. As Hoey notes "It is, of course, quite possible for one item to paraphrase another while lexically repeating a third. It is also possible for a word to paraphrase a phrase and vice versa. When a paraphrase is recorded, a note is also made of the item(s) being paraphrased" (p.82) as well as the type of paraphrase.

3. Once the lexical repetition and paraphrases are identified and recorded, **substitution (including deixis) and ellipsis** are considered. As Hoey notes, "Each of these types of repetition may 'stand in for' more than one lexical item; notoriously, *this* can substitute for whole stretches of text. They are still single links, however, and are so recorded" (p.83).

It should be noted that the three steps in identifying and recording the links just mentioned are carried out between each pair of sentences simultaneously. In addition, if two lexical items can be linked in more than one way as described under points 1-3 above, then the priority scale of importance is used to decide how the link is identified and recorded in the repetition and cell matrices.

4. As Hoey points out, some links may be 'arguable for some reason or another' as the word (see Appendix H) **introducer** in sentence 14 which might be reference to I, a paraphrastic reference to **author** or to the generic class of **introducers** - although no repetition is present. In such cases, it is suggested that they be recorded as arguable either according to the criteria

used (*) or according to discourse external factors (+) such as the example here concerning the lexical item *introducer*.

D. Net of Bonds

1. Creating the Net

According to Hoey's analysis, sentences vary in the number of repetitions they have with other sentences. A minimum of three repetition links between sentences is required to create a significant connection between the sentences referred to as a **bond.** It is such bonded sentences that he claims are intelligible together (coherent) and form sub texts or summaries of the main text.

In order to interpret the strength of bonding in the text, Hoey refers the reader to the cell matrix in which the number of repetitions each sentence has with each other is mentioned (see Appendix J). He makes the following preliminary computation on this particular cell matrix which represents the identification and recording of the links of the first sixteen sentences of the Political Text (see Appendix H).

"Out of 120 cells in the matrix, 53 (44%) are empty; of the remainder, a further 31 show one repetition only, even after inclusion of arguable cases. This means that slightly over two-thirds (70%, i.e., 84 out of 120) of sentence pairs are not significantly connected by repetition. The remaining third, however, show marked variation in density of linkage. Again, including the small number of arguable cases, there are 17 pairs of sentences linked by three or more repetitions, and only two of these are adjacent pairs.' (p.91)

Hoey analyzes the remaining sentences (17-40) of the Political Text (see Appendix H) and comes up roughly with similar computations (p.97). He qualifies the significant aspect of the above computation results which is quoted for clarity at length below:

'Since we are interested in repetition that appears to serve some text-organizing function, we will only concentrate on those cases of linkage that, within the text, show an above-average degree of connection...What we need is a degree of repetition high enough to distinguish significant pairs from insignificant pairs and low enough to leave us with something to investigate. If we attempt to account for all the pairs connected by two or more repetitions, we shall be attempting to account for nearly forty pairs; in any case, practically, as will be shown, there would appear to be nothing reliable that one can say about two-repetition linkage. On the other hand, only six pairs of sentences share four or more repetition links (including one instance, an arguable link), and only one of these does not involve sentence 1. **We will regard three links, therefore, as our cut-off point for this text, and we will term a connection made between any two sentences by virtue of there being a sufficient number of links between them a bond. So lexical items form links, and sentences sharing three or more links form bonds'** (p.91). [Bold type is the researcher's]

Hoey does say that it depends upon the texts' relative length and lexical density of the sentences as to what the cut-off point is for the number of links formed between sentences which may be related to genre. Some science and law texts vary from between 5-6 and 12 links as cut off points respectively (Hoey, 1988a and Rammell, 1988 respectively, in Hoey 1991a, p.92). The question raised here in this context, is what is the cut off point for the texts of students' learning English as a foreign language? This question will be addressed in Chapters Eight and Nine. The complete set of bonded sentences is termed by Hoey as a **net.**

2. Recording the Bonding in a Net

A *net* in Hoey's analysis refers to "...both the complete set of bonded sentences and any sub-set of them..." (p.92). The two main nets created in Hoey's Political Text were the bonded sentences for the first 16 sentences of the selected 40 sentences and then the remaining 24. For each net Hoey showed the 1) the interconnectedness each sentence has with consecutive sentence(s) in the text (topic openers) and 2) with previous sentence(s) in the text (topic closers).

Hoey spends much time in the early chapters explaining an analogy between the relation between bonds to later and earlier sentences to research work that cites later and earlier works. His analogy helps clarify how sentences that connect to later sentences are considered to have opened topics, and sentences that connect to previous ones to have closed or concluded topics (p.104). Hoey combines these two nets in a a table of two columns indicating the quantity of bonds each sentence has with consecutive and previous sentences and gives one based on the 40 sentences of the Political Text (see Table 7.5, Section III.C.7. later, referred to as the **Coordinate Matrix** hereafter).

Hoey explains how the two nets in combination are interpreted.

> "Using the two nets in combination, each sentence in the forty-sentence passage can be assigned a two-figure co-ordinate, the first showing the number of previous sentences to which it is bonded, the second showing the number of subsequent sentences to which it is bonded. Thus, sentence 20 in Figure 4.3 [Table 7.5 later in Section III.C.7.] has a co-ordinate of (1,9), since it is bonded to one earlier sentence (sentence 19) and to nine subsequent sentences (sentences 21, 22, 23, 25, 26, 28, 34, 38, and 40). If one or more of the bonds is doubtful in some respect, two figures may be provided, the one in the second set of brackets representing the more cautious calculation of the number of bonds." (p.104)

3. Significance of the Net of Bonds

Hoey claims that by omitting sentences that are not bonded (referred to as marginal) and placing bonded sentences (referred to as central) together, shortened versions of the complete

text can be formed. It is further claimed that sentences that have high bonding with consecutive sentences can be identified as topic introducers (or topic sentences) as they introduce main ideas which are later developed, and sentences that have high bonding with previous sentences can be identified as topic closers (summative or concluding sentences) as they do not introduce new material but finalize ideas. These *abridgements* of the texts (as they are referred to) are significant contributions of bonding to the organization and, therefore, the coherence of a text as well as providing summaries and topic and concluding sentences. Thus, "...there is an importance to bonding that goes beyond the statistical" (p.118). Such abridgements are discussed below. The examples are taken from the Political Text (see Appendix H).

a. Marginal Sentences

Hoey states that sentences vary in the number of bonds they have with other sentences. He refers to the Coordinate Matrix of the Political text (see Table 7.5 later) in which he identifies eight sentences that are not bonded with either previous (the first coordinate) or consecutive sentences (the second coordinate) having 0 coordinates (0,0); these are sentences 5, 9, 10, 13, 18, 27, 30, 31. They are considered **marginal** as

"...what they have to say neither builds lexically upon what has gone before nor provides the lexis for subsequent statements. That is not the same as saying that they serve no purpose. As we shall see, they are frequently of importance in making a reader's task easier or in providing some necessary ancillary information without which the main theme might be open to misunderstanding. Nevertheless, we argue, they are marginal in that they do not directly contribute to that main theme' (p.105).

Hoey tests this claim by omitting the marginal sentences from the text and seeing whether the remainder make sense (are coherent) together. He finds that they do (pp.105-113) and concludes:

"It is not unusual for over fifty per cent of sentences to be marginal by the criterion we have used, and for these texts, as for this one, the effect of their omission is to produce a shorter version of the original that is representative and readable." (p.113)

b. Central Sentences

Another 'more positive' way of considering the coordinates is to include only the sentences that have a high level of bonding, that is, **central sentences.** Hoey points out, however, that "Just as the minimum number of links criterial for bonding varies from text to text, so the number of bonds criterial for centrality likewise varies" (p.113-114). He then identifies from the coordinate matrix for the text, two levels of bonding that could be considered criterial for

centrality: 1) 5 bonds and above and 2) above 9 bonds and joining only those bonded sentences (with some slight modifications) and testing whether they are intelligible or coherent together (pp.115-118). He draws upon the readers' help in determining the coherence of the abridgements, as he terms them, claiming as others do in the field, that coherence is a property of the readers' schemata while cohesion is included in the texts.

When five bonds were considered criterial for centrality, there are fifteen sentences selected from the Political Text: sentences 1. 4 12, 14, 17, 19, 20, 21, 23, 24, 26, 28, 34, 38 and 39. When above nine bonds were considered from the same text, there are six sentences: 1, 20, 23, 26, 28, and 38. It will be seen that the second sub-text is less coherent than the first. In order to choose the two thresholds of 5 bonds and above 9, the quantity of sentences and quantity of bonds were examined in the Coordinate Matrix (see Table 7.5 later) for the 40 sentence Political Text and plotted as shown below in Table 7.1.

Table 7.1   Threshold of Sentence Centrality by Quantity of Bonds (Political Text)

Quantity of Sentences	Quantity of Bonds	
8	none	
7	1	
7	2	
3	3	
none	4	
5	5	* first threshold
1	6	
2	7	
1	8	
none	9	
2	10	* second threshold
2	11	
1	12	
none	13	
none	14	
1	15	(Hoey, 1991a, p.114)

c. Topic Opening and Closing Sentences

A second significant use of bonding that Hoey mentions is that some sentences have a higher number of bonds with consecutive sentences; these are probably topic openers (equivalent to the 'thesis statements' or 'topic sentences' which serve as introducers in the teaching of compositions). Other sentences have a higher number of bonds with previous sentences (equivalent to 'concluding or summative sentences'). If this is the case, then

bonding has a significant role in the teaching of writing, specifically for teaching essay writing. Hoey gives a few examples of topic opening and closing sentences in the Political Text.

Topic opening (sentences 1, 4, 19, 20) and *topic closing* (sentences 38 and 39) and both topic opening and closing (sentence 23) (p.119-120).

Looking at these sentences in the text, one clearly sees that they do introduce and conclude topics (see Appendix H). In fact, sentence 1 is clearly opening the topic for the whole work. Hoey points out the controversy around the belief that topic opening sentences are assumed to be in the beginning and stresses the significance of the analysis in identifying topic sentences:

> "To some it may seem self-evident that the first sentence of the first paragraph will be topic-opening, though Stern (1976) casts serious doubt on the validity of assuming that all paragraphs begin with topic sentences. To those who support this position, it should be encouraging that a system of analysis that makes no appeal to discourse position has identified so clearly the topic status of this sentence." (p.119)

Hoey closes the chapter by saying

> "But the best evidence will be that found by the readers for themselves. It is my hope that at least some readers will feel tempted to explore the phenomenon further." (p.124)

The present researcher was tempted, and some of the recommended methods of analysis on the significance of the bonds 'beyond the statistical' are given in Chapter Ten in connection with the sample EFL texts analyzed for the main study.

4. Properties of the Bonds

Besides outlining how a net of bonds is created from the repetition links and the insights that the bonded sentences offer, Hoey also shows the properties or the strength of the bonds of which the nets are made and from which the insights drawn.

a. Strength of Bonded Sentences

Hoey puts forward two claims for bonded sentences. We will be concerned more with the strong claim:

> "..each bond forms an intelligible pair in its context." (p.126)

To test this claim, Hoey juxtaposes some bonded sentences from the Political Text (see Appendix H) and relies again on the reader's interpretation for evidence of their intelligibility; "...the only valid evidence being, as before, reader evaluation" (p.127).

> Sentences juxtaposed are 1 and 4, 1 and 7, 1 and 17, 17 and 24, 19 and 26, 20 and 38, 21 and 23, 23 and 36, 23 and 38, 25 and 28.

Hoey mentions that the weak claim argues that bonded sentences are related although they do not cohere due to certain features of excessive repetition (20 and 22), effect of voice choice (20 and 22), effect of modal choice (20 and 22), the effect of given-new relationships (3 and 11) and the effect of the context (1 and 26) and would need adaptation to read less awkwardly and thus be coherent. The numbers in brackets refer to the sentence numbers in the Political Text Hoey uses for the analysis (See Appendix H).

b. The Abridgements by Topic Controlling Sentences

A third and perhaps better way of achieving a more coherent summary of the main ideas in a text (besides the omission of marginal sentences and the inclusion of central sentences explained in Sections 3.a and 3.b earlier) would be to include only those "sentences that are bonded with any one sentence" (p.143) referred to as "topic controlling sentences" whether they are topic opening or topic closing. Hoey gives the example of sentence 17 (a topic opening sentence) bonding with sentences 1, 21, 23, 24, 28, 37, and 38. As Hoey explains, "by taking a key topic sentence, we have obtained an adequate and reasonably readable summary, one-fifth of the length of the original" (p.144). He gives other examples from the same text. As Hoey points out,

> "What this summary suggests is that there is more than one acceptable
> and representative abridgement of any text." (p. 148)

And concludes by suggesting that it is left to future research to see the relationships among the different summaries for a single text and to develop "some criteria for evaluating their adequacy as abridgements of the original" (p.148).

c. Distance Bonding

Distance bonding refers to the number of intervening sentences between sentences that are bonded. In the analysis of the first half of the Political Text, Hoey mentioned that only a few bonds appeared between adjacent sentences (p.91) implying that some sentences may bond over long distances in the text. He also indicated that "only a thorough computationally-based study could hope to provide convincing evidence of the scope of bonding over long stretches of text" (149).

He does, however, show how it is possible for sentences at long distance to cohere and juxtaposes sentence 1 with other sentences in the same text. A surprising example is when he juxtaposes sentence 20 of the Political Text to two sentences (referred to as x and y) which are 260 pages distant from sentence 20 in the work - or 4,000 sentences apart (p.151).

This text is copied below:

"**20** Just as a man of superior knowledge or skill in the art of
carpentry may compile a work in which his knowledge is made
available to those who aspire to be good carpenters, so a
man of superior wisdom in the art of politics may set down his
knowledge in a book for the instruction of those whose business
it is to found, govern, or preserve states. x A handbook of
carpentry provides a system of technical rules for the working
of wood, and a man who has mastered them may make use of
them to enable him to break into houses, or for other illicit
purposes. y It is conceivable that a political handbook might
merely lay down the rules by which power could be most readily
acquired and maintained, leaving it to another kind of knowledge
to determine on what occasions it was allowable, or in accordance
with virtue, to apply these rules." (p.151)

The question Hoey leaves is what is the upper limit of distance bonding (p.151). The question the present research attempts to answer is whether there is any signficant difference in distance bonding between high and low holistically rated EFL texts. The implication left by Hoey's analysis is that texts of high proficiency level, such as the one he analyzed, have few adjacent bonds in comparison to longer distance bonding. Investigating the scope of bonding in texts is likely to be a significant contribution of lexical cohesion in texts.

d. Bonding and Reader Creativity

Hoey explains the reader's role in interpreting texts and argues that the reader does not have much freedom in interpreting bonded pairs of text, that, in fact, readers "unearth the sense rather than create it" (p.153). However, as Hoey points out, to do this they need to have a full recall of the text they are reading. He supports this by reference to how 1) readers make connections between works in literature and how 2) we build up 'meaning profiles' of words since childhood through collocations and using words in context. Thus, Hoey argues for building up profiles as evidence that full recall is possible. He does mention that the level of coherence between bonded pairs will vary according to the readers' "...different thresholds of acceptability of pairings" (p.160). But concludes "Since assessments of coherence and relatedness cannot avoid being indeterminate, this is not of importance as long as there is a broad measure of agreement about the majority of pairings" (p.160).

e. Bonding and Writing Creativity

Hoey also raises the question of the relation of the writer to a text, whether bonds are an accident of the writing process, or whether they reflect cognitive activity without the writer's awareness. Hoey mentions that it may be possible that writers create bonds without being aware of it. He gives as an example the first few sentences of the text used that bonded with the first few sentences of the last volume: they were written by a different author with a

different editor seventeen years apart. This bonding has occurred between different authors' texts over time. This may be due to the second writer being familiar with the first text by either having read it or being knowledgeable on the subject. Hoey suggests the possibility of intertextual bonding; but leaves it for future research to investigate.

Hoey sums up this section of reader and writer creativity:

"The notion that readers may vary in the degree to which they find pairs of sentences intelligible gave rise... to the question of whether what has been demonstrated ... is the creativity of the reader in making sense out of non-sense. We have suggested that, without denying variability or creativity in readers, there are grounds for supposing that they unearth intelligibility in bonded pairs rather than inventing it. As for writers, there are clues that they may be bonding not only with their own earlier sentences, but with sentences that they have read from other works, as we saw in the section on distance bonding." (p.161)

The author concludes by stating there may be pairs of sentences that cohere together but are not bonded by the criteria outlined and says: "It may be that, as techniques of lexical analysis improve, it will be possible to recognize lexical links that are currently (if the pun may be excused) slipping through our net" (p.160).

III. Lexical Cohesion Analysis Procedure (An Adaptation)

A. Data

An adaptation of the lexical cohesive criteria outlined by Hoey (1991a) and summarized above was applied on the 40 D1 texts and the 40 D2 texts. The 40 D1 texts were divided according to high and low holistically rated texts and study language of the students who wrote them - English or French educated. The 40 D2 texts were re-written by the same students who had written the D1 texts, but had been holistically rated as 14 high, 15 mid and 11 low texts.

Previously, Hoey had justified his choice of the first 40 sentences from the three volume work in that it was introductory and, therefore, could avoid reference to earlier sentences (p.80). Likewise, the texts chosen for the present analysis were self-contained essays that also did not refer to any earlier sentences; each had to construct its own context (i.e. present a self-referential aspect). In this respect, the data chosen were suitable. The 80 texts were typed (exactly as students had written them) so that analysis would be easier. Samples of these texts have been included (see Appendix K). No attempt was made to correct errors, and sentences were numbered in their original order. The sentence was identified in the same way as Hoey

described, as an orthographical representation beginning with a capital letter and ending with a full stop (p.78). Hoey finds this satisfactory since he defines the sentence as primarily textual rather than syntactic; "...a minature text by analogy with our metaphor of the academic bibliography" (p.78). The maximum number of sentences any of the texts contained was 35. By coincidence, this compared with the number of sentences in the Political Text that Hoey selected. The procedure of the adaptated analysis procedure is discussed below according to the same headings used above.

B. Lexical Cohesive Criteria

The adaptation of the lexical cohesive criteria was one based on the importance of the lexical items in the teaching/learning of the essay in academic settings. In this context, then, the ranking (as outlined below in the description) is genre specific (Hoey, Personal communication, August 1995). That is, the rank order is considered more valuable in English language teaching because it shows greater use in lexical variety, shows learning and use of a larger vocabulary, and encourages and develops learners' use of English. The order of the paraphrases (*cp*, *spp* and *smp* in that order) specifically shows students' awareness of the conceptual boundaries of word meanings and limitations of use, and until we have evidence to the contrary, we will give the students the benefit of the doubt. That is, we will presume that appropriate use of these aspects in writing reflects writers' vocabulary learning and writing proficiency (Cortazzi, Personal communication, August 1995).

The order of importance in picking up the links used in the analysis is the following:

Lexical repetition links

- complex paraphrase
- simple partial paraphrase
- simple mutual paraphrase
- complex lexical repetition
- simple lexical repetition
- co-reference (borderline between lexical and grammatical)

Grammatical repetition links

- deixis
- substitution

The above ranking is justified in the sense that students' writing which indicates an attempt at using derivational forms of the same word, antonyms and synonyms as compared to simply repeating the exact same lexical item or using grammatical substitutions would show more maturity in writing and thus a higher proficiency level. It is expected that teachers would focus on helping learners develop their writing through an awareness of the foregoing.

It should be pointed out that while the researcher was doing the analysis, very little difference was found compared with Hoey's order of priority and the adaptation in picking up the links if there was a choice. This is probably attributed to all the texts in the study having a very high number of simple repetitions. The lexical cohesive categories are discussed according to their order of importance. (Ellipsis has been omitted from the above list for reasons which will be given later.)

1. Complex Paraphrase (cp1, cp2, cp3)

The three categories of complex paraphrase are the same as Hoey's. The type of antonym sharing a lexical morpheme (e.g. unhappy/happy, see Section 3 later), has also been termed complex lexical repetition.

Each of the three broad categories of complex paraphrase as identified by Hoey were then labelled as **cp1, cp2,** and **cp3** with cp1 being the 'least' important and cp3 the 'most' important. Examples of each type are given below:

cp 1 e.g. hot/cold (antonyms with different morphemes)
cp2 e.g. writings/writer (cr), writer/author (sp) then author/writings (cp2)
cp3 e.g. instruction/(*teaching* not mentioned); however instruction/teacher (cp3)

2. Simple Paraphrase (spp, smp1, smp2)

The two categories of simple mutual paraphrase and simple partial paraphrase were kept the same as Hoey's. However, simple mutual paraphrase was divided into two parts as below picked up in the analysis with spp being the highest in priority and smp 1 being higher in priority compared to smp2. The symbols used and a few examples are given below.

spp e.g. book/volume (see sentences 1 and 2 in Political Text, Appendix H)
smp 1 e.g. degree/standard; angry/mad
smp 2 e.g. irresponsible/not responsible; disagree/not agree

The order of priority in picking up the simple paraphrase was **spp, smp1, smp2** as it was considered that it is more difficult for EFL learners to decide in which of two contexts a lexical item can and can not be substituted (spp). Second in difficulty is to decide to use synonyms that are morphologically different (smp1), and third to use synonyms that only require a prefix or a negative (smp2). It should be pointed out that all cases of links between the lexical items **teenager(s)** and **child(ren)** (in any order) were omitted in the analysis as it was not clear whether the referent was the same.

3. Complex Lexical Repetition (cr1, cr2, cr3)

The complex lexical repetition type remained the same as that of Hoey's but is divided into three categories as below. These are outlined below with their symbols and examples: cr1 is considered the 'most' and cr3 the 'least' important from the EFL viewpoint.

cr1   e.g. belief/believe; meet/meeting (has a morphological similarity but not antonymous

cr2   e.g. parent (n) /parent (adj.); friend's (adj.)/friend (n) (a difference in part of speech)

cr3   e.g. trust/mistrust; happy/unhappy (antonym - requires a morphological change in part by adding a prefix in this case)

4. Simple Lexical Repetition (sr)

This remained the same as that of Hoey's.

5. Substitution (s)

Substitution remained the same as Hoey's except that a priority order was given to **co-reference**, **deixis** and **substitution** (in a specific sense) as below with co-reference being the most important and substitution the least although on the total ranking scale of lexical repetitions there is really no significant difference.

co-ref co-reference   e.g. Margaret Thatcher/ the Prime Minister (placed under lexical repetition links in the analysis)

d   deixis   e.g. *This* will be discussed tomorrow.

s   substitution   e.g. Dr. Cortazzi is in his office. *He* is busy.

6 Arguable Cases

All arguable cases were omitted from the analysis.

For practical purposes, *collocations, superordinates, hyponomy and meronomy* not entering under the lexical criteria outlined above were also not included in the analysis.

Ellipsis was also omitted from the analysis as it is often not clear in these particular basic writers' texts what exactly was omitted structurally and, therefore, its inclusion may lead to too many arguable cases. Hoey also attests to the problems encountered in identifying ellipsis in texts and also to the difficultly of using it in future computational analysis (pp.74-75).

C. Identifying, Recording and Calculating the Links in the Texts

The same procedure in identifying and recording the links outlined by Hoey (1991a) was followed. However, some additional information was obtained on frequency and types of links and distance between links necessary as a first step in order to answer the research questions. Details of the identification, recording and calculating the data before putting them into the computer for statistical testing is given below based on a worked text which was part

of the analysis, referred to as Text 1 (see Appendix K). The example is data obtained from a D1 LT written by an English educated student and is one of the texts included in the extension of the data analysis (see Chapter Ten) and a student included in the interviews (see Chapter Eleven and Appendix Q). The steps in this procedure (which were applied to all the 80 texts) are given below and data obtained from the 80 texts were put in the SPSS spreadsheet in the computer for statistical analysis. All data were coded according to the major variables of holistically rated level of the text (HT, MT, or LT), and the students' study language (English or French).

1. Recording the Links from the Text to the Repetition Matrix

After the text was typed, the lexical cohesion links were identified according to the order of priority given above. The links were recorded on the *Repetition Matrix* (see Appendix L for sample repetition matrices). In each cell of the repetition matrix, the type of lexical cohesion link identified and chosen is mentioned by its symbol followed by the lexical item from the earlier sentence and then the lexical item from the later sentence. Thus, in the example text (text 1), Sentences (S) 2 and 3 (the later sentences) have no links with Sentence (S) 1 (the earlier sentence) and the cells are left blank; *S4 has three links with S1* which are indicated as *sr:period-period, sr: life-life, sr: teenagers-teenagers* and so forth down the first vertical column.

It is noted on the D2 repetition matrix of the text written by the same student that S17 has two links with S14 and these are also recorded in order of importance, the first noted lexical items being the more important in EFL texts: *cr2: teenagers-teenagers', sr: parents-parents* (see Appendix L). The vertical columns indicate links with earlier sentences and the horizontal columns indicate links with later sentences. If a lexical item had more than one possible type of link between any pair of sentences, then the link recorded would be that one that is higher on the priority cohesive scale. No lexical item can enter into more than one link between a pair of sentences.

2. Converting the Links from the Repetition Matrix to Raw Frequencies in the Cell Matrix

Once all the links are recorded on the repetition matrix, they are converted into raw frequencies onto the *Cell Matrix* in the following way:

Beginning with the first vertical column of the repetition matrix, it is noted that the number of links S2 and S3 has with sentence S1 is *zero*. Zero is recorded in the cell matrix in the first and second cells in the vertical column (see Appendix M). S4, and S5 have three and two

links with S1 respectively and so the corresponding cells in the cell matrix are filled accordingly. This procedure is continued until all the links with S1 are recorded in the cell matrix. The procedure is then repeated with S2, S3 etc. until the final sentence (see Appendix M for sample cell matrices). As will be seen below, both the repetition matrix and the cell matrix are used as data sources for a variety of interpretations concerning linkage and bonding in the text.

3. Calculating the Percent Frequency of Links in each Type of Paragraph

The percent frequency of links between pairs of sentences was calculated from the cell matrix. For example, the cell matrix for Text 1 (Appendix M) indicates that there are 28 links (or 38.89% of the total number of links in the text) in the introduction with consecutive sentences and only 2 or 2.78% with previous sentences. To calculate the number of links each sentence has with consecutive sentences, the links in the vertical columns are added (see Text 1 in Appendix M). Since there are three sentences in the introduction, then the first three columns are added. To calculate the number of links each paragraph has with previous sentences, the concerned horizontal lines are added. The same procedure is carried out for the body and concluding paragraphs. Thus, there are 43 links (or 59.72%) in the body paragraph with consecutive sentences and 47 or 65.28% with previous sentences. There is 1 or 1.39% links in the concluding sentence with consecutive sentences and 23 or 31.94% with previous sentences. As is expected, there are more links in the introduction with consecutive sentences than with previous sentences, since the former links serve to open topics which clearly are earlier in the text. The word *consecutive* as it is used here is used interchangeably with *subsequent* hereafter. The data was then put in the SPSS spreadsheet for statistical analysis.

4. Calculating the Percent Frequency of the Type of Links in the Whole Text

Once all the links were recorded in raw frequencies onto the cell matrix, the frequency of each type of link in the whole text was recorded in a table. The raw numbers of the different types of links are obtained from the repetition matrices (see Appendix L), tallied and recorded in a table as shown in Table 7.2 below for each text. The figures in Table 7.2 indicate the frequency of each type of repetition link appearing in the whole text that was obtained from the Cell Matrix for Text 1. Also the frequency of each type of link is expressed as a percentage out of the total number of links obtained from the Cell Matrix. For example, in this particular text, there were N=54 simple repetition cohesive links (sr) which formed 75% when the number of simple repetition links was calculated as a percentage out of the total 72 links in the whole text.

Table 7.2   Number and Percent Frequency of the Types of Links in Text 1

Type	N	%
cp3	0	0
cp2	0	0
cp3	0	0
spp	0	0
smp1	0	0
smp2	0	0
cr1	3	4.17
cr2	3	4.17
cr3	0	0
sr	54	75.00
co-ref	0	0
d	2	2.78
s	10	13.88
Total	**72**	**100**

From Table 7.2, it can be seen that the highest percentages of links in Text 1 were simple repetition and the grammatical links, and the lowest was only a low frequency of the higher priority links of complex repetition. This is to be expected since this text was holistically rated low and the more sophisticated lexical items are not present. Similar tables with numbers and percentages for each lexical link for each of the 80 texts were made and data put into the SPSS spreadsheet for statistical analysis.

5. Calculating the Percent Frequency of the Intervening Sentences between the Pairs of Links in the Whole Text and in Adjacent Sentences

In addition to calculating the number of types of links in the whole text, the intervening number of sentences (referred to as the *distance*) between each pair of link by type was calculated based on the information from the cell matrix. For example, in Text 1, there are two intervening sentences between the *three* links formed between S4 and S1 and so *3* (referring to three cases of *sr* having two intervening sentences between the lexical items that form the link) is recorded in the box near *sr* in the vertical column of the table provided (similar to Table 7.3 below) corresponding to the horizontal column which is labelled 2 (referring to the number intervening sentences). Another example is the *d* link formed between S5 and S4, with no sentences intervening. Thus, in the Table 7.3, *1* (referring to one case of a *sr* link having no intervening sentences between the two lexical items that form the link) is recorded in the box near *d* in the vertical column corresponding to the horizontal column which is labelled 0 (referring to no intervening sentences or adjacent sentences).

When this procedure is carried out for all the links in the text, then the tallies in each box are added and expressed as a percentage of the total number of that type of link in the whole text. For example, in Text 1, 10 out of the total 54 sr links in the whole text are between adjacent sentences which is expressed in Table 7.3 below as a percentage 18.52 indicating that most of the sr links in this particular text are adjacent. Also, there was a total of 14 adjacent links (which included all the thirteen types) out of the total number of 72 links in the text which is expressed in Figure 7.3 below as a percentage 19.45, again indicating that the highest percentage of links (when all the thirteen were included) were between adjacent sentences.

The above procedure in recording and calculating the number of intervening of sentences between links was carried out for each of the 80 texts and all data was put into the SPSS spreadsheet for statistical analysis.

Table 7.3   Percent Frequency of Intervening Sentences Between Links in Text 1

Links	Number of Intervening Sentences Between Links											
	0	1	2	3	4	5	6	7	8	9	10	11
cp3												
cp2												
cp3												
spp												
smp1												
smp2												
cr1			33.33					33.33				
cr2					33.33					33.33	33.33	
cr3												
sr	18.52	5.56	12.96	9.26	9.26	9.26	7.41	9.26	3.70	5.56		3.70
co-ref												
d	100											
s	20.0			10.0		10.0	10.0	10.0	10.0	10.0	10.0	10.0
Total	19.45	4.17	11.11	8.33	8.33	8.33	6.94	9.72	4.17	6.94	2.78	4.17

Links	Number of Intervening Sentences Between Links										
	12	13	14	15	16	17	18	19	20	21	22
cp3											
cp2											
cp1											
spp											
smp1											
smp2											
cr1		33.33									
cr2											
cr3											
sr	3.70		1.88								
co-ref											
d											
s											
Total	2.78	1.39	1.39								

Table 7.3 indicates that the maximum number of intervening sentences between any of the links is 14 (although the table continues until 22). It is noted that about 65% of the links have up to 5 intervening sentences between the two lexical items that form the link. This is also expected in a low-rated text in which linking is likely to be over shorter distances.

D. Identifying, Recording and Calculating the Bonds in the Text

Since one of the research questions is to find out the relation between lexical cohesion and text quality, lexical cohesion being operationally defined as the percent frequency of bonds, the data obtained from the links in the texts were used to collect data on the bonding. This entailed the procedures outlined below.

1. Calculating the Percent Frequency of Bonds in the Whole Text

Since bonded sentences are claimed to form coherent texts, their frequency and patterns were investigated in the texts analyzed. The cell matrix was used as a data source to obtain the number of bonded sentences in the text. As Hoey points out concerning the Cell Matrix, "...there is considerable variation in the number of repetitions a sentence may have with others" (p.91).

The figures in Table 7.4 summarize the information from the the Cell Matrix for Text 1 indicating that out of the 136 cells in the matrix, 81 (59.56%) are empty. The rest of the cells indicate that 41 show one repetition link only which gives a total of 122 or 89.71% (over two thirds) "..of sentence pairs ..not significantly connected by repetition" (p.91). The density of linkage (as Hoey refers to it) of the rest of the sentences varies between 2 to 3 which together form 10.29%, representing only one tenth of the sentence pairs being significantly connected in this particular text. This is clearly a low density linkage text when it is compared to the density of linkage in the Political Text that Hoey analyzed in which 70% of sentence pairs were not significantly connected and 30% were.

Table 7.4 Percent Frequency of Cells with Repetition Links in Text 1

N of Links	N of Cells	% Cells
0	81	59.56
1	41	30.15
2	11	8.09
3	3	2.20
4	0	0
Total	**136**	**100**

Hoey comments "Since we are interested in repetition that appears to serve some text-organizing function, ...What we need is a degree of repetition high enough to distinguish signficant pairs from insignificant pairs and low enough to leave us with something to investigate. We will regard three links, therefore, as our cut-off point for this text, and we will term a connection made between any two sentences by virtue of there being a sufficient number of links between them a bond. So lexical items form *links*, and sentences sharing three or more links form bonds" (p.91).

However, he mentions that each text may have different cut off points depending on the length and lexical density. For Text 1 (results in Figure 7.4), it seems that if three links and above are taken as significant, there will be only 3 bonds or 2.20% of bonding in the text; if two links and above are taken, there will be 14 bonds or 10.29% of bonding in the text (which is still lower than that of the Political Text); if one link and above are taken then 40.44% of bonding will be taken as significant, which is probably too high for any significant findings.

After tables similar to that of Table 7.4 were calculated and the results obtained (see Appendix O.I. for calculating the link threshold for the EFL texts) for all the 80 texts, it was decided to consider sentences sharing *two* links or more to form bonds; specifically, **two links equal one bond** as the cut off point for the EFL texts. Nevertheless, it was also decided to carry out statistical testing on three links equal one bond to see whether there would be any signficant results. One link equal one bond was not considered since this would be accounting for most of the links in the texts and thus less chance to obtain significant findings. The data obtained in the tables were put in the SPSS spreadsheet for statistical analysis.

2. Calculating the Percent Frequency of Bonds each Sentence Has with Others

In order to investigate the *frequency* and *patterns* of the bonding in the texts, the data in the Cell Matrix was first converted to a matrix (referred to as the *Coordinate* or *Bond Matrix* interchangeably in the present study) that indicated the number and percentage of bonding each sentence had with consecutive sentences and with previous sentences. Hoey (1991a, p.92) uses the term *net* "...to describe both the complete set of bonded sentences and any sub-set of them ..." Figure 7.4 diagrams the net for the interconnections of the bonded sentences for the first sixteen sentences of the Political Text. A straight line indicates that a pair of sentences form a bond and the dotted lines represent cases that are arguable.

This net shows that S 5, 9, 10, and 13 are not bonded to either consecutive or previous sentences. S1 seems to be a topic sentence since it is is connected to almost all the following sentences. S3 and S4 seem to be sub-topic sentences connecting with many of the following

sentences further down the text. However, as can be seen from the net, interpretation of setence relationships is not easily made in a systematic way. There seems to be a need to present the data in a way which would make relations among sentences more easily and clearly identifiable. Hoey recommends converting the data onto a coordinate matrix from which data could be easily discerned.

Figure 7.4 Net of Bonds for the First Sixteen Sentences of the Political Text
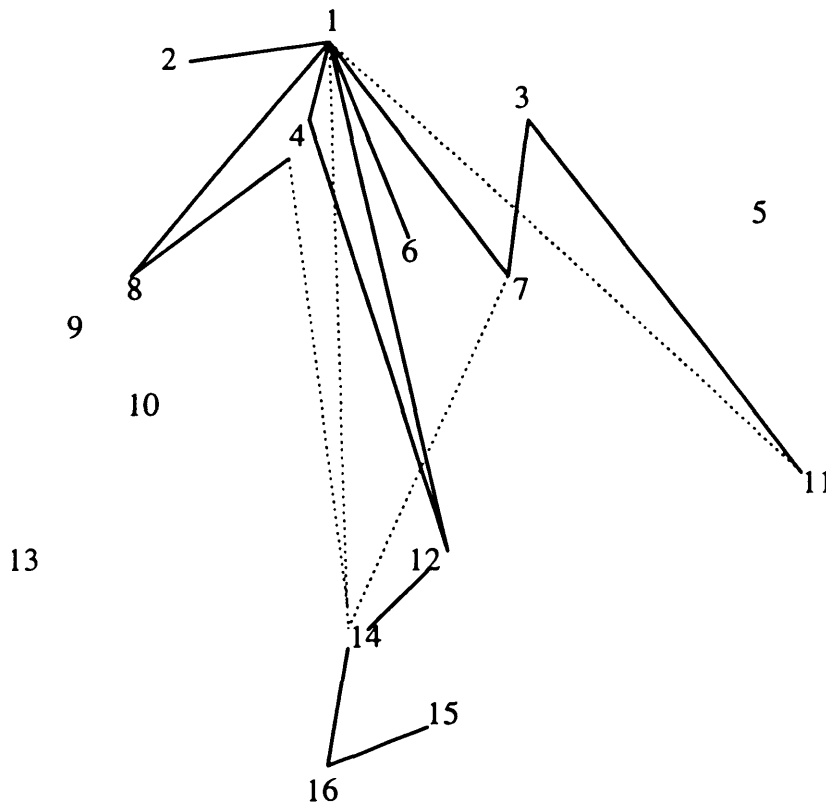
(Hoey, 1991a, p.93)

Hoey presents the coordinate matrix in Table 7.5 below which more clearly shows the interconnection of bonds for the net in Figure 7.4 of the first 16 sentences in the Political Text (The coordinate matrix of Sentences 17-40 of the same text is also included).

Table7.5 Coordinate Matrix for the Political Text (Hoey, 1991a, p.104)

1 (-,15) (-,12)	11 (2,0) (1,0)	21 (4,4)	31 (0,0)
2 (1,0)	12 (2,4)	22 (1,1)	32 (0,1)
3 (0,2)	13 (0,0)	23 (5,6)	33 (0,1)
4 (1,6) (1,5)	14 (4,1) (1,1)	24 (5,0)	34 (5,0)
5 (0,0)	15 (0,1)	25 (1,2)	35 (1,0)
6 1,0)	16 (2,1)	26 (6,4)	36 (2,0)
7 (2,1)(2,0)	17 (1,6)(1,5)	27 (0,0)	37 (1,1)(0,1)
8 (2,0)	18 (0,0)	28 (8,3)(7,3)	38 (11,1)
9 (0,0)	19 (0,5)	29 (0,1)	39 (5,0)
10 (0,0)	20 (1,9)	30 (0,0)	40 (2,-)

The numbers on the left side refer to the sentence numbers as they appear consecutively in the text. Table 7.5 shows that each sentence is given a two-figure co-ordinate, "...the first showing the number of previous sentences to which it is bonded, the second showing the number of subsequent sentences to which it is bonded" (p.104). Thus S1 is bonded to 15 consecutive sentences (8 of which are shown in Figure 7.4; 6 by the straight lines and two arguable cases by the dotted lines). S2 is bonded to 1 previous sentences and no consecutive sentences. The second set of coordinates in the Table 7.5 are those with the arguable cases not included. Such a table is easier to interpret systematically. The *bond matrix*, Table 7.6 below, an adaptation of Hoey's coordinate matrix was used to convert data from the cell matrix that could then be used to study the bonding patterns over the text.

Two bond matrix tables were recorded for each of the 80 texts; one based on two links equal one bond and the other on three links equal one bond. The figures in Table 7.6 indicate the bonding in Text 1 when three links equal one bond were considered.

Table 7.6 Bond Matrix When Three Links Equal One Bond for Text 1

P	S1	NBP	NBC	%BP	%BC	S2
I	1	-	1	-	33.33	4
	2	0	0			
	3	0	0			
B1	4	1	0	33.33		
	5	0	1		33.33	15
	6	0	0			
	7	0	0			
	8	0	0			
	9	0	0			
	10	0	1		33.33	11
	11	1	0	33.33		
	12	0	0			
	13	0	0			
	14	0	0			
C	15	1	0	33.33		
	16	0	0			
	17	0	0			
		3	3			

P   = *Paragraph Type 1 = Introductory   B1 = Body paragraph 1 etc.*
            C = Concluding

S1   = *Sentence number in the text*
NBP   = *Frequency of bonds the sentence has with previous sentences*
NBC   = *Frequency of bonds the sentence has with consecutive sentences*
%BP   = *Percent frequency of bonds the sentence has with previous sentences*
%BC   = *Percent frequency of bonds the sentence has with consecutive sentences*
S2   = *The number of the consecutive sentence that is bonded to the corresponding S1 number*

The data obtained in a similar way as those in Table 7.4 from the the 80 texts were put into the SPSS spreadsheet for statistical testing. Then, the data in tables similar to that of Table 7.4 were used to collect the following information from all 80 texts. An example of the procedure and calculations will be given below based on Text 1.

a. Number and Percentage of Sentences in Each of the Paragraphs

In Text 1, there are 3 sentences or 17.65% of the total 17sentences in the introductory paragraph, 11 sentences or 64.71% in the body paragraph and 3 sentences or 17.65% in the concluding paragraph.

b. Percentage of Sentences According to the Number of Bonds

In order to obtain the percentage of sentences according to the number of bonds each sentence has with both consecutive and previous sentences, data were obtained from the bond matrix and placed in a table for each text when both three and two links equal one bond were considered. The figures in Table 7.7 below indicate the quantity of bonds and the corresponding quantity of sentences for Text 1 when three links equal one bond. The same was done when two links equal one bond and for each of the 80 texts and data put on the SPSS spreadsheet for statistical analysis (see Appendix O.II.)

Table 7.7   Percent Frequency of Sentences According to Quantity of Bonds for Text 1

Quant.of Bonds	Quant.of Sentences	Percent of Sentences
0	11	64.71
1	6	35.29
	17	

It can be seen that in Text 1, 11 sentences or 64.71% of the total quantity of sentences have no bonds with either consecutive or previous sentences and 6 sentences or 35.29% are bonded. It seems that the majority of the sentences have either 0 (considered marginal in Hoey's analysis) or 1 bond; only 6 sentences have 1 bond. It seems that for this text, one bond is central. However, when all the data were calculated for the 80 texts, it was decided to consider sentences with a minimum of 2 bonds with either consecutive or previous sentences as central.

c. The Percentage of Bonded Sentences each of the Types of Paragraphs Has with Consecutive and Previous Sentences

Since in composition teaching it is important to note the opening and development of ideas over the text and specifically from the introduction to the body and conclusion, it was interesting to obtain data on the frequency of bonded sentences each type of paragraph has

with the consecutive sentences in the text. The frequency of bonded sentences each type of paragraph has with previous sentences was also of interest since it shows the patterns of topic concluding sentences in the text.

Data was obtained from the Bond Matrix (similar to Table 7.6) and put into the SPSS spreadsheet for each text when three and two links equal one bond. The figures in Table 7.6 indicate that there is one sentence in the introductory paragraph that has one bond with a consecutive sentence (a total of 1 bonded sentence or 33.33% of the total 3 bonded sentences). Also, Table 7.6 indicates that 2 sentences in the body paragraph has one bond each with two consecutive sentences (a total of 2 bonded sentences or 66.67% of the total 3 bonded sentences). The concluding paragraph has no bonded sentences with consecutive sentences. When the whole sample of 80 texts was analylzed most of the bonds appeared between sentences in the body paragraph and consecutive sentences (see Chapter Eight) as is expected since these are developing *topic opening sentences* (see Chapter Ten). Table 7.6 further indicates that there are two bonded sentences (or 66.67% % of the total 3 bonded sentences) in the body paragraph with previous sentences and one bonded sentence in the conclusion with a previous sentence (33.33% of the three bonded sentences). There are no bonded sentences with previous sentences in the introduction. The lower percent of bonded sentences with previous sentences in the introductory paragraph when compared with the same with the consecutive sentences is expected since the purpose of introductions is usually to open topics and not close them. Similar data were obtained for the 80 texts and put in the SPSS spreadsheet for statistical analysis.

It was also interesting to investigate the percentage of sentences that were bonded with consecutive sentences between the Introductory Paragraph and the Body Paragraph(s) (referred to hereafter as *IB*), the same between the Introductory Paragraph and the Concluding Paragraph (referred to hereafter as *IC*) as well as between the Body Paragraph(s) and the Concluding Paragraph (referred to hereafter as *BC*). It is noted from Table 7.6, that there is 1 (or 33.3%) IB bond between S1 and S4. There are no bonds between IC. There is one bond within the body paragraph, S10 and S11; and one bond between the body paragraph and the conclusion, S5 and S15. In this text, therefore, 1 bond occurs between the introduction and the body paragraph, another within the body paragraph, and a third between the body and the conclusion. There are no bonds at a longer distance between the IC (see Appendix O.III.). (The division of the three types of paragraphs were taken from the student orthographical

paragraph format in which the first line of a new paragraph would be indented). Data was put on the SPSS spreadsheet.

d. Percent Frequency of Intervening (or distance of) sentences (interchangeably referred to as the *bond distance indicator* in the present study hereafter) Between Bonded Pairs of Sentences

Some research findings indicate conflicting results as to whether or not cohesive linking over longer distances in texts shows maturity in writing in high rated texts as compared to the linkage in the low rated (see Chapter Five, e.g. Witte & Faigley, 1981; Neuner, 1991; Hoey, 1991a, b). Hoey pointed out that in the Political Text, bonding occurred at very long distances and sometimes volumes aprt which, according to him, indicates either knowledge of the subject or the work in particular, both positive aspects on the writer's part. Ssince it is also argued that linkage over longer distances in texts shows maturity in writing, it was interesting to find out the patterns of bonding over distances in the EFL high and low rated EFL essays in the present study. To investigate this, the percent frequency of intervening sentences between bonded pairs of sentences was taken from the bond matrix (see Table 7.6) from each of the 80 texts..

The figures in Table 7.6 above indicate that S5 and S15 are linked by one bond 9 sentences apart (excluding S5 and S15), S1 and S4 are linked by one bond with 2 intervening sentences and S10 and S11 are adjacent (no intervening sentences). These data appear in Table 7.8.

Table 7.8   Percent Frequency of Intervening Sentences between Bonded Pairs of Sentences When Three Links Equal One Bond in Text 1

Q.of IS	Q. of Bonds	% of Bonds
0	1	33.33
2	1	33.33
9	1	33.33
	3	

Q of IS   =   Quantity of Intervening Sentences
Q of Bonds   =   Quantity of Bonds between pairs
                          of sentences
% of Bonds =   Percent of Bonds between pairs
                          of sentences calculated on the
                          basis of the total number of
                          bonds in the text

The figures in Table 7.8 indicate that 1 bond (or 33.33%) between pairs of sentences had 2 intervening sentences, 1 had 9 and 1 had none. In other words, for this particular text, 33.33% of the bonds appear between two sentences apart, 33.33% of the bonds appear between nine sentences apart and 33.33% are adjacent. Although not apparent in Text 1,

when all the low texts were calculated it was found that bonding is at shorter distances over the text when compared to the HT (see Chapter Nine).

To calculate the mean bond distance indicator for each text, the following formula was applied for each of the 80 texts where each quantity of bond(s) with each quantity of sentence(s) was multiplied, added together and then expressed as a proportion out of the total quantity of sentences in the text. The formula is given below.

Quantity of Bonds X Distance 1 + Quantity of Bonds X Distance 2 etc.
Quantity of Sentences in Text

Thus for Text 1, the formula produces the following mean bond distance indicator where the quantity of intervening sentences between the bonded pairs of sentences is expressed as a proportion out of the total quantity of sentences in the text. This results in a 0.65 bond distance indicator. The higher the proportion, the longer the distance bonds connect over the text. The proportion of 0.65 is considered low (when compared to proportions of between 10-14 obtained in some of the high-rated texts) and indicates bonding over shorter distances which is expected in a low-rated text such as Text 1.

$$\frac{1x0+1x2+1x9}{17} = \frac{11}{17} = 0.65$$

These proportions for the 80 texts (for three and two links equal one bond) were put into the SPSS spreadsheet for statistical analysis.

C. Significance of the Net of Bonds

Hoey used the analysis of the cohesive categories in the text as a 'tool' to see the significance of the bonds in contributing to the coherence of the texts. He found that when bonded sentences were placed together, coherent sub-texts or summaries were possible. There was more than one possible summary of the whole text, depending upon which bonded sentences were placed together. In addition, he showed through extensive examples from the Political Text that topic opening sentences (topic sentences) had a high number of bonds with consecutive sentences and topic closing sentences (concluding sentences) had the same with previous sentences. These findings have great implications for the teaching/learning of writing which will be discussed in Chapter Twelve.

This significance of the net of bonds was applied to a sub sample of the sample of 80 texts to test for the contribution of cohesion to coherence in the texts. Chapter Ten gives the details on the procedure, method of analysis and results of this extension of the investigation.

Specifically, this involved identifying the *marginal, central* and *topic controlling sentences* which aided in making the sub-texts or summaries of the original texts. These sub-texts or summaries were then rated by teachers for coherent organization of ideas.

The figures in Table 7.6 concerning Text 1, indicate that S1,5,10 have one bond each with one consecutive sentence. These are identified as topic opening sentences and their place in the introductory paragraph and beginning of the first body paragraph reinforces the teaching of topic and thesis statements as being placed early in the essay. Similarly, S15 has 1 bond between it and the previous sentence S5 which also reinforces the idea that some sentences later in the text are summative. The bonding between S10 and 11 indicates that topics may open in the body.

Since the focus of the study was on a description of the lexical cohesion patterns, testing the claim of the significance of the bonding in creating coherent texts could not be dealt with in an extensive way, but this is meant to be a step towards future research (see Chapter Ten).

IV. Limitations in the Present Study

Constraints in the present research will be discussed under the following headings:

A. The Research Design

1. The research design is one which is a combination of an ex post facto and a pre-test post test design (Hatch, 1991, p.87; Brown, 1988, p.154). As such, it attempts to describe textual features of cohesion in two texts on the same topic written by the same students in order to find any relationship between cohesion and text level and students' study language as well as to ascertain any differences in both texts and/or between the texts according to text level and students' study language.

The research does not attempt to make any causal claims as it was not possible to have a true experimental design (with control and experimental groups and treatment throughout the semester); any knowledge of an experiment would have been likely to affect the student and teacher performance. The interest in the present study was more on obtaining a description of the cohesive relationships in texts that were part of the regular program setting which would, of course, have more valid outcomes and practical implications for teachers and students. A few comments by Hatch (1991) are given below on the alternative to setting up a true experimental design and the validity of using a design such as the one used in the present study for text analysis.

"When we cannot reach the ideal of true experimental design (random
selection and assignment, control of pre-existing differences among groups,
and the use of control groups), what's a body to do? One possibility is the

use of ex post facto designs. In such designs you will look at the type of
connection between independent and dependent variables or the strength of
the connection without considering what went before. No treatment is
involved." (p.99)

"We use post hoc designs for text analysis too. The research tells us what is
going on, not the effect of some treatment. We can examine text features...
The analysis will describe what is already there, not a change brought about
by some instructional treatment..."

She also indicates that this type of design is useful in comparing groups of students (which is

similar to comparing the high and low rated in the present study).

"...it lets us describe some data and see how the values vary across groups of
subjects, across tasks, and so forth..."

"We might want to compare the results of students from different first
language groups, or those of immigrant vs. foreign students, or those of
students who have gone through a series of courses in our program vs. those
admitted at some higher level." (ibid., p.100)

Hatch (1991) also mentions that if random selection is incorporated in ex post facto designs,

generalizations of the results are possible to a certain extent.

"Ex post facto designs which incorporate random selection, of course,
would allow for generalization of results to some degree." (p.100)

Since the FI texts used in the cohesive analysis were randomly selected, the results are

generalizable to the total population of 202 essays and similar populations in the future

semesters. The present study is also a comparative one of cohesion patterns between different

levels of writing qualilty on each of the D1 and D2 texts. It is recognized that two samples of

students' writing taken almost at the same time would better indicate and confirm their

performance and in relation to the present study, therefore, results obtained from two text

samples from each student would better confirm the cohesion patterns found in the high and

low texts. However, the closest the second text sample could be obtained on the same topic

and from the same students was three months apart from the sitting for the first text.

Although this time interim is a limiting factor, the reseacher opted for it over just one sample.

Also, the results are reported separately for D1 and D2 and viewed in this way may be

considered as performance on entry and performance on exit which could offer some

interesting findings for the teaching/learning situation. However, it is the comparative results

concerning those between D1 and D2 that should be interpreted with caution and only as a

preliminary step to a later true experiment design and more rigorous statistical testing

procedures. They were included in the present study as some preliminary insights could be

drawn for the teaching/learning of the essay. Hatch (1991) also notes the importance of obtaining descriptions before setting up an experimental design.

> "Another reason, though, is that finding out 'what is going on' is a first step in planning for instructional innovation. Once we have confidence in our descriptions of what is happening, we can plan for change. The evaluation of the treatment for bringing about change will, of course, require a different design." (p.100)

2. Since there were no more than 32 Diagnostic 1 High Texts, and since the initial selection of the high and low texts was drawn from the Diagnostic 1 texts and the researcher wanted an equal number of HT and LT for the cohesive analysis on D1, the total sample had to be limited to 20 HT and 20 LT to allow for random sampling. However, this was felt to be a reasonable sample since considerable in-depth analysis was being carried out on each text.

3. The work had to be done within the constraints of the regular teaching program and use the intact classes and teachers that were present and, therefore, could not control for the backgrounds of the students prior to coming to the unviersity nor for what other subjects the students were registered in the university at the time of writing the essays. Also, the selection of the essays had to conform to the availability in the program. However, in selecting the Freshman I course it was possible to have students who were in comparable programs in the university (see Chapter Six) since this is the first English course taken in the first semester of study for the majority of students, and in choosing a stratified random student sample, a representative sample of the population was obtained on as many variables as was possible.

4. The present study focuses on two sample texts from each student written in one genre of writing, exposition, with a particular organizational structure, that of cause-effect. Thus results of the present study are generalizable only to that particular genre of writing. The purpose of the study was not to make generalizations of the students' writing proficiency per se (although the external validity testing carried out does offer support towards this end) nor to compare different writing genres. It generalizes to the genre text type to the Freshman I population in the Fall 1993-94 semester and to similar genre type of essays written by a similar type of student. In a sense, this is not a limitation, but needed research to focus on genres of writing rather than on writing in a general way.

6. Although not a limitation, it should be noted that an EFL Program curriculum change was implemented by the university at the start of the academic year 1994-95. The Freshman I (5 hour) course was reduced to three hours per week, entitled English 009 and students were placed according to an entrance EEE range of 500-549 (equivalent to TOEFL 525-574,

IELTS 5.5-6.5). Freshman English I (3 hours) remained three hours, was entitled English 101 and students were placed according to an entrance EEE range of EEE 550-599 (equivalent to TOEFL 575-624, IELTS 6.5 plus) (see Appendix C course objectives). This change was necessitated to give students in the Freshman I (or English 009) an opportunity to develop their basic language skills over two courses (English 009 and 101) before being promoted to the higher Freshman English course II (or English 102). Also it restricted the EEE range of scores in any one English course.

Although the course hours and EEE range into the Freshman English I course 009 differed in comparison to the previous Freshman I course (the focus of the present study), this change did not disrupt the present research since the sample of essays had already been selected in the first semester of the academic year 1993-94. Also, the relevance and possibility of generalizing the results of the present research to the present Freshman English I 009 course are still valid. First, the population and sample of students who wrote the texts are comparable to those in the present English 009 courses. Second, although the course has been revised with more of an emphasis on basic English skills at the sentence and paragraph level rather than at the essay level, the type of essay that was analyzed for the present research is still being assigned in the English 009 classes. Thus generalizations made from the present research results could still be applied to that essay genre. Third, since this research is not based on an experimental design with a control group testing the effects of some treatment but a description of the patterns of lexical cohesion in one type of essay rated at high and low proficiency levels by the teachers, the results are still relevant to similarly rated essays. Last, and quite significantly, although there have been some improvements in the course, the students' writing of the essay since the sample of essays have been selected and analyzed still show a specific inadequacy on the part of the students to link their sentences coherently at the discourse level. Even though rigorous research methods to prove the foregoing have not been obtained since the present study, this inadequacy is attested to by teacher evaluations of the students' work in the program and the comments of many students that they find difficulty in writing a clear essay by the end of the semester. Thus, there still seems to be a need in helping students produce better 'linked' essays to supplement the curriculum change.

B. Evaluation of Texts

As part of the regular teaching situation, the D1 and D2 texts had to be scored at the times of the assignments. Results are considered more reliable if evaluators rated the texts 'blindly'; that is, they did not know which are the pre or post texts and all rated together. The method

followed, however, did not affect the results as there was a high postive correlation with a random sample of texts evaluated according to both procedures.

C. Cohesive Analysis of Texts

The analysis of the 80 texts (20 HT and 20 LT on DI; 14 HT, 15 MT, and 11 LT on D2) was carried out by the researcher. The lexical cohesive analysis is quite an in-depth and time consuming one. It needs a certain level of expertise. Thus, the number of texts that could be handled by one person doing the analysis manually is also a limiting factor. It was not possible to train any of the teachers in the program to assist as they all had very heavy course loads during the academic year and other English teachers in Lebanon are few, very busy and not highly qualified for such tasks. However, the researcher's supervisor did check some of the analyses, and a highly qualified statistician in Lebanon also checked through some of the text analyses during the statistical procedures. Also, an over-riding factor was that the Hoey's analysis is very clearly outlined for replicable studies and in adapting it for purposes of the present study, consistency of application was observed. If there were any errors, (which is not unusual in such manual tasks), the criteria of two or three links equal one bond used would not pick up most of them leaving a small margin for any error.

Summary

This chapter dealt with 1) giving the rationale for applying Hoey's Lexical Cohesive Categories, 2) outlining Hoey's lexical cohesive categories and 3) describing an adaptation of these categories for use in the present study and how the bonding was calculated for statistical analysis. The chapter concluded by presenting the constraints the researcher faced in the course of the research. If the simile may be allowed, this chapter seems like a journey mapping out new waters on which a newly constructed ship of cohesion sails.

The following three chapters present the results of the study in three main parts: *Chapter Eight* presents results on the holistic and analytic evaluation of the essays along with some basic charactersitics of the texts, *Chapter Nine* presents the in-depth lexical analysis of the texts and *Chapter Ten* gives some preliminary results pertaining to an extension of the cohesion analysis related to the contribution of cohesion to the coherence of the texts. Chapter *Eleven* details the procedure, method of analysis and results of the interviews carried out on a sample of students who took part in the writing sessions concerned.

PART FOUR   RESEARCH RESULTS

CHAPTER EIGHT GENERAL TEXT CHARACTERISTICS

"And he who is versed in the science of numbers
can tell of the regions of weight and measure,..."
Gibran, The Prophet

This chapter is the first of four chapters in the presentation of the results of the study. *First*, it presents the results of the holistic and analytic evaluation of the 80 Freshman I texts and *second*, it reports on some general characteristics related to text length. Some results concerning the evaluation of Freshman English II texts is given for comparative information of students' performance across these two Freshman EFL English Composition courses and to show the relative attention needed in the Freshman I course. Since this is the first in-depth research on students' writing specifically regarding cohesion at the university level in Lebanon, and at LAU in particular, it was opted to give the results in as much detail as possible in the hope that this will be of some help to the EFL Programs in the area and future researchers.

The analysis of the data and the results in the following four chapters will be discussed according to the *level* of the texts (high texts-HT, mid-texts-MT, and low texts-LT as assessed by teachers) and *study language* (English or French) of the students (during their secondary studies) who wrote the texts. Numbers in population and samples are given below. Reference in the text will be according to independent pairs (202, 116, 40, 30, 8, 26) unless otherwise specified.

Population	FI	D1 N=202	D2 N=202	Total = 404
	FII	D1 N=116	D2 N=116	Total = 232
Sample for Cohesive Analysis	FI	D1 N=40	D2 N=40	Total = 80
Sample for Validity of LOC	FI	D1 N=30	D2 N=30	Sub Total = 60
	FII	D1 N=30	D2 N=30	Sub Total = 60
				Grand Total = 120
Sample for further cohesion investigation	FI	D1 N=8	D2 N=8	Total = 16
Sample for interviews	FI			Total = 26

A summary below indicates the presentation of the results according to the four chapters which is overviewed in Figure 8.1. Where indicated in the chapters, the results will be discussed in relation to one another.

Figure 8.1 Overview of Results

| General Description | *Chapter 8* |

Scores

Texts   N 40   Cohesion   N 40

Holistic   Analytic

F 1   N 202
Sample N 30
Sample N 40

F11   N 116
Sample N 30

Words

Sentences

Words/Sentence

Paragraphs

Sentences/Paragraphs

Cells

Links

Bonds

Bonds/Paragraphs

Chapter 9

Focussed Analysis

COHESION   *COHESION*

Correlations with Text Level   **Comparisons between Text Levels**

Frequency of Bonds   Frequency of Bonds

Distance of Bonds   Distance of Bonds

Types of Links   Types of Links

**Comparisons between Study Language
at the Same Text Level**

Frequency of Bonds

Distance of Bonds

Types of Links

Extending the Analysis   *Chapter 10*

Contribution of Cohesion to Coherence   N 8

Student Interviews   *Chapter 11*   N 26

Chapter Eight (The General Description of the Texts)
1. The holistic and analytic evaluation of the texts including reliability and validity studies
2. The characteristics of text length
3. The links and bonds in the texts

Chapter Nine (The Focussed Analysis)
1. The relation between cohesion and text level
2. The comparison of cohesion according to text level and students' study language

Chapter Ten (The Extension of the Analysis)
   Preliminary findings on the contribution of the presence of cohesion to the coherence of the students' texts (Following up Hoey, 1991a, p.11).

Chapter Eleven (The Student Interviews)
   The perceptions of a sample of students on their writing abilities and the F1 course.

Chapter Eight presents the results according to 1) considerations in analyzing the data, 2) holistic evaluation of the texts, 3) analytic evaluation of the texts, and 4) features of the length of the texts. The chapter concludes with a word on the data obtained concerning the cells, links and bonds that were obtained for the main study and the further investigation on cohesion specifically as it relates to bonding between paragraphs. This is represented in Figure 8.1 by a dotted line from the *general description* to **cohesion** to the *focussed analysis*.

I. Considerations in Analyzing the Data

Before the result are given, the statistical tests used and some general comments concerning the reporting of the results are outlined.

A. Statistical Tests Used in the Study

SPSS (The Statistical Package for the Social Sciences Manual, Norusis, 1993) was used to compute all results. The following statistical tests were used with the rationale indicated for each one.

1. Non-parametric Statistical Tests

These were used to test the null hypotheses since the data in the sample (although randomly selected) did not have normal distributions. (To check for normality, the researcher used the SPSS (Norusis, 1993) to plot the data in histograms and checked the mean, mode and median for each of the dependent variables. As Hatch observes,

> "When you are not sure about the linearity of the scale itself or when the
> distribution of data on the scale do not appear normal (i.e. tend to cluster
> around one or two points), a non-parametric procedure is the better choice"
> (Hatch, 1991, p.308).

Although there are more rigorous statistical tests to check for normality, they were not considered necessary for the present study. Also, since there were no previous research results to indicate the direction of the results, two-tailed probability tests were used to test for significance at a level of $p < 0.05$. However, the exact probablity significance is quoted in all cases in the present research. The following non-parametric statistical procedures were chosen.

a. The Mann-Whitney Statistical Test was used to test the hypotheses comparing the mean ranks (or central locations) of the dependent variables in the high-rated texts (HT) and the low-rated texts (LT) in Diagnostic 1 (D1) texts and then in Diagnostic 2 (D2) texts independently. The data obtained were recorded on an interval or an ordinal scale and expressed either as raw frequencies or as a percentage of the total observed of the variable discussed. Any two sets of data compared were independent (unless otherwise indicated) and not normally distributed. The choice of the Mann-Whitney Test is further justified by the following:

> "The Wilcoxon Rank Sums Test and the Mann Whitney U are actually the same test. The test compares two groups on the basis of their ranks above and below the median... The researcher may not be confident...that the [mean] is the best measure of central tendency, but is certain that each S (or observation) can be ranked in respect to other Ss (or observations). In such cases, the Rank Sums Test, rather than the t-test, should be selected to compare the two groups" (Hatch, 1991, p.274).

> "The U test is analogous to the t test in that it is used to test the null hypothesis that two samples are the same in terms of means. It is sometimes used instead of the t test because it requires neither the assumption of normal distribution in each of the two samples nor that of equal variances and can be used with ordinal scale dependent variables. It does assume, however, that the scores in each of the two samples are independent and that the distributions of the two groups are similar except for central tendency" (Brown, 1988, p.175).

> "The Mann-Whitney Test, also known as the Wilcoxon-Test, does not require assumptions about the shape of the underlying distributions. It tests the hypothesis that two independent samples come from populations having the same distributions. The form of the distribution need not be specified. The test does not require that the variable be measured on an interval scale; an ordinal scale is sufficent" (Norusis, SPSS, 1993, pp.377-378).

> "The Mann-Whitney Test requires only that the sample be random and that values can be ordered. ...but from a markedly non-normally distribution." (Norusis, SPSS, 1993, p.380)

The test is calculated in the following way:

"The statistic for testing the hypothesis that the two distributions are equal is the sum of the ranks for each of the two groups. If the groups have the same distribution, their sample distribution of ranks should be similar. If one of the two groups has more than its share of small or large ranks, there is reason to suspect that the two underlying distributions are different." (Norusis, p.378).

b.   The Wilcoxon Matched-Pairs Signed-Ranks Test was used to test the null hypotheses comparing the mean ranks (or central location) on paired samples of any of dependent variables in the HT (high texts) between Diagnostic 1 and Diagnostic 2 texts and the same for the LT (low texts). The two sets of scores were recorded on interval or ordinal scales and were expressed as raw frequencies or as a percentage of the total observed of the variables discussed. The Wilcoxon Matched-Pairs Signed-Ranks Test was considered as it is used

"...to test the hypothesis that the distributions of two variables are the same"
but unlike the sign test
"...incorporates information about the magnitude of the differences and is
therefore more powerful than the sign test." (ibid., p.381)(See also Hatch, 1991, p.297).

The test is calculated in the following way:

'To compute the Wilcoxon Matched-Pairs Signed-Ranks Test, the differences are
ranked without considering the signs. In the case of ties, average ranks are assigned.
The sum of the ranks for positive and negative differences are then calculated."
(Norusis, SPSS, 1993, p.381) (See also Hatch, 1993, p.298)

Both the Mann-Whitney and Wilcoxon Matched-Pairs Signed-Ranks Tests, although non-parametric tests, produce a standardized normal z statistic which indicates the strength of the relationship. "The critical z values in hypothesis testing are: $z = 1.96$ for $p < .05$ and $z = 2.75$ for $p < .01$ for two-tailed tests. The [statistical] table is read in precisely the same way whether the obtained value of z is positive or negative" (Hatch, 1993, p.594). The SPSS adjusts for rank ties in both statistical testing procedures. Probability (p) levels of $p< 0.05$ were accepted as significant for a two-tailed non-directional test.

c. Spearman rho Correlation Coefficient was used to test the null hypotheses concerning the strength of the relationship between two sets of variables on an interval scale not normally distributed. This statistical test was considered after considering that

"The spearman rank-order (or rank difference) correlation coefficient is usually
represented by the symbol *p* or rho. This coefficient is applied to ordinal data
(rank ordered) only. Of course, interval data may be converted [which the SPSS does]
for the purposes of calculating rho, ...Typically, rho is applied to small samples (of
less than 30) to test the same hypotheses as the Pearson *r*' (Brown, 1988, p.150).
(See also Hatch, 1993, p.451)

"When testing hypotheses about this correlation coefficient for ordinal data or interval
that do not satisfy normality assumptions,...Spearman Rank Correlation Coefficient is
available" (Norusis, SPSS, 1993, p.297).

The test is calculated in the following way:

"...like the Pearson Correlation Coefficient, the rank correlation between the ranks
for the rank correlation ranges between -1 and +1 where -1 and +1 indicate perfect
linear relationship between the ranks of the two variables. The interval is the same
except that the relation between ranks, and not values, is examined." (ibid., p.297)

d. Friedman's Test for Related Samples

This statistical test was used to 'compare the distributions on more than two variables on
related samples. It ranks each variable and calculates the mean rank for each variable over all
cases, and then calculates a test statistic' (Norusis, 1993, p.384)

If interval data is being tested, the SPSS converts them into ranks. With the sample size in
the present study, a correlation coefficient of rho (p) of > 0.6000 indicates a high positive
relationship. A probability level $p < 0.05$ was considered significant in the present study. In
reporting the general characteristic results (Chapter Eight) and summary of results (Chapter
12), an asterisk $(*)$ is indicated after significant results in the tables whether the results are
significant, highly significant or very highly significant. In Chapters Nine, Ten and Eleven,
however, $(*)$ indicates significant results $(p < 0.05)$, $(**)$ indicates highly significant $(p < 0.01)$
and $(***)$ indicates very highly significant $(p < 0.001)$ unless otherwise indicated.

Although the testing of the null hypotheses was carried out by non-parametric tests, the
parametric tests below were used to test the dependent variables indicated.

2. Parametric Tests

a. The Pearson r Correlation Coefficient was used to test the strength of the relationship

between two sets of independent interval data, each occasion having a sample of $N = 202$ and
$N = 116$ respectively, all data normally distributed. The following detail this procedure.

"...it is often useful to quantify the strength of the association by calculating a summary
index. One commonly used measure is the Pearson correlation coefficient denoted by
r....where N is the number of cases and Sx and Sy are the standard deviations of the
two variables. The absolute r indicates the strength of the linear relationship. The
largest possible absolute value is 1, which occurs when all points fall exactly on the
line. When the line has a positive slope, the value of r is positive, and when the slope
of the line is negative, the value of r is negative." (ibid., 1993, p.292)

'A common assumption is that independent random samples are taken from a
distribution in which the two variables together are distributed normally...either
one or two-tailed tests can be calculated.' (ibid., p.295)

Similar probability level (p) and strength of association (r) as those of the Spearman
Correlation Coefficient were accepted. (See also Hatch, 1991, pp. 436-437)

b. The T-test for Matched-Pairs Statistical Procedure was used to compare the means of two sets of paired dependent interval scores between Diagnostic 1 and 2 texts scores with normal distributions. "The assumptions underlying the t test are that "... the scores in each group are normally distributed..." (Brown, 1988, p.166).

B. General Procedures in Reporting the Results

1. Reporting the Results from a Consistent Perspective

Since the focus of the study is on finding lexical cohesive patterns in the high rated texts that differ significantly from those in the low texts and which are considered to contribute to the quality of writing from which lower proficient students could learn, the findings will be reported from the HT perspective unless otherwise indicated.

2. Reporting the results of the Mid Rated Texts in Diagnostic 2 Texts

The findings concerning the MT in Diagnostic 2 texts will be given for additional information but since they are not central to the study, they will not be part of the hypothesis testing. A main reason for the inclusion of the MT results is to give teachers at LAU preliminary comparative findings with the other two text levels: HT and LT in the Diagnostic 2 texts. However, a brief explanation about the statistical testing procedures concerning the inclusion of the MT is given below.

a. Comparing the MT with the HT and then the MT with the LT in Diagnostic 2 Texts

The Mann-Whitney statistical test was used to compare: 1) HT with LT, 2) HT with MT, and 3) MT with LT separately in Diagnostic 2 texts on the variables indicated. The main focus of the study is on the first comparison, HT with LT. However, as was explained above, the researcher felt that some preliminary findings concerning the MT may be informative to the teachers at the university where the present study was carried out, and so results from the comparisons of HT with MT and MT with LT are given.

b. Comparing the HT, MT and LT in Diagnostic 2 Texts

The Kruskal-Wallis 1-Way Anova, a non parametric statistical test was used to compare the three levels of texts on the criteria mentioned and since the results confirmed those that were carried out as mentioned above on all variables, the findings are only quoted for the first set of data. A more important reason for their non-inclusion was that the results, although confirming the comparisons carried out by the Mann-Whitney Statistical Tests, did not indicate the direction of the significance; in other words, they did not indicate which texts had higher or lower significant differences. A more rigorous statistical test is necessary for this purpose.

It is acknowledged that more sophisticated statistical procedures would need to be carried out in order for the results regarding the MT in comparison with the other two levels (HT and LT) in Diagnostic 2 tests to be fully interpreted, since the data used are not independent; that is, the same HT and LT data were used again in the comparisons with the MT. However, since the MT were not central to the present research, more rigorous testing was not found to be necessary. Any results/and or interpretations given in the present study concerning the MT should be regarded with caution and are viewed as only preliminary to more rigorous research and hypothesis testing procedures.

3. Partial Correlations

Partial correlations controlling for length of essay by mean number of words, mean number of words per sentence and mean number of sentences in the texts were carried out in addition to the correlations mentioned in the analysis of the data. Since all the partial correlation results confirmed the other correlations carried out (Pearson and Spearman as mentioned previously), and since all the data concerning the lexical cohesive analysis were expressed as a proportion of the essay length (in terms of mean percent words in the texts, and mean percent of sentences in the text as mentioned in the study) it is felt unnecessary to include the results.

4. Hypotheses in Reporting the General Characteristics of the Texts (Chapter Eight), the Contribution of Cohesion to Coherence (Chapter Ten) and the Student Interviews (Chapter Eleven)

In reporting the results of the general characteristics of the texts be it in reporting scores (holistic or analytic), general characteristics of frequency of words, sentences and paragraphs or lexical cohesive analytic information as well as the contribution of cohesion to coherence and the student interviews, the purpose is descriptive and thus explicit hypotheses are not included. Although data obtained from the foregoing are not part of the central research questions, the statistical tests applied on the data are given. The tables of results indicate the means of the data, but it was found unnecessary to include standard deviation figures when reporting results using non-parametric tests unless otherwise indicated.

5. Hypotheses in Reporting the Main Results (The Focus of the Study) in Chapter Nine

Since there were no prior expectations about which direction the outcome of the results would be in the present study, null hypotheses were generated for the central research questions and two-tailed significance testing was carried out with a probability level of $p < .05$ as being significant. Alternative hypotheses were not explicitly included and should be assumed. This was done so as not to include any pre-hypothesization of the direction of a

statistical effect. The tables of results indicate the means and standard deviations to give a more complete view of the variables.

The following are some considerations in formulating hypotheses:

" In any study, there should be at least one null hypothesis
and one alternative hypothesis for each pair or set of
variables being studied." (Brown, 1988, p.111)

"(...it is possible to test an alternative hypothesis when there are
strong theoretical reasons to do so or when previous'research
has already allowed researchers to reject the null hypothesis.
However, in our field [applied linguistics] where replication
studies are few and far between, it is more customary to test
the null hypothesis.)" (Hatch, 1991, p.24)

Each hypothesis for the central research questions will deal with the variables mentioned in Diagnostic 1, Diagnostic 2 and between Diagnostic 1 and Diagnostic 2 texts unless otherwise specified.

The interpretation of the statistical test results concerning data compared in Diagnostic 1 to the data in Diagnostic 2 as in a pre-post test situation is given in the present research as exploratory and designed to pave the way for a different research design involving setting up of control and experimental groups with more rigorous and different types of statistical testing procedures. The results, therefore, should be viewed with caution and in some cases, as is mentioned, Diagnostic 1 and Diagnostic 2 are viewed as two separate writing samples (although the researcher does acknowledge that the interim of time between the two of three months is somewhat long to consider the two samples as two 'goes' at the same assignment) (see Chapter Seven). The results, therefore, are only preliminary from which no generalizations or causal claims can be made with any degree of confidence and will be viewed as such. It is hoped that future research at LAU will develop this area.

6. Research Questions

There are four main research questions in the present study. Each research question is general in its focus in that it covers a number of variables. Each research question, however, is followed by a more detailed account of how it will be viewed operationally in the statistical analysis and interpretations of results (see Chapter Six).

The General Description of the Texts in this chapter are given below in three main parts: 1) the holistic and analytic *scores* of the texts and 2) the general features of the texts related to *text length* and 3) the general descriptions of the *lexical cohesion* analysis related to some basic data related to the frequency of cells, links and bonds in the texts. The part of Figure 8.1

indicating these general descriptions is given below for easy reference and referred to as Figure 8.2.

Figure 8.2   Overview of General Description of Texts
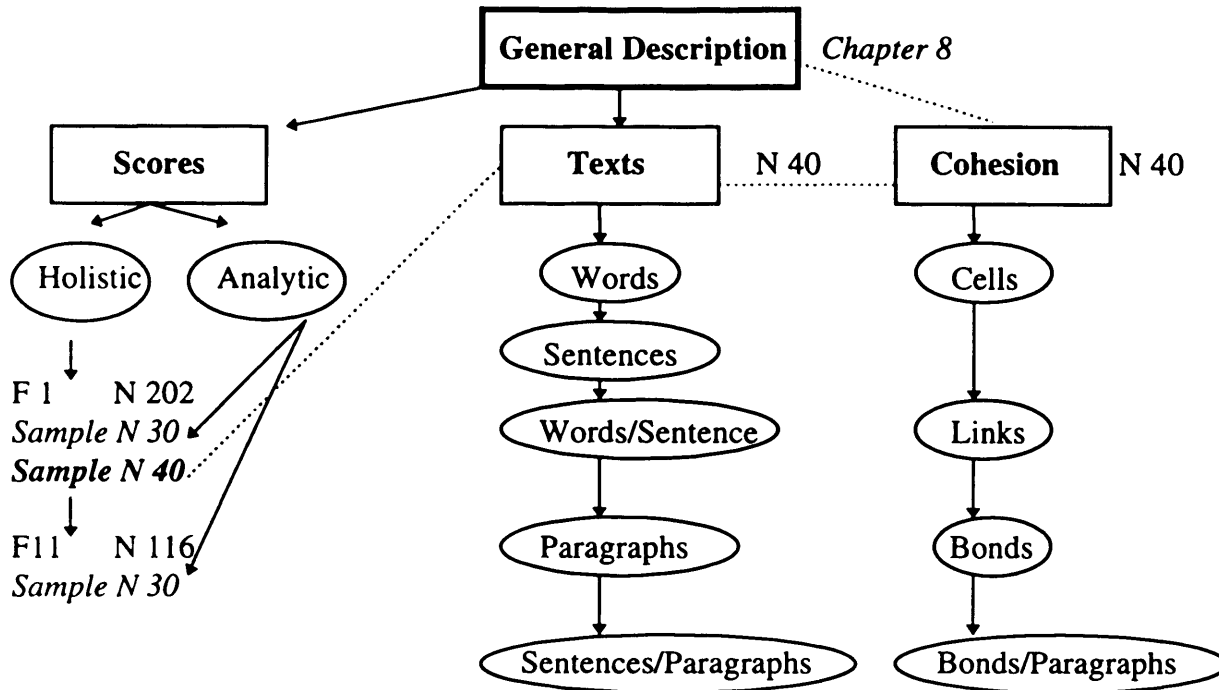
II. The Holistic and Analytic Evaluation of the Texts

The first part of the general description of the texts describes the scores obtained in two parts: 1) the holistic scores and the 2) the analytic scores. The relevant reliability and validity studies will be discussed as they pertain to each. Figures are given for both the FI and FII populations by text levels (FI-N=202 and FII-N=116) and the samples (FI-N=30; N=40; FII N=30). The results for the N=30 sample is not given according to any independent variables, and the results for the N=40 sample (the focus of the present study) is given according to text level and students' study language (English or French). The texts were evaluated using LOC unless otherwise indicated.

A.   Holistic Scores of Freshman I and Freshman II in D1 and D2 Texts

1. The Population

The results in Table 8.1 indicate that the mean percent of the holistic D1 and D2 scores of the Freshman I course improved by only a mean percent of 2.9 on Diagnostic 2 texts keeping the general grade point average a D according to the university's grading criteria, while there was a mean percent improvement in the Freshman II scores of 5.7 bringing the general grade point average up from a D to a C. Although no causal claims can be made for the small

increase in scores in the Freshman I course and the higher increase in the Freshman II at this stage, it does seem that student improvement in the Freshman I course is minimal by university standards if the GPA of C is considered average work. This minimal improvement is also representative of the past ten years' progress for the writing component of the Freshman I course at LAU, Byblos.

Table 8.1 Mean Percent Holistic Scores of F I & II Population on D1 & D2 Texts

Population	Mean	Std.Dev
Diagnostic 1		
English I N=202	65.83	8.89
English II N=116	64.78	6.83
Diagnostic 2		
English I N=202	68.74	7.80
English II N=116	70.45	6.24
Improvement D1 to D2		
FI	2.91	
FII	5.67	

Considering the English courses as a whole, in the following academic year 1994-95 when the Admissions Office at the University compiled the first annual set of *Academic Statistics*, results showed that out of 2,354 students who took the Freshman I course at the three campuses, 498 (21.3%) scored a final grade of D or F in the course; out of 2,133 students who took Freshman II, 477 (22.4%) scored a final grade of D or F in the course (pp.67-68). These figures, however, present the grades for the courses as a whole which also include a reading component considered by both students and faculty as 'easier' than the writing part and which tends to raise the final grades. Up to the present, students still show a relative weakness in the writing component of the courses. It should also be borne in mind that by their very nature these courses have a student intake who, by definition, do not have high scores in English (otherwise they would be exempt from these particular courses). Thus, in a sense, the more able students - for English - do not take these courses in the first place: this might, to an extent, explain a low average grade since there is likely to be a relative absence of the highest grades.

a. Comparison of FI and FII D1 and D2 Holistic Scores

Although no statistical testing is necessary on a population to check for significant differences, if the 202 texts are considered a sample of each year's performance then Table 8.2 indicates a very high positive significant increase in scores (p=.000) using the t-test on Diagnostic 2 texts in both English I and English II courses.

Although these results indicate that the evaluation criteria used in the department (LOC) had *construct validity* in that progress did occur in the holistic scores, these are not very comforting findings especially since the mean percent in the FI D2 population scores remained a D average which is considered unsatisfactory performance at the university.

Table 8.2   Significant Differences between D1 and D2 in Population Holistic Scores in F1 and F1I Using the T-Test for Paired Samples

Population	t-value	2 Tail P.
English I N=202	5.60	.000*
English II N=116	11.08	.000*

N = Number of pairs

b. Comparison of FI D2 Scores and Final Exam Essay Scores by Rhetorical Mode

The results in Tables 8.3 and 8.4 indicate that when the FI holistic scores of D2 and the Final Exam Essay scores (written a few weeks apart) were compared on different topics in the same rhetorical mode (cause-effect) or in a different rhetorical mode (comparison-contrast) there were no significant differences in mean percent scores using the t-test for paired samples. This suggests that the students performed the same on two essays and that topic and rhetorical mode did not significantly affect the students' performance.

Table 8.3   Mean Percent of FI D2 Final Exam Essay Holistic Scores in Population by Rhetorical Mode Using the T-Test for Paired Samples

	N	Mean	St. Dev.
Final Exam Essay-Comp/Contrast	97	68.4381	7.387
Diagnostic 2- Cause/Effect	97	67.9588	8.103
Final Exam Essay-Cause-Effect	105	67.6762	8.291
Diagnostic 2-Cause-Effect	105	68.2638	7.760

N = Number of pairs

Table 8.4   Significant Differences between FID2 and Final Exam Essay Population Holistic Scores by Rhetorical Mode Using the T-Test for Paired Samples

	N	t-value	2 Tail P.
FE-Comp.Cont. with Diag.2-CE	97	-.65	.518
FE-Cause-Effect with Diag.2-CE	105	.84	.403

N=Number of pairs   FE=Final Exam Essay   CE=Cause-Effect Mode

2. The Sample (FI - N=40)

The results in Table 8.5 indicate the mean percent holistic ratings on the sample texts randomly selected from the population of N=202 in FI according to HT and LT and study language at the same level.

Table 8.5 Mean Percent of D1 and D2 Holistic Scores in FI Sample (N=40) by Level and Study Language Selected from the FI Population

Texts N=40	N	Mean	St. Dev.
Diagnostic 1			
High	20	79.850	3.689
EHT	11	80.773	3.856
FHT	9	78.722	3.336
Low	20	57.875	4.952
ELT	5	56.400	6.986
FLT	15	58.400	4.235
Total High/Low	**40**	**68.863**	**11.914**
Diagnostic 2			
High*	20	76.850	5.779
EHT	11	79.136	5.783
FHT	9	74.056	4.640
High	14	79.321	4.610
EHT	8	81.375	5.167
FHT	6	76.583	1.463
Mid	15	69.900	3.296
EMT	5	71.400	3.362
FMT	10	69.150	3.163
Low*	20	64.275	5.298
ELT	5	62.700	6.620
FLT	15	64.800	4.938
Low	11	60.273	2.995
ELT	8	58.667	4.010
FLT	3	60.938	2.456
Total High/Low	**40***	**70.563**	**8.418**

* These are the second texts written by the
   same students that wrote the 20 D1 texts and
   represent the scores of the HT and LT
   according to D1 levels

a. By Level - HT/LT - in D1 & D2 Texts

The results in Table 8.5 indicate that the mean percent holistic scores for both HT and LT in D1 and D2 were a little higher than in the population. This is due to the fact that to have an equal number of HT with that of the LT for the cohesive analysis a higher proportion of high texts had to be selected. However, the increase of a mean percent of 1.7 on D2 LT and HT

computed together is not very high and the LT although improving by a mean percent of 6.4, remained a low D on D2. These results in general represent those of the population.

The results in Table 8.6 indicate that the decrease in mean ranks in HT on D2 was significant and the increase in LT on D2 was highly signficant (p=<.01) but the increase on D2 when the sample was taken as a whole was not significant using the Mann-Whitney Test. These results confirm those of the lexical cohesive analysis obtained (see Chapter Nine). Even though results obtained when scores between D1 and D2 are compared should be viewed with caution, it does seem that the quantitative scoring validates the qualitative cohesive analysis results and vice versa.

**Table 8.6   Significant Differences between D1 and D2 Sample (N=40)
Holistic Scores in FI Using the Wilcoxon Matched-Pairs
Signed-Ranks Test**

	N	Z	2 Tail P.
Total Sample - High and Low	40	-1.1892	.2344
High	20	-2.6761	.0074*
Low	20	-3.6218	.0003*

N = Number of pairs

b. By Study Language at the same level in D1 & D2 texts

The results in Table 8.5 also indicate the mean percent holistic scores of the texts by the students' study language at high school (English or French) and Table 8.7 any significant differences between high rated texts written by English or French educated students (hereafter referred to as *English High Texts - EHT - or French High Texts - FHT*) and low rated texts written by English or French educated students (hereafter referred to as *English Low Texts - ELT or French Low Texts - FLT*).

The results summarized in Tables 8.6 and 8.7 indicate the following:

- In the **D1 texts**, although the EHT and the FLT had the higher mean percent scores, the differences were not significant between study languages at both levels.

- In the **D2 texts**, the EHT had a significant higher mean percent score of 81.4% than the FHT which had a mean percent score of 76.6 which indicated a high significant difference (p=.008) when the Mann Whitney test was applied. There was no significant difference between the ELT and the FLT although the latter had a higher mean score of 2%. It seems that at the lower proficiency level, the French educated students perform slightly better than the English but not significantly.

Table 8.7 **Significant Differences in D1 and D2 and between D1 & D2 Sample (N=40) Holistic Scores in FI by Study Language at the Same Level Using the Mann Whitney Test and Wilcoxon Matched-Pairs Test Respectively**

Texts	N	Z	2Tail P.
Diagnostic 1			
EHT with FHT	11 - 9	-1.2979	.1943
ELT with FLT	5 - 15	- .5693	.5692
Diagnostic 2			
EHT with FHT	8 - 6	-2.6642	.0077*
EMT with FMT	5 - 10	-1.2336	.2174
ELT with FLT	3 - 8	- .9493	.3425
D1 with D2			
High			
EHT with EHT	11 - 11	-1.1558	.2477
FHT with FHT	9 - 9	-2.3105	.0209*
Low			
ELT with ELT	5 - 5	-2.0226	.0431*
FLT with FLT	15 - 15	-3.0760	.0021*

c. By Study Language at the same level between D1 & D2

- Both the EHT and FHT showed lower mean percent scores in D2, the latter only indicating a high significant difference (p=.0209).

- Both ELT and FLT showed higher mean percent scores in D2, the former indicating a significant difference between the D1 & D2 scores (p=.0431), and the latter a high significant difference (p=.0021). It is interesting to note that the French educated students at the low proficiency level performed better in general in D2 texts when compared to that in D1 texts.

The findings in the sample are comparable to those of the population in that improvement on the whole is minimal; they seem to reinforce the results obtained in the Cohesion Analysis.

B. Tests for Reliability of Holistic Scores - Population

The results in Table 8.8 indicate that there is a very high significant positive relation between the two readers' scores (p=.000) in both D1 and D2 texts in both FI and II using the Pearson Correlation Coefficient Statistical Test. That is, readers were in high agreement as to the texts' levels (inter-rater reliability). A coefficient of .8 and above is considered acceptable in showing a strong relation between scores in such holistic ratings (Jacobs, 1981).

Furthermore, the results in Table 8.9 indicate that when a random sample of texts (N=38) chosen from the D1 texts of the FI population (N=202) was re-evaluated by the same readers, there was also a very high significant positive relation (p=.000) between the scores of the first and second readings using the Pearson Correlation Coefficient Statistical Test. That is, raters

were in high agreement with their own readings of the same texts on two occasions (intra-rater reliability).

Table 8.8   Inter-Rater Reliability between R1 and R2 on Holistic Population Scores in D1 & 2 in FI and II Using the Pearson Correlation Coefficient Test

Texts	N	r	p
Diagnostic 1			
Freshman I	202	.9177	.000*
Freshman II	116	.7332	.000*
Diagnostic 2			
Freshman I	202	.8936	.000*
Freshman II	116	.8125	.000*

Table 8.9   Intra-Rater Reliability of R1 and R2 Holistic Sample (N=38) Scores in D1 F1 Using the Pearson Correlation Coefficient Test

Sample taken from N=202

Texts N=38	r	p
Diagnostic 1		
Freshman I	.8609	.000*

This finding confirmed that the scores were reliable indicators of the proficiency level of the texts, a necessary pre-step to the selection of the N=40 sample the first pair of which was chosen from the D1 texts.

C. Testing for Reliability of Holistic Scores - Sample

A sample of 120 texts was chosen at random from the FI and FII populations to preliminarily test LOC's reliability as an instrument used in holistically scoring essays. 60 texts were randomly chosen from F1 population (D1=30;D2=30) and 60 texts were randomly selected from FII population (D1=30; D2=30). This sample is independent of the sample chosen for the cohesive analysis. These texts were re-evaluated using Jacobs' criteria by two raters (R3 and R4) according to Jacobs' (1981) criteria.

The results in Table 8.10 indicate that there is a very high significant positive relation (p=.000) between the first set of readers (R1&2) using LOC and the second set (R3&4) of scores when each set separately rated the 60 Freshman I diagnostic texts and the 60 Freshman II diagnostic texts (a total of 120 texts) selected from the Freshman I population (N=202) and Freshman II population (N=116) respectively using the Spearman Correlation Coefficient Test. That is, raters were in high agreement as to the texts' levels (inter-rater reliability).

Table 8.10 Inter-Rater Reliability between R1&2 Holistic Scores (using LOC) and R3&4 Holistic Scores (using Jacobs' criteria) in D1 & D2 in FI & FII Sample Using the Spearman Correlation Coefficient Test

Texts	N	ρ	p
Readers 1&2 (LOC)			
Diagnostic 1			
Freshman I	30	.9302	.000*
Freshman II	30	.6262	.000*
Diagnostic 2 (LOC)			
Freshman I	30	.8479	.000*
Freshman II	30	.8623	.000*
Readers 3&4			
Diagnostic 1 (Jacobs)			
Freshman I	30	.6196	.000*
Freshman II	30	.5964	.001*
Diagnostic 2 (Jacobs)			
Freshman I	30	.7150	.000*
Freshman II	30	.6521	.000*

R1 & 2 - The first set of raters; their scores are part of the populations' scores using LOC criteria

R3 & 4 - The second set of raters; their scores are those of the sample's using Jacobs' (1981) criteria

Furthermore, the results in Table 8.11 indicate that when a random sample of 20 texts selected from the N=120 sample was re-evaluated by the R3 & 4 (10 texts each), there was also a high significant positive relation (p<.01) between the first and second ratings using the Spearman Correlation Coefficient Test (p<.0l) except for R4 in Freshman II texts which was fairly signficant (p=.06). That is, raters were in high agreement with their own readings of the same texts on two occasions (intra-rater reliability).

Table 8.11 Intra-Rater Reliability of R3 and R4 Holistic Sample Scores in D1 & D2 in FI and FII Re-Rating Scores Using the Spearman Correlation Coefficient Test

Texts	ρ	p
R3		
Freshman I (N=10)	.7285	.017*
Freshman II (N=10	.8698	.001*
R4		
Freshman I (N=10)	.8563	.002*
Freshman II (N=10)	.6122	.060*

D. Tests for Validity of LOC

In order to test whether the D1 and D2 texts were valid indicators of the students' writing proficiency level, correlations were carried out on the same students' scores 1) between scores obtained using LOC and those using Jacobs' criteria, 2) between the D1 text scores and the same students' English entrance score (EEE) administered by the university obtained at the beginning of the semester and 3) between the D2 text scores with the same students' written products on the final exam as well as the final exam total grade and their semester Grade Point Averages (GPA) obtained at the end of the semester.

1. Concurrent Validity Test between LOC and Jacobs' Criteria

The results in Table 8.12 indicate that there is a high significant positive relation ($p=<.01$) between the mean of R1 & R2's scores of the first reading and the mean of R3 & R4's of the second reading of the 60 Freshman I diagnostic texts and the 60 Freshman II diagnostic texts (a total of 120 texts) selected from the Freshman I population (N=202) and Freshman II population (N=116) respectively using the Spearman Correlation Coefficient Test. That is, the first set of raters' scores, according to the LAU, Byblos' EFL Writing Evaluation Criteria (LOC) and the second set of raters' scores, according to Jacobs' ESL Compostion Profile, were in positive agreement as to the texts' levels. Jacobs et. al. (1981) consider a validity coefficient of .6 and above as indicating a good positive correlation between scores.

This was a very significant finding since it afforded confidence to the selection of high and low texts according to LAU, Byblos' EFL Writing Evaluation Criteria. The slightly low validity coefficient of .5 obtained in the Freshman II course in D2 might have been due to more emphasis being placed on the Freshman I sample in practise evaluation sessions and thus need not be of direct concern in this study.

Table 8.12   **Inter-Rater Reliability between First Ratings (R1&2) and Second Ratings (R3&4) on Holistic Scores in D1 & D2 in FI and FII Using the Spearman Correlation Coefficient**

Texts	N	ρ	p
Diagnostic 1			
Freshman I	30	.6966	.000*
Freshman II	30	.4793	.007*
Diagnostic 2			
Freshman I	30	.7238	.000*
Freshman II	30	.6771	.000*

R1&2 = The first set of two readers (raters)
R3&4 = The second set of two readers (raters)

2. Concurrent Validity Test between FI D1 Texts and English Entrance Exams

Since this was the students' first semester in the university, the only available student scores to correlate with the D1 text scores on entrance were the scores on the LAU's EEE or those equivalent scores on the TOEFL.

The results indicated that there was a very highly significant positive relation between the scores in the FI D1 N=202 population (r=.2776; p=.000) using the Pearson Correlation Coefficient Test and in the FI D1 N=40 sample (ρ=.4499; p=.004) using the Spearman Correlation Coefficient Test. Although the validity coefficients in both cases were not very high, the results for purposes of this study were sufficient especially since the EEE is an objective type exam.

3. Concurrent Validity Test between FI D2 Texts and Final Exam Essay Texts

The results indicated that there were very high significant positive relations between the Freshman I D2 text scores and the Final Exam Essay text scores on a different topic in the population (r=.8673; p=.000) using the Pearson Correlation Coefficient Test and in the sample (N=40) (ρ =.6765; p=.000) using the Spearman Correlation Coefficient Test.

4. Concurrent Validity Test between FI D2 Texts and Final Exam Essay Texts According to Rhetorical Mode

The results in Tables 8.13 and 8.14 indicate that there is a very high significant positive relation (p = <.01) between the holistic FI D2 text scores and the final exam essay text scores when D2 was correlated with the Final Exam Texts on different topics according to 1) a different rhetorical mode - comparison-contrast and 2) in the same rhetorical mode - cause-effect in both the population and sample (N=40) (used for the lexical cohesive analysis) using the Pearson and Spearman Correlation Coefficient Tests respectively.

Table 8.13   Relation between F I Holistic D2 and Final Essay Exam Population
Text Scores According to Rhetorical Mode Using the Pearson
Correlation Coefficient Statistical Test

Population N=202	N	r	p
1. D2 with FE-Comp/Contrast	97	.5628	.000*
2. D2 with FE-Cause-Effect	105	.6231	.000*

FE = Final Exam Essay

Table 8.14   Relation between FI Holistic D2 and Final Essay Exam Sample
Text Scores According to Rhetorical Mode Using the Spearman
Correlation Coefficient Statistical Test

Sample 4 N=40	N	ρ	p
1. D2 with FE-Comp/Contrast	18	.5800	.000*
2. D2 with FE-Cause-Effect	22	.5868	.000*

The findings indicate that the D2 text levels at the end of the semester are valid indicators of the students' writing proficiency levels. Research indicates that one needs more than one product to finally determine the proficiency level of a students' written work. The final exam products were the only ones that were written under similar conditions and approximate time as the D2 texts and were available to the researcher.

5. Concurrent Validity Test between FI D2 Texts and Final Course Grade

The results indicated that there were very high significant positive relations between the Freshman I D2 text scores and the same students' final course grades in both the population (r=.6880; p=.000) and sample (N=40) (ρ=.6152; p=.000) using the Pearson and Spearman Correlation Coefficient Tests respectively.

6. Concurrent Validity Test between FI & FII D2 Holistic and Analytic Scores and Semester General Grade Point Average Grades (GPA)

Although the analytic score results will be discussed in Section III, they will be mentioned here only as they relate to the GPA. The validity related to the GPA will be discussed in the FI & FII N=30 sample. The results in Table 8.15 indicate that there are high significant positive correlations (p=<.01) between FI D2 holistic and analytic scores (as a whole and separately) and students' term GPA using the Spearman Correlation Coefficient Test. There are no relations between FII D2 holistic and analytic scores and GPA.

Table 8.15 Relation between Semester General Point Average (GPA) and Holistic and Analytic Sample Scores in D1 & 2 Texts in F I & II Using the Spearman Correlation Coefficient

Sample N=30	Diagnostic 1		Diagnostic 2	
	ρ	p	ρ	p
English I *	.2952	.113	.5287	.003*
English I **	.1806	.340	.5390	.002*
Content	.1315	.489	.5307	.003*
Organization	.2430	.196	.4887	.006*
Vocabulary	.1372	.470	.5529	.002*
Language	.0433	.820	.4875	.006*
Mechanics	.3302	.075	.4940	.000*
English II *	.1275	.502	.1095	.565
English II **	.1347	.478	.1031	.588
Content	.2507	.181	.1242	.513
Organization	.1878	.320	.2324	.217
Vocabulary	.0782	.681	.0757	.691
Language	- .0001	.000*	.0472	.804
Mechanics	.0155	.935	.2628	.161

Holistic Scores
* The mean of the two raters' (R3&4) holistic scores correlated with the GPA
Analytic Scores
** The mean of the two raters' (R3&4) analytic scores (the mean of each of the raters' part scores was computed first)

The fact that there is no significant correlation between the FII D2 scores and the GPA's may be due to the disciplines not penalizing the students' for weak language skills to the degree that the English program does. Research on writing across the curriculum (WAC) has also confirmed this (See Chapter Three). However, the significant relation found in the FI scores also confirmed the validity of the FI D2 scores at the end of the semester.

It is worthwhile here to report the finding of the university that both English and French educated students had similar cumulative GPAs in the academic year 1995-96: English educated N=2165, mean GPA=2.44; French educated N=1190, mean GPA = 2.49). However, at the Byblos Branch where the present research was carried out, there were more French educated students (50.4%) than English educated (47.2%) with 667 French educated having a mean GPA of 2.55 and the 625 English educated having a mean GPA of 2.54. The 22 Arabic educated (1.7%) obtained a mean GPA of 2.57 (which is not indicative of their performance as the larger sample of 107 in the Beirut Branch had a mean GPA of 2.13) and 10 other educated (less than 1% mainly from abroad) obtained a mean GPA of 2.74 which was the highest out of all the groups. The report concludes that 'This reflects the consistency in Admissions criteria for all applicants to LAU.' (LAU Academic Statistics, 1995, p. 41-42) which the evaluation and cohesive analyis study language results confirm (see Section IV. and V later, Chapters Nine and Ten).

7. Construct Validity (see Section II.A.)

8. Predictive Validity between FI D1 and D2 in Population (N=202) and Sample (N=40)

The results indicated that there was a very high significant relation between the FI DI and FI D2 population text scores (r=.7383; p=.000) using the Pearson Correlation Coefficient Test. There was also a similar result in the sample (ρ =.7421; p=.000) using the Spearman Correlation Coefficient.

9. Predictive Validity between FI D1 and Final Exam Essay scores in Population (N=202) and Sample (N=40)

The results indicated that there was a very high significant relation between the FI DI and FI Final Exam Essay scores in the population (r=.6828; p=.000) using the Pearson Correlation Coefficient Test. There was also a similar result in the sample (ρ =.6319; p=.000) using the Spearman Correlation Coefficient.

10. Predictive Validity between FI D1 and Final Course Grades in Population (N=202) and Sample (N=40)

The results indicated that there was a very high significant relation between the FI DI and FI Final Exam scores (which included both a writing and reading comprehension component) in the population (r=.5999; p=.000) using the Pearson Correlation Coefficient Test. There was also a similar result in the sample (ρ =.5575; p=.000) using the Spearman Correlation Coefficient.

11. Predictive Validity between FI and FII D1 Holistic and Analytic Scores and GPA in Sample (N=30)

The results in Table 8.15 indicate that there were no significant relations between FI and FII D1 holistic and analytic scores (when computed as a whole and separately) and GPA except for a highly significant relation (p=.000) with the language component in FII texts. The D1 texts in both FI and FII did not predict the performance of students in other courses in their major at the end of the semester. This confirms some research in the field (Light et.al., 1987; Richerson, 1992; Holdaway, 1973, Jones et.al., 1964 in Jacobs et. al., 1981, p.76) that provides evidence "...that scores on English proficiency are not generally highly related to or predictive of academic grades' (ibid., p.76) as there are other academic and student psychological intervening variables that affect the relation. However, this needs further researching in the LAU context.

E. Discussion of Holistic Score Results

1. Although there were significant mean percent score increases in FI and FII D2 texts when the population was considered, the FID2 texts remained a D average. When the FI sample (N=40) was considered, the FLT showed the highest significant increase in D2 when the level and study language were considered with the HT showing a lower mean percent in D2 texts.

If large scale holistic assessment is used solely to evaluate the performance of the students and the effectiveness of the writing program (if a true experimental design was used), the foregoing results may have been quite disappointing. The holistic scoring reveals little about the performance of the students in the different components of the writing skill (White, 1994; Hamp-Lyons, 1995). White (1994) warns against holistic scoring alone for program evaluation:

> "Thus, we cannot use holistic scoring very effectively in the area of program
> evaluation. We must recognize and allow others to recognize that writing is
> all the aspects of learning and expression...and more. That is, for program
> evaluation purposes, we need to develop new theories about the meaning of
> writing-theories that define writing more inclusively than our holistic scoring
> guides...For example, a simple pretest/posttest evaluation design, even using

sophsticated question development and careful holistic scoring, normally
yields no gain scores for groups across an academic year." (p.266)

However, the purpose of the holistic scoring was not to evaluate the course nor to check for writing development, but to reliably distinguish between the HT and LT before a deeper analysis of the texts could be carried out. In fact, the cohesion analysis carried out significantly showed that the D1 and D2 HT (see Chapter Nine) had certain features and patterns that were not found in the LT and which neither the holistic or analytic scores indicated. A positive contribution, however, from the holistic score results is that they reinforce the lexical cohesion results in that the LT texts showed more improvement than the HT in quantitative terms in D2 and in this sense validate the qualitative analysis and vice versa. But for details on exactly what improved or what exactly made the HT better writing in D1 and D2 the in depth cohesive analysis was much more enlightening (see Chapter Nine).

2. There were also no significant differences between texts when the D2 texts were correlated with the final texts on a different topic but the same rhetorical mode nor significant differences between texts on a different topic and a different rhetorical mode. This seems to suggest that students perform the same across different topics and different genres. Some research has indicated, however, that students' performances vary across topics and genres (Reid, 1993; Hamp-Lyons, 1991a; Kroll, 1990a; Jacobs, 1981) and that to obtain a truer writing performance level of a student more than one product is necessary as above. However, more research in this domain needs to be carried out at LAU and with more samples on different topics and different rhetorical modes with more indepth analysis evaluation of the essays other than holistic before any conclusions can be drawn. For purposes of this study, however, this finding suggests that the performance of the students on the D2 text is a valid indicator of the students' writing proficiency level.

3. The high significant positive inter and intra correlations 1) between ratings in the population texts and the sample texts, and 2) between ratings using LOC and Jacobs' criteria in the sample texts confirms the validity of the scores. It is specifically significant for the present study that the high and low texts chosen from the D1 FI population could be considered reliable which is a necessary pre-requisite for any objective findings in the correlational and comparative lexical cohesion analysis.

III. Analytic Evaluation of the Texts - Sample

It was interesting to compare and correlate the scores in the components of the writing skills: *content, organization, vocabulary, language and mechanics* since in the research

literature there is a controversy that students do not necessarily perform the same in each component (Kroll, 1990a) and to see which of the components needed relative attention. Since the analytic scoring scale used in the program (LOC) in the pilot study did not allow for a wide spread of scores, the Jacobs' ESL Composition Profile which allows for analytic scoring was used (see Appendix D). The evaluation was carried out on the N=120 sample.

A. Comparison of Analytic Scores between D1 and D2 in FI and FII Texts

The results in Table 8.16 indicate the mean scores of each of the five writing components and the mean score of all the five components expresssed as a percentage in D1 and D2 texts in FI and FII. The results in D2 indicate very little increase in scores in general. The mean vocabulary score decreased in D2 in both courses.

Table 8.16   Mean Percent Analytic Scores* of D1 and D2 FI and FII

Sample N=120	Diagnostic 1 (N=30)		Diagnostic 2 (N=30)	
	Mean	St. Dev.	Mean	St. Dev.
English I N=60+	66.600	8.617	67.467	8.953
Content	20.967	2.449	21.050	2.339
Organization	13.083	1.712	13.650	1.687
Vocabulary	16.033	2.609	13.467	1.814
Language	13.250	1.841	15.900	3.094
Mechanics	3.267	.612	3.400	.607
English II N=60+	65.833	9.530	65.567	7.480
Content	20.567	2.999	19.917	2.316
Organization	13.050	1.743	13.233	1.344
Vocabulary	15.650	2.886	13.217	1.400
Language	13.333	1.830	15.950	2.513
Mechanics	3.267	.504	3.250	.487

* The analytic scores were divided as follows:
Content   30%
Organization 20%
Vocabulary   20%
Language   25%
Mechanics   5%
+ 30 pairs: The five components computed together as a percentage
                   (Content, Organization, Language, Vocabulary, Mechanics)

The results in Table 8.17 indicate that there were no significant differences between the mean analytic scores when computed separately or together and expressed as a mean percent between D1 and D2 in both English courses using the Wilcoxon Matched-Pairs Signed-Ranks Test.

Table 8.17 Significant Differences between D1 and D2 Sample Mean Analytic Scores in FI and FII Using the Wilcoxon Matched-Pairs Signed-Ranks Test

Sample = 120	Z	2 Tail P.
English I N=60*	- .1748	.8612
Content	-.1524	.8789
Organization	-1.6120	.1070
Language	- .6861	.4926
Vocabulary	- .2505	.8022
Mechanics	-1.1760	.2396
English II N=60*	-. 3302	.7413
Content	-1.3454	.1785
Organization	- .3954	.6926
Language	- .4709	.6377
Vocabulary	- .6160	.5379
Mechanics	- .1704	.8647

N = 30 pairs

* = **Significant differences between the mean percent of the 5 components as a whole**

In order to obtain a better view of the analytic scores each component was expressed as a percentage. The results in Table 8.18 indicate that language had the lowest mean percent in D1 and D2 texts and, in fact, decreased in D2 by approximately one mean percent.

Table 8.18 Mean Percent of D1 and D2 Analytic Sample Scores in FI

Sample N=60*	Diagnostic 1(N=30)		Diagnostic 2 (N=30)	
	Mean	**St. Dev.**	**Mean**	**St. Dev.**
Content	69.720	8.321	70.334	7.736
Organization	65.667	8.431	68.250	8.437
Vocabulary	66.083	9.090	67.333	9.072
Language	64.133	10.438	63.200	12.018
Mechanics	65.333	12.243	68.000	12.149

*N = 30 pairs

The results in Table 8.19 indicate that there were no significant differences when the components were expressed as percentages between FI D1 and D2 using the Wilcoxon Matched-Pairs Signed-Ranks Test confirming the results in Table 8.17.

Table 8.19 **Significant Differences between D1 and D2 Mean Percent Analytic Sample Scores in FI Using the Wilcoxon Matched-Pairs Signed-Ranks Test**

Sample N=60	Z	2 Tail P.
Content	- .520	.6026
Organization	-1.4903	.1361
Vocabulary	-.7714	.4405
Language	-.4445	.6567
Mechanics	-1.1760	.2396

N = 30 pairs

C. Comparison among Writing Components in FI D1 and D2 Analytic Scores

The results in Table 8.20 indicate that when the mean percent analytic component scores were compared in the Freshman English I D1 and D2 texts, there were high significant differences (p=.0002; p=.0000 respectively) using the Friedman Two-Way Anova. That is, students performed significantly differently from best to least as follows:

Diagnostic 1 - Content, Vocabulary, Organization, Mechanics, Language
Diagnostic 2 - Content, Organization, Mechanics, Vocabulary, Language

It seems that performance is the lowest in the language component, content the best, organization and mechanics remaining almost the same and vocabulary becoming poorer. This is quite significant as they reinforce the results obtained in the cohesive analysis in that the use of a variety and sophisticated type of vocabulary is a problem for the students at both levels and especially to those who wrote the LT (see Chapter Nine).

Table 8.20 **Significant Differences in D1 and D2 Mean Percent Analytic Sample Scores in FI Using the Friedman Two-Way Anova**

Sample = N=60*	df	Chi-Sq.	2 Tail P.
Diagnostic 1	4	21.727	.0002*
Diagnostic 2	4	30.280	.0000*

* N = 30 pairs

This finding also reinforces the interview comments of the students in which they stressed their relative problems in these two components compared to the others (see Chapter Eleven). There is definitely a need for more emphasis on teaching/learning vocabulary.

D. Inter-rater Reliability between Raters' Analytic Scores

The results in Table 8.21 indicate that there were high significant positive relations between the two raters' scores in both Freshman I and II D1 and D2 texts (p=<.05) using the Spearman Correlation Coefficient Test, except for the organization component in Freshman II D2 texts.

A possible explanation is that it might be that teachers are not as sure of what constitutes the organization component as they are of the others, since this component is not as obvious in the text as the other components that appear 'on the surface' so to speak. To evaluate organization, one must look at the whole discourse and the interrelations of the patterns over text which is not as easy a task as is thought to be. The raters on the whole, however, agree on the students' writing scores when broken into the components.

Table 8.21 Inter-rater Reliability between Raters' D1 & D2 Analytic Scores in FI and FII Using the Spearman Correlation Coefficient

Sample N= 120	Diagnostic 1 (N=60)		Diagnostic 2 (N=60)	
	ρ	p	ρ	p
English I N=30*				
Content	.6848	.000*	.5332	.002*
Organization	.3807	.038*	.3590	.051*
Vocabulary	.6289	.000*	.5776	.001*
Language	.5001	.005*	.6309	.000*
Mechanics	.5614	.001*	.4671	.009*
English II N=30*				
Content	.6925	.000*	.5705	.001*
Organization	.6764	.000*	.1947	.303
Vocabulary	.5279	.003*	.3909	.033*
Language	.5708	.001*	.4968	.005*
Mechanics	.3931	.038*	.6380	.000*

* N=Number of Pairs

D. Reliability Among the Analytic Components in FI D1

The results in Tables 8.22 and 8.23 indicate very high significant positive relations (p=.000) among the different components of the writing skill in FI D1 when expressed as percentages using the Spearman Correlation Coefficient Test. The highest significant coefficient in D1 and D2 was between the vocabulary and organization components. This might be an indicator that when the raters' evaluate texts they see a link between these two components. All in all, however, the results indicate that the components are interrelated receiving similar ratings confirming that the scores have internal reliability or consistency (Jacobs, 1981).

Table 8.22 Inter-rater Reliability among Analytic Mean Percent Scores in FI D1 Using the Spearman Correlation Coefficient

Organization	.8774			
Vocabulary	.8962	.9587		
Language	.7945	.8149	.8679	
Mechanics	.6871	.7607	.7712	.7751
	Content	Organiz.	Vocab.	Language

p = .000 in all cases   N= 30 pairs

Table 8.23   Relation among Analytic Percent Scores in D2 in Freshman I English Course Using the Spearman Correlation Coefficient

Organization	.8716			
Vocabulary	.8560	.9042		
Language	.8638	.8991	.9259	
Mechanics	.9151	.7813	.7992	.8137
	Content	Organiz.	Vocab.	Language

p = .000 in all cases   N= 30

E. Discussion of Analytic Scores

1. The results showed that when the D1 and D2 analytic scores were compared separately and as a whole there were no significant differences. This is the same result as the holistic score comparisons.

2. The results further showed that when the analytic scores were compared with each other in D1 and then in D2, there were high significant differences among the different writing components. That is, students perform significantly differently in the various aspects of the writing skill. This finding confirms research in the field (see Chapter Three and Kroll, 1990a) that students perform differently in the various writing components and confirms the argument above that programs should not rely entirely on holistic scores to determine the improvement of their students' writing proficiency. The fact that the language component had the lowest score and that this had decreased in D2 texts also confirms the perceptions of the teachers that the students perform lower in language as identified by the criteria. It would seem, therefore, that there is a need to look deeper into the students' language component to describe what actually is going on. The present research is a contribution in this direction. The fact that the content component is higher indicates that the students had ideas on the topic given, but they found it relatively more difficult to organize and express their ideas. This finding also confirms the teachers' perceptions in the program as well as the interview results (see Chapter Eleven) and again the present study hopes to shed some light in this area.

3. Third, the results showed internal consistency or reliability; there are high significant correlations among the different components of the writing skill, the highest being between vocabulary and organization in D1 and D2. Although based on one small sample, this seems to suggest that lexis and organization are related, which Hoey (1991a) also noted. It is in this area of lexis and organization over text that is the focus of the present study. It is argued that

if students are able to organize their writing better with the use of lexical cohesion, then their texts may be more coherent to the reader.

F. Relation between Holistic and Analytic Scores

The results in Table 8.24 indicate that there were high significant positive relations (p<.001) between the holistic scores and the analytic scores (when the analytic scores were correlated separately and as a whole) in both Freshman I and II D1 and D2 texts using the Spearman Correlation Coefficient Test. The relation between vocabulary and the holistic scores remained consistently the highest in all texts, suggesting that it is of priority in rating.

Table 8.24   Relation between Holistic and Analytic Scores in D1 & D2 in FI and II Using the Spearman Correlation Coefficient

Sample	D1	D2
	ρ	p
English I * N=60	.9331	.9455
Content	.8684	.9335
Organization	.9355	.8864
Vocabulary	.9270	.9075
Language	.8540	.9005
Mechanics	.8240	.8802
English II * N=60	.9475	.9700
Content	.9050	.8867
Organization	.8819	.8634
Vocabulary	.9294	.9103
Language	.8872	.9343
Mechanics	.9133	.8241

p < .001
* The analytic scores computed together
N= 30 pairs

G. Discussion of Relation between Holistic and Analytic Scores

There were high significant relations between the holistic and analytic scores. This again indicates internal consistency or reliability of the scores and that the readers were focusing on each of the components equally when rating the texts and did not emphasize any component over the other as some of the research suggests might happen (see Chapter Three). For example, Shakir (1991) reported findings of research carried out in Jordan high schools where there was a much higher correlation between the grammar score in comparison with other components and the coherence holistic scores. The research concludes that teachers' may have been rating the texts according to more surface features at the sentence level rather than discoursal features over larger stretches of text. Sweedler-Brown (1992) also reported high

significant correlations between sentence features (rather than more rhetorical ones) and holistic scores and recommends that experienced writing instructors need to work with teachers that are not trained in ESL/EFL.

The consistent high significance of the relation between the vocabulary and the general text ratings may suggest that teachers' consider this a very important sub-component of the writing skill. When one thinks of writing a text without words, this finding is not surprising. These results leave strong implications for the teaching/learning of the essay.

H. Summary of Holistic and Analytic Scores

The findings indicate that although there was a significant increase in scores over the semester in the population, the general average remained a D in FI texts. There were no significant increases in scores over the semester in the sample holistic scores and analytic scores, but when analytic scores were compared separately, there were signficant differences. This suggests that a different type of evaluation or a supplement to holistic scoring is needed to assess performance of writing in more depth.

The findings further indicate significant correlations between raters' text scores between D1 and D2 text scores and other measures of students' writing and/or academic performance as well as among the analytic scores and between the analytic and holistic scores. It can be concluded that the D1 and D2 text scores are both reliable and valid for the purposes of this study.

IV. General Characteristics Related to the Length of the Texts

Before the results of the tested hypotheses are given, general characteristics related to the length of texts in the sample (N=40) texts that are used in the cohesive analysis which is the focus of the study are described. Any significant differences will be noted according to level and study language. The Mann-Whitney statistical procedure was used to test for any differences except where another test is indicated.

Research has investigated the relation between text level (holistically rated) and text length according to frequency of T-unit, words, and sentences (see Chapter Five). The purpose was mainly an attempt to equalize the opportunities among students with divergent proficiency levels in producing cohesive devices, transitional words and so forth so that any comparisons and correlations among levels or other variables would produce reliable and valid results. The assumption was that there is a higher frequency of cohesive devices in longer texts than in shorter ones. Results indicated that indeed the higher proficient students produced longer texts in terms of mean T-units, or mean frequency of words or sentences which in turn

affected the study of cohesion. To balance for length, researchers expressed the frequency of cohesive devices as a proportion or percentage of length, (be it the frequency of T-units, words, or sentences) before significant statistical tests were applied. However, there is little research on what occasions and in what genre high and low proficient students produce differing lengths of texts. This study may contribute towards this. Haswell (1988) advises choosing texts that are of the same length or nearly the same length when comparing levels. However, anyone who has taught composition knows that even the same student writes at varying lengths on different occasions. Again, Jafarpur (1991, p.464) in an attempt to follow Haswell's advice (1988) chose texts that were more or less the same length and mentioned the margin in his study as being from 125-270 words for the long texts and from 51-72 for the shorter texts. Since Haswell's (1988) margin was not objectively defined, it is not surprising to find such a large range even among the texts that are considered long or short. Also, it is possible in individual cases to find in a high rated text which is shorter in t-units and words than a low rated text a higher frequency of cohesion links.

In this context of uncertainty exactly how length would affect the cohesive analysis as adapted according to Hoey (1991a) it was found necessary to account for text length. Thus, before the tested hypotheses for the analysis of cohesion are given, two general characteristic studies related to text length were carried out: 1) comparison of the length of the texts in both D1 and D2 texts according to level and study language and 2) the relation between text length and text level. The results will also be of general interest to teachers of writing in Lebanon since little research has been carried out on those students' writing in English.

The *level* of the texts was determined by the holistic ratings the (see Chapter Six) with the 40 D1 texts divided equally between 20 High and 20 low proficiency levels and the 40 D2 texts divided into 14 High, 15 Mid and 11 Low proficiency levels. The *length* of the texts was operationally described by calculating 1) the mean frequency of words in texts, 2) the mean frequency of words per sentence, and 3) the mean frequency of sentences in the texts, 4) the mean frequency of paragraphs and 5) the mean frequency of sentences per paragraph.

This is a necessary step to determine whether there are any significant differences between the HT and LT so that adjustments for length could be made if required before the lexical cohesive analysis. Although the mean frequency of paragraphs and the mean frequency of sentences per paragraph do not influence the cohesive analysis, since the latter is done over the whole text, the results are included here to give a complete view. The results are given below according to text level and the study language of the students who wrote the texts.

A. Frequency of Words in Texts

The number of words in the texts was obtained by the using the computer Word for Windows V. 6 which calculates the actual number in each text.

1. By Text Level in Diagnostic 1 and 2 Texts

The results in Tables 8.25 and 8.26 indicate that in D1 and D2 the HT had the higher mean score of words which was highly significant (p=.001). This confirms previous research in the field in which maturer pieces of writing have been found to have either longer T-units or more sentences (see Chapters Three and Five).

Table 8.25   Mean Frequency of Words in D1 and 2 Texts By Level and Study Language

Texts	Diagnostic 1		Diagnostic 2	
	Mean	St. Dev.	Mean	St. Dev.
HT	570	91	556	119
EHT	599	90	544	94
FHT	536	84	572	155
MT			456	109
EMT			453	73
FMT			457	127
LT	385	97	385	77
ELT	435	147	424	55
FLT	368	74	370	82

EHT: High Rated Texts written by students whose high school medium of instruction is English
FHT: High Rated Texts written by students whose high school medium of instruction is French
EMT: Mid Rated Texts written by students whose high school medium of instruction is English
FMT: Mid Rated Texts written by students whose high school medium of instruction is French
ELT: Low Rated Texts written by students whose high school medium of instruction is English
FLT: Low Rated Texts written by students whose high school medium of instruction is French

Table 8.26   Significant Differences in Frequency of Words by Level and Study Language in D1 and 2 Using the Mann Whitney Statistical Test

	Diagnostic 1		Diagnostic 2	
By Level	Z	2 Tail P.	Z	2 Tail P.
HT with LT	-4.4635	.0000*	-3.6303	.0003*
HT with MT			-2.0081	.0446*
MT with LT			-2.2188	.0265*
By Study Lang.				
EHT with FHT	-1.5575	.1194	- .3873	.6985
EMT with FMT			.0000	1.0000
ELT with FLT	-1.0478	.2947	-1.9373	.0527

2. By Text Level and Study Language in D1 and D2 Texts

The results in the same tables indicate that the D1 and D2 ET contained a higher mean score of words than the FT except for the FHT which had the higher mean score, but the differences were not significant.

3. Differences Between D1 and D2 Texts - By Level

The results in Table 8.25 and 8.27 indicate that the HT had a lower mean number of words in D2 and the LT had the same in both D1 and D2 with only the HT showing a significant difference (p<.05).

Table 8.27   Significant Differences in Frequency of Words By Level Between D1 and D2 Texts Using the Wilcoxon Matched- Pairs Signed-Ranks Test

	Z	2 Tail P.
HT	-2.4640	.0137*
LT	-1.6053	.1084

Both D1 and D 2 texts showed almost similar results in that the HT were significantly longer as measured by mean score of words, but the study language variable at the same level did not significantly affect the length of the text.

B. Frequency of Sentences in Texts

The number of sentences in the texts was calculated using Hoey's (1991a) criteria for a sentence (one that begins with a capital letter and ends with a period). The highest number of sentences found in any one text was 35 and the lowest 6 when all levels of texts were considered in both D1 and D2 texts.

1. By Text level in Diagnostic 1 and 2 Texts

The results in Table 8.28 and 8.29 indicate that the HT contained a higher mean frequency of sentences than the LT in both D1 and D2 texts with high significant differences (p<.01).

Table 8.28   Mean Frequency of Sentences in D1and D2 by Level and Study Language

Texts	Diagnostic 1		Diagnostic 2	
	Mean	St. Dev.	Mean	St. Dev.
HT	27	5	30	7
EHT	28	5	32	4
FHT	25	5	27	9
MT			23	8
EMT			26	4
FMT			21	9
LT	18	6	17 .	5
ELT	21	6	18	8
FLT	17	5	17	4

Table 8.29   Significant Differences in Frequency of Sentences by Level and Study Language in D1 and D2 Using the Mann- Whitney Statistical Test

Texts	Diagnostic 1		Diagnostic 2	
By Level	**Z**	**2 Tail P.**	**Z**	**2 Tail P.**
HT with LT	-3.9997	.0001*	-3.2963	.0010*
HT with MT			-2.5855	.0097*
MT with LT			-2.0837	.0372*
By Study Lang.				
EHT with FHT	-1.2244	.2208	- .3966	.6917
EMT with FMT			-1.1042	.2695
ELT with FLT	- .7880	.4307	- .3450	.7301

2. By Text Level and Study Language in D1 and D2 Texts

The results in Tables 8.28 and 8.29 indicate that the D1 and D2 ET at both levels contained the higher mean sentence score but there were no significant differences in both HT and LT.

3. Differences between D1 and D2 Texts - By Level

The results in Tables 8.28 and 8.30 indicate that the HT had a higher mean frequency of sentences in D2 texts than in D1 and the LT a lower mean in D2, but the difference was significant only in the HT (p<.05).

Table 8.30   Significant Differences in Frequency of Sentences by Level between D1 and D2 Using the Wilcoxon Matched- Pairs Signed-Ranks Test

Texts	Z	2 Tail P.
HT	-2.4606	.0139*
LT	-1.7891	.0736

Both D1 and D2 texts showed almost similar results in that the texts had significantly more sentences at the high level, but the study language variable at the same level did not significantly affect the mean frequency of sentences. This again confirms the research in the field that highly rated texts are longer.

C. Frequency of Words Per Sentence

The mean frequency of words per sentence for each text was calculated on the basis of the number of words in each text divided by the number of sentences in the particular text. It was important to check for any significant differences in the mean frequency of words per sentence since the analysis of the lexical cohesion was based on the lexical links (as identified by the criteria) which each sentence has with previous and consecutive sentences.

1. By Text Level in D1 and D2 Texts

The results in Tables 8.31 and 8.32 indicate that the LT had a higher mean frequency of words per sentence than the HT in both D1 and D2 texts; however, there were no significant differences. An explanation for this could be that students at a lower level of writing proficiency tend to include more redundancy in their writing than those at the higher levels.

Table 8.31 **Mean Frequency of Words Per Sentence in D1 and D2 by Level and Study Language**

Texts	Diagnostic 1		Diagnostic 2	
	Mean	St. Dev.	Mean	St. Dev.
HT	21.8	5.3	19.6	5.5
EHT	21.5	4.5	17.3	2.7
FHT	22.1	6.5	22.7	6.9
MT			21.2	6.3
EMT			17.4	2.1
FMT			23.1	6.9
LT	23.2	9	23.7	8.5
ELT	22.1	8.9	26.6	13.9
FLT	23.6	9.3	22.6	6.5

Table 8.32 **Significant Differences in Frequency of Words Per Sentence by Level and Study Language in D1 and D2 Using the Mann Whitney Statistical Test**

Texts	Diagnostic 1		Diagnostic 2	
By Level	Z	2 Tail P.	Z	2 Tail P.
HT with LT	- .0947	.9246	-1.2302	.2186
HT with MT			- .8299	.4066
MT with LT			- .4992	.6176
By Study Lang.				
EHT with FHT	- .1521	.8791	-1.9408	.0523
EMT with FMT			-2.2045	.0275*
ELT with FLT	- .3493	.7269	-1.7146	.0864

2. By Text Level and Study Language in D1 and D2 Texts

The results in Tables 8.31 and 8.32 indicate that the FT D1 and D2 at both levels had in general a slightly higher mean frequency of words per sentence than the ET; however, there were no significant differences.

3. Differences Between D1 and D2 Texts - By Level

The results in Tables 8.31 and 8.33 indicate that the HT decreased in mean frequency of words per sentence in D2 texts and the LT increased, but the difference was highly signficant only in the HT (p<.001).

Table 8.33 Significant Differences in Frequency of Words Per Sentence by Level Between D1 and D2 Using the Wilcoxon Matched-Pairs Signed-Ranks Test

Texts	Z	2 Tail P.
HT	-3.2853	.0010*
LT	- .2817	.7782

Again, this result confirms that the HT have shorter sentences in comparison to the other levels. Although no causal claims can be made, it may be attributed to the fact that higher proficiency students tend to be more concise in the construction of their sentences. An explanation why the English educated students tended to write shorter sentences is that teachers probably stress more on conciseness than they do in the French system of education. A further observation is that when the French educated students make the shift to writing in English, they want to make sure they have written down all necessary information, recall being very important in their system of education.

D. Frequency of Paragraphs in Texts

The mean frequency of paragraphs was calculated based on each new paragraph beginning with the first indented line and dealing with one aspect of the thesis statement. Introductory and concluding paragraphs were considered to be the first and last respectively in most cases. A few texts did not have either an introductory or concluding paragraph, and a few had neither; these cases were noted.

1. By Text Level in D1 and D2 Texts

The results in Tables 8.34 and 8.35 indicate that the HT had in general one higher mean frequency of paragraphs than the LT in both D1 and D2 texts but the differences were not significant.

Table 8.34 Mean Frequency of Paragraphs in D1 and D2 by Level and Study Language

Texts	Diagnostic 1		Diagnostic 2	
	Mean	St. Dev.	Mean	St. Dev.
HT	5	1	5	1
EHT	5	1	5	2
FHT	5	1	5	1
MT			5	1
EMT			4	1
FMT			5	1
LT	4	1	4	1
ELT	4	2	4	2
FLT	5	1	4	1

Table 8.35   Significant Differences in Frequency of Paragraphs by Level and Study Language in D1 and D2 Using the Mann Whitney Statistical Test

Texts	Diagnostic 1		Diagnostic 2	
By Level	Z	2 Tail P.	Z	2 Tail P.
HT with LT	-.7566	.4493	- .8498	.3954
HT with MT			- .1151	.9084
MT with LT			-1.2499	.2113
By Study Lang.				
EHT with FHT	- .9175	.3589	- .1386	.8898
EMT with FMT			-1.0237	.3060
ELT with FLT	-1.0804	.2799	- .7559	.4497

2. By Text Level and Study Language in Diagnostic 1 and 2 Texts

The results in Tables 8.35 and 8.36 also indicate no significant differences between the HT and LT when the study language was considered at the same level.

3. Differences between D1 and D2 Texts - By Level

The results in Tables 8.34 and 8.35 indicate that there are no differences between the mean frequency of paragraphs between D1 and D2 in both HT and LT. Although the mean frequency of paragaraphs does not affect the analysis of lexical cohesion, it was interesting to have the foregoing fact confirmed. The findings showed that the HT had one mean paragraph more than the LT in both D1 and 2 texts, but differences were not significant by level or by study language. The number of paragraphs in a text is generally the same for both French and English educated students since the division of ideas into introduction, body and conclusion is a standard text format for both languages.

E. Frequency of Sentences in Paragraphs

The mean frequency of sentences in each type of paragraph of the text (introductory, body or concluding) was noted first and then converted into a percentage based on the total number of sentences in the text. Although the mean frequency of sentences in each type of paragraph does not affect the analysis of lexical cohesion, it was interesting to find out whether there were any differences when the level and study language variables were considered.

1. Frequency of Sentences in Introductory Paragraph

The introductory paragraph was identified as the first one in the text; it may end with a thesis statement which indicates the main ideas of the topic developed in the body paragaraphs.

a. *By Text Level in D1 and D2 Texts*

The results in Tables 8.36 and 8.37 indicate that the LT had the higher mean percentage of sentences in D1 and D2 texts; however, the differences were not significant.

Table 8.36 Mean Percent Frequency of Sentences in Introductory Paragraphs in D1 and D2 by Level and Study Language

Texts	Diagnostic 1		Diagnostic 2	
	Mean	St. Dev.	Mean	St. Dev.
HT	16.71	7.89	14.68	4.97
EHT	16.23	6.08	15.79	5.28
FHT	17.30	10.04	13.19	4.52
MT			15.29	8.47
EMT			19.43	8.68
FMT			13.22	7.98
LT	19.39	9.94	19.83	9.12
ELT	11.94	7.95	9.87	6.45
FLT	21.87	9.47	23.56	6.97

Table 8.37 Significant Differences in Percent Frequency of Sentences in the Introductory Paragraphs by Level and Study Language in D1 and D2 Using the Mann Whitney Statistical Test

Texts	Diagnostic 1		Diagnostic 2	
By Level	Z	2 Tail P.	Z	2 Tail P.
HT with LT	- .9474	.3434	-1.1718	.2413
HT with MT			- .3275	.7433
MT with LT			-1.2765	.2018
By Study Lang.				
EHT with FHT	-.0380	.9697	-1.0339	.3012
EMT with FMT			-1.5922	.1113
ELT with FLT	-1.6597	.0970	-2.1718	.0299*

b. *By Text Level and Study Language in D1 and D2 Texts*

The results in Tables 8.36 and 8.37 indicate that in both the D1 and D2 texts the FLT in general had the highest mean percentage; however, the differences were only significant (p<.05) in the D2 between the HT and LT. These findings show that students who are French educated and specifically at a low level of writing proficiency produce longer introductory paragraphs. There does not seem to be a clear reason for this, apart from the apparent difficulty regarding writing concisely.

c. *Differences between D1 and D2 - By Level*

The results in Table 8.36 indicate that the HT decreased slightly in mean percent frequency of sentences in D2, while the LT increased slightly; however, differences were not significant. These findings show that the LT have a higher mean percentage of sentences in the introduction in relation to the number of the sentences in the texts when compared to those in the HT, but that it was only significant when the study language in Diagnostic 2 was taken into account with the FLT having the highest percentage.

If conciseness in the introduction is to be taken as an indication of good academic writing, the results suggest that the French educated low proficiency students on these particular texts tended to write longer introductions and may need specific instruction geared to their particular problems.

2. Frequency of Sentences in Body Paragraphs

The body paragraphs were identified as those that developed the main ideas and each body paragraph was identified as beginning with a topic sentence and focusing on one of the main ideas mentioned in the thesis statement.

a. *By Text Level in D1 and D2 Texts*

The results in Table 8.38 and 8.39 indicate that in the D1 and D2 texts the HT had the higher mean percentage of sentences, but differences were not significant.

Table 8.38   Mean Percent Frequency of Sentences in the Body Paragraphs in D1 and 2 by Level and Study Language

Texts	Diagnostic 1		Diagnostic 2	
	Mean	St. Dev.	Mean	St. Dev.
HT	72.65	11.06	73.07	8.69
EHT	70.94	10.82	70.42	8.52
FHT	74.75	11.62	76.60	8.26
MT			74.44	8.30
EMT			69.54	9.40
FMT			76.89	6.92
LT	69.93	11.64	69.69	9.86
ELT	69.93	7.95	78.73	10.55
FLT	68.80	10.51	66.30	7.68

Table 8.39 **Significant Differences in Frequency of Sentences in the Body Paragraphs by Level and Study Language in D1 and D2 Using the Mann Whitney Statistical Test**

Texts	Diagnostic 1		Diagnostic 2	
By Level	Z	2 Tail P.	Z	2 Tail P.
HT with LT	-.9471	.3436	- .9379	.3483
HT with MT			- .3275	.7433
MT with LT			-1.5827	.1135
By Study Lang.				
EHT with FHT	-.5700	.5687	-1.2910	.1967
EMT with FMT			-1.2258	.2203
ELT with FLT	-.0874	.9304	-1.9432	.0520

b. *By Text Level and Study Language in D1 and 2 Texts*

The results in Tables 8.38 and 8.39 further indicate that in the D1 and D2 texts the FLT had the lowest mean percentage of sentences and the differences were approaching significant values (p=.0520) in D2.

c. *Between D1 and D2 - By Text Level*

The results in Table 8.38 also show a very minimal increase the mean percent frequency of sentences the D2 HT and a minimal decrease in LT which were not significant.

The findings indicate that the French educated students may not have developed their topic as extensively as the other groups and perhaps instruction at both the high school and university level may benefit from further investigation.

3. Frequency of Sentences in Concluding Paragraphs

The concluding paragraph was identified as the final paragraph in the text. It may begin by restating the thesis statement; it does not have any new ideas or details, and is summative; sometimes introduced by transitions of conclusion e.g. *In conclusion, On the whole, In sum* etc.

a. *By Text Level in D1 and 2 Texts*

The results in Tables 8.40 and 8.41 indicate that in the D1 texts the LT had a higher mean percent of sentences in the concluding paragraph and in the D2 texts the HT had a higher percentage but differences were not significant.

Table 8.40 Frequency of Sentences in Concluding Paragraphs in D1 and D2 Texts by Level and Study Language

Texts	Diagnostic 1		Diagnostic 2	
	Mean	St. Dev.	Mean	St. Dev.
HT	10.44	9.56	12.34	5.22
EHT	11.02	11.84	13.30	4.26
FHT	9.72	6.40	11.04	6.48
MT			9.42	5.10
EMT			11.02	4.87
FMT			8.62	5.26
LT	11.29	9.90	10.13	5.55
ELT	14.75	9.49	10.11	9.65
FLT	10.14	10.08	10.14	4.18

Table 8.41 Significant Differences in Frequency of Sentences in Concluding Paragraphs by Level and Study Language in D1 and 2 Texts Using the Mann Whitney Statistical Test

Texts	Diagnostic 1		Diagnostic 2	
By Level	Z	2 Tail P.	Z	2 Tail P.
HT with LT	- .2168	.8283	- .6444	.5193
HT with MT			-1.1584	.2467
MT with LT			- .5849	.5586
By Study Lang.				
EHT with FHT	- .6477	.5172	- .6512	.5149
EMT with FMT			- .3687	.7123
ELT with FLT	-1.2248	.2207	.0000	1.0000

b. *By Level and Study Language in D1 and 2 Texts*

The results in Tables 8.40 and 8.41 indicate that in the D1 and D2 texts the FT at both levels had the lower mean percent of sentences in general; however, there were no significant differences.

c. *By Level between D1 and D2*

The results indicated a minimal increase in mean percent frequency in D2 HT and a minimal decrease in the D2 LT, but differences were not significant.

The findings show that both French and English educated students produce the same length of concluding paragraphs. Conclusions are usually taught as short summative parts of texts in both French and English language educational systems

F. Relation between Text Length and Text Level in D1 & D2 Texts

The second part of the description of the general characteristics related to the length of the texts is the correlation between text length and text level using the Spearman Correlation Coefficient Test. The results in Table 8.42 indicate that there is no significant relation between text level and text length in D1 and D2 texts when correlations were carried out by level.

Table 8.42 Spearman's Correlation Coefficient and Significance Level between Text Length and Level in D1 and D2 Texts

Texts	ρ	p
Diagnostic 1 (N=40)		
Scores with mean words in text	.5209	.001*
Scores with mean words per sentence	-.0647	.692
Scores with mean sentences in text	.5409	.000*
High Texts (N=20)		
Scores with mean words in text	-.1390	.559
Scores with mean words per sentence	-.1338	.574
Scores with mean sentences in text	.0308	.897
Low Texts (N=20)		
Scores with mean words in text	-.3800	.098
Scores with mean words per sentence	-.1898	.423
Scores with mean sentences in text	-.1472	.536
Diagnostic 2 (N=40)		
Scores with mean words in text	.4660	.002*
Scores with mean words per sentence	-.2384	.139
Scores with mean sentences in text	.4816	.002*
High Texts (N=14)		
Scores with mean words in text	-.1705	.560
Scores with mean words per sentence	-.1587	.588
Scores with mean sentences in text	-.2812	.330
Mid Texts (N=15)		
Scores with mean words in text	.0322	.909
Scores with mean words per sentence	-.1127	.689
Scores with mean sentences in text	.1120	.691
Low Texts (N=11)		
Scores with mean words in text	.0410	.905
Scores with mean words per sentence	-.2096	.536
Scores with mean sentences in text	.2702	.422

However, the results in Table 8.42 indicate that there are high significant relations ($p<.01$) between text level and text length in D1 and D2 texts when the total sample holistic scores were correlated with the 1) mean frequency of words in the texts and 2) mean frequency of sentences in the texts, but not when the mean frequency of words per sentence was

considered. It was not relevant to correlate the mean percent frequency of paragraphs or the mean percent frequency of sentences per paragraph since the cohesive analysis extends over the whole text irrespective of paragraph boundaries.

G. Summary of Text Length in D1 and D2 Texts

The major finding is that the HT are significantly longer than the LT in both D1 and D2 texts and that study language does not affect the length of the text. Although testing for significance was not carried out, in general, the mean percent frequencies indicate that in all texts, concluding paragraphs are the shortest, introductory paragraphs are a little longer than the latter, and the body paragraphs are the longest in the texts. This follows the standard format of teaching the essay in EFL classes.

Due to the significant differences found in the levels in length of texts as measured by frequency of words and sentences and significant relations found when text length was correlated with text level in the whole sample (N=40), the raw data of lexical cohesion was expressed as a percentage of the total particular variable analyzed and/or the number of sentences in the text to account for the differences in text length and to avoid any invalid and spurious findings (Haswell 1988). It was not necessary to account for the number of words per sentence, there being no significant difference found in the results.

V. Cohesion

Before the hypotheses of the study's research questions were tested, some data was explored concerning cells, links and bonds (see Figure 8.1). This consisted of obtaining 1) the percent frequency of cells according to the number of links, 2) the percent frequency of bonded versus unbonded sentences in the texts and 3) the percent frequency of bonds with consecutive sentences according to the type of paragraph (see Appendix O). A word on each is given below.

In order to decide on the cut off point for bonding, percent frequencies of the cells were obtained corresponding to the number of links (see Appendix O). The threshold for bonding for the EFL texts was decided at 2 links equal one; however, three links equal one bond was also considered in the statistical testing (see Appendix O for details on computing the threshold level for the EFL texts). When the percent frequencies of cells according to the number of links was compared in D1 and D2 texts, there were no significant differences by level and study language at the same level except the LT had a higher frequency on D2. All in all, these EFL texts seem to be at a 'basic' level of proficiency.

Second, it was interesting to calculate the percentage of bonded and unbonded sentences in the texts (see Appendix O). When two links equal one bond was considered, the texts indicated 17-28% unbonded sentences and when three links equal one bond was considered, the texts indicated between 47-68% unbonded which as Hoey (1991) points is not unusual in texts. There were no significant differences by level or study language at the same level except that the FLT had a significant higher frequency of bonded sentences in D2 texts, probably showing that these texts are more lexically dense than the ELT.

Third, since the EFL composition teaching/learning focuses on a three part organization structure: introduction, body and conclusion and since topic opening and topic closing sentences would be further investigated in relation to coherence (see Chapter Ten), it was interesting to obtain information on the strength of the bonding between these types of paragraphs. Bonding between consecutive sentences over paragraphs (from introduction to later sentences, body to later sentences and conclusion to later sentences) was investigated. Results showed that there were the most bonded sentences between body paragraphs and later or subsequent sentences and the least between the concluding paragraphs to later or subsequent sentences. When bonding was investigated between previous sentences over paragraphs (introduction to earlier sentences, body to earlier sentences, conclusion to earlier sentences), it was found that the body had the highest bonding with previous sentences, and the introduction the least. There were no significant differences between levels and study languages.

Specifically, it was investigated whether there were differences by text level and study language in the frequency of bonds each type of paragraph had with consecutive types of paragraphs. The results in the tables (see Appendix O) indicate that although the HT show higher percent frequencies of bonding in D1, D2 and between D1 and D2, there were no significant differences in the frequency of bonds between types of paragraphs and text level. When the study languages were compared at the same level, the FLT had a higher significant frequency of bonds on D2 between the introduction and body paragraphs than the ELT when 2 links equal one bond were considered. However, when the D1 and D2 texts were compared, the ELT decreased significantly in the frequency of bonds between the introduction and the body paragraphs compared with FLT when two links equal one bond. This finding shows that both proficiency level texts written by English and French educated students follow the three part essay organizational structure in that the introduction introduces the ideas and the body paragraphs develop them and the concluding paragraph is summative but that the

FLT indicate more lexical density when compared to the ELT (see Chapter Ten, section IV. D. and Appendix O). Finally, the bonding between paragraphs indicated that repetition links connect over distances. It was interesting to find that although the HT had the higher frequency of bonds between the widest distance in the essay, introduction to conclusion, the differences were not significant when compared to the LT. It was left to bonding between sentences over the whole text to determine cohesive patterns over distances in the texts (see Chapter Nine, Section III.). This objective confirmation of the paragraph organization of the EFL essay is a significant finding in the teaching/learning situation.

This chapter presented results of the reliability and validity of the holistic and analytic scoring of the texts and the general characteristics of text length which were both basic steps for the in-depth analysis of the texts. The chapter concluded with a word on some preliminary cohesion analysis data that was obtained related to cells, links and bonds. The following part presents the results of the study beginning with those related to the central research questions in Chapter Nine.

CHAPTER NINE

LEXICAL COHESION ANALYSIS

"Say not, 'I have found the truth,' but
rather, 'I have found a truth'."
Gibran, The Prophet

This chapter will report the results of the lexical cohesion analysis of the texts. The results will be given according to the research questions and the hypotheses that were generated from them. Interpretations and discussions follow.

For easy reference, each research question and related hypotheses will be given.

I. First Research Question

Is lexical cohesion an indicator of (related to) writing proficiency in the expository EFL texts in the Freshman English I course?

The aim was specifically to find out whether lexical cohesion was related to the holistically high and low rated texts written at the beginning of the semester (Diagnostic 1 texts) and at the end of the semester after three months of regular English instruction (Diagnostic 2).

Three separate criteria were taken as **indicators of lexical cohesion** or operational descriptions in the texts:

1. **The frequency of the bonds** in the texts when

   a) two links equal one bond
   b) three links equal one bond
   The raw frequency of bonds is expressed as a percentage of the total number of cells in a given text.

2. **The distance of the bonds** (referrred to as the *bond indicator*) as measured by the number of intervening sentences when

   a) two links equal one bond
   b) three links equal one bond
   The distance of bonds was calculated as shown in Chapter Seven.

3. **The frequency of the type of links** as outlined in the thirteen types listed hereunder and detailed in Chapter Seven. *The raw frequency of each of the 13 type of links is expressed as a percentage of the total number of links in a given text.*

   Textual Link Types (In order of Importance in EFL Texts)

   a) CP1   complex paraphrase type 1
   b) CP2   complex paraphrase type 2
   c) CP3   complex paraphrase type 3
   d) SPP   simple partial paraphrase
   e) SMP1   simple mutual paraphrase type 1

f) SMP2   simple mutual paraphrase type 2
g) CR1   complex repetition type 1
h) CR2   complex repetition type 2
i) CR3   complex repetition type 3
j) SR   simple repetition
k) COR   co-reference

Grammatical Link Types (In order of importance in EFL Texts)
l) D   deixis
m) S   substitution

A. Relation between Frequency of Bonds and Text Level in D1 and D2 Texts

The first central research question generated four null hypotheses for the **first** type of lexical cohesion criterion: the frequency of the bonds in the texts.

The null hypotheses 1 and 2 will be reported on first. (NH is used interchangeably with Null Hypothesis(es) hereafter.)

1. In HT When 2 and 3 Links Equal One Bond in D1 - Null Hypothesis 1

There is no statistically significant relation between the *frequency of bonds* expressed as a percentage of the total cells in a given text when 1) two links equal one bond and 2) three links equal one bond and *high* holistically rated EFL texts in the Freshman English I course *Diagnostic 1* texts.

2. In LT When 2 and 3 Links Equal One Bond in D1 - Null Hypothesis 2

There is no statistically significant relation between the *frequency of bonds* expressed as a percentage of the total number of cells in a given text when 1) two links equal one bond and 2) three links equal one bond and *low* holistically rated EFL texts in the Freshman English I course in *Diagnostic 1* texts.

The Spearman rank correlation coefficient statistical procedure was carried out between the 20 Diagnostic 1 holistic scores of the high rated texts (**HT**) and the percent number of bonds 1) when two links equal one bond and 2) when three links equal one bond in the same 20 texts (see Chapter Six on how the texts were holistically rated and Chapter Seven on how the percent number of bonds were calculated). The results given in Table 9.1 showed no significant correlations for 1) two links equal one bond ($\rho=-.0604$; $p = .80$) and 2) three links equal one bond ($\rho=-.3204$; $p = .17$).

When reporting the results in the following tables, the significance levels are expressed as follows:

    *** p < .001   Very highly significant
    ** p < .01   Highly significant
    * p < .05   Significant

Also quantity of texts in the tables are as follows:

By Level

D1	HT	= 20	D2 HT	= 14
D1	LT	= 20	D2 MT	= 15
			D2 LT	= 11

By Study Language at the same Level

D1	EHT = 11	D2 EHT = 8
	FHT = 9	FHT = 6

D1	ELT = 5	D2 EMT = 5
	FLT = 15	FMT = 10

D2	ELT = 3
D2	FLT = 8

Table 9.1 Spearman Correlation Coefficients and Significance Levels between Bonds and Holistic Scores in D1 HT and LT

	HT		LT	
	ρ	p	ρ	p
+Bonds and Scores	-.0604	.80	.2964	.21
++Bonds and Scores	-.3204	.17	.3037	.19

+2 links = 1 bond   ++3 links = 1 bond

Spearman rank correlation coefficient statistical procedure was also carried out in the same way with the low rated texts (LT). The results in Table 9.1 also showed no significant correlation for 1) two links equal one bond (ρ=.2964; p = .21) and 2) three links equal one bond (ρ=.3037; p = .193).

Since the significant p values for the two-tailed tests obtained is higher than .05, the risk that the scores occurred by chance is high for the correlations carried out in the Diagnostic 1 HT and LT. *Thus, the null hypotheses 1 and 2 are accepted*

The null hypotheses 3 and 4 will be considered below.

3. In HT When 2 and 3 Links Equal One Bond in D2 - Null Hypothesis 3

There is no statistically significant relation between the *frequency of bonds* expressed as a percentage of the total number of cells in a given text when 1) two links equal one bond and 2) three links equal one bond and *high* holistically rated EFL texts in the Freshman English I course in *Diagnostic 2* texts.

4. In LT When 2 and 3 Links Equal One Bond in D2 - Null Hypothesis 4

There is no statistically significant relation between the *frequency of bonds* expressed as a percentage of the total cells in a given text when 1) two links equal one bond and 2) three links equal one bond and *low* holistically rated EFL texts in the Freshman English I course in *Diagnostic 2* texts.

The Spearman rank correlation coefficient statistical procedure was carried out on the Diagnostic 2 texts separately between the 14 holistic scores of the *high* rated texts, the 11 *low* rated texts and the 15 *mid* rated texts and the percent number of bonds 1) when two links equal one bond and 2) when three links equal one bond in the same texts. The results displayed in Table 9.2 showed no significant correlation between the holistic scores and the mean percent of bonds for 1) two links equal one bond in the HT (p=-.1991; p = .5 in the LT (p=-.3168; p = .373) and in the MT (p=-.1619; p = .564) and 2) three links equal one bond in the HT (p=-.1748; p = .55) in the LT (p=-.2027; p = . 574) and in the MT (p=-.2457; p = . 377).

Table 9.2 Spearman Correlation Coefficients and Significance Levels between Bonds and Holistic Scores in D2 HT, LT & MT

	HT		LT		MT	
	ρ	p	ρ	p	ρ	p
+Bonds and Scores	-.1991	.5	-.3168	.373	-.1619	.564
++Bonds and Scores	-.1748	.55	-.2027	.574	-.2457	.377

+2 links = 1 bond   ++ 3 links = 1 bond

Thus, there were no significant correlations between 1) HT holistic scores and mean percent of bonds and 2) LT holistic scores and mean percent of bonds in the Diagnostic 2. *Thus, the null hypotheses 3 and 4 are accepted.*

Discussion

Results indicate that the percent frequency of bonds in the texts is not related to the level of the text as evaluated by the holistic ratings. In other words, the bond variable (as calculated) is not an indicator of writing proficiency in the texts in question. Although no causal claims can be made as to the source of this result, a speculation that needs further investigation could be made that the teaching of writing in both the French and English systems of education in the high schools in Lebanon includes very little instruction in cohesion (lexical or other) at either the grammatical or text levels. Also, the holistic evaluation criteria of Freshman English texts in the EFL Program at LAU (LOC) does not consider cohesion, lexical or other, to a

great extent. This finding confirms previous research in the field (see Chapter Five) which found no significant relation between frequency counts of cohesive items and overall text proficiency as determined by holistic scoring methods. It would seem that there must be something more in the texts that should be accounted for when relating cohesion to overall proficiency quality. Alternatively, other methods of showing the relationship, if they exist, should be considered. It is hoped that this present research may point a way toward this.

B. Relation between Distance of Bonds and Text Level in D1 and D2 Texts

This section will report on the results of the four null hypotheses generated from the first research question concerning the correlation between the second type of lexical cohesion criteria (the distance between the bonds in the texts) and the holistic ratings of the texts in both Diagnostic 1 and 2 texts. For convenient reference, the first research question and its operational description will be given below.

Is lexical cohesion an indicator of (related to) writing proficiency in the expository EFL texts in the Freshman English I course?

The **second** operational description or criterion of **lexical cohesion** is: **The distance of the bonds** (referrred to as the bond indicator) as measured by the number of intervening sentences between bonded pairs of sentences.

The null hypotheses 5 and 6 concerning Diagnostic 1 texts will be reported on below.

1. In HT When 2 and 3 Links Equal One Bond in D1 - Null Hypothesis 5

There is no statistically significant relation between the *distance of bonds* (as represented by the bond indicator) when 1) two links equal one bond and 2) three links equal one bond and *high* holistically rated EFL texts in the Freshman English I course in *Diagnostic 1* texts.

2. In LT When 2 and 3 Links Equal One Bond in D1 - Null Hypothesis 6

There is no statistically significant relation between the *distance of bonds* (as represented by the bond indicator) when 1) two links equal one bond and 2) three links equal one bond and *low* holistically rated EFL texts in the Freshman English I course in *Diagnostic 1* texts.

Again the Spearman rank correlation coefficient statistical procedure was carried out between the 20 diagnostic 1 holistic scores of the high rated texts **(HT)** and the distance between bonds when two links equal one bond and 2) when three links equal one bond in the same 20 texts. The results in Table 9.3 showed no significant correlations between mean distance of bonds and holistic scores for 1) two links equal one bond ($p=-.0332$; p=.889) and 2) three links equal one bond ($p=-.2570$; p=.274).

**Table 9.3   Spearman Correlation Coefficients and Significance Levels
between Distance of Bonds and Holistic Scores in D1 HT and LT**

	HT		LT	
	ρ	p	ρ	p
+Bond D and Scores	-.0332	.889	.1222	.608
++Bond D and Scores	-.2570	.274	.1943	.412

+Bond mean distance when 2 links = 1 bond
++Bond mean distance when 3 links = 1 bond

The Spearman rank correlation coefficient statistical procedure was also carried out in the same way with the low rated texts **(LT)**. The results in Table 9.3 also showed no significant correlations for 1) two links equal one bond (p=.1222; p = .608) and 2) three links equal one bond (p=.1943; p = .412).

Thus, the null hypotheses 5 and 6 are accepted.

The null hypotheses 7 and 8 concerning Diagnostic 2 Texts will be reported below.

3. In HT When 2 and 3 Links Equal One Bond in D2 - Null Hypothesis 7

There is no statistically significant relation between the *distance of bonds* (as represented by the bond indicator) when 1) two links equal one bond and 2) three links equal one bond and *high* holistically rated EFL texts in the Freshman English I course in *Diagnostic 2* texts.

4. In LT When 2 and 3 Links Equal One Bond in D2 - Null Hypothesis 8

There is no statistically significant relation between the *distance of bonds* (as represented by the bond indicator) when 1) two links equal one bond and 2) three links equal one bond and *low* holistically rated EFL texts in the Freshman English I course in *Diagnostic 2* texts.

Once more the Spearman rank correlation coefficient statistical procedure was carried out on the Diagnostic 2 texts separately between the 14 holistic scores of the high rated texts, the 11 low rated texts and the 15 mid rated text and the mean distance of bonds 1) when two links equal one bond and 2) when three links equal one bond in the same texts. The results in Table 9.4 showed no significant correlation between the holistic scores and the mean distance of bonds for 1) two links equal one bond in the HT (p=.3451; p=.227) in the LT (p=.3928; p= .262) but a significant correlation in the MT (p=.5144; p=.050) but not for 2) three links equal one bond in the HT (p=.0752; p=.798) in the LT (p=.2344; p =.514) and in the MT (p=.2086; p=.456).

Table 9.4   Spearman Correlation Coefficients and Significance Levels between Distance of Bonds and Holistic Scores in D2 HT,LT & MT

	HT		LT		MT	
	ρ	p	ρ	p	ρ	p
+Bond D and Scores	.3451	.227	.3928	.262	.5144	.050*
++Bond D and Scores	.0752	.798	.2344	.514	.2086	.456

+ Bond mean distance when 2 links = 1 bond
++ Bond mean distance when 3 links = 1 bond

There were no significant correlations between holistic scores and mean bond distance in the Diagnostic 1 texts (HT and LT) and in the Diagnostic 2 texts (HT and LT). The significant finding in the MT is suggestive that there may be a relation between bonding distance and writing quality, but it was not a high indication. Since the MT are not the focus of the present study, it was reported only to give a complete view of the 40 texts in D2.

Thus, the null hypotheses 7 and 8 are accepted..

Discussion

Results indicate that the distance of the bonds was not related to the level of the texts. If we are to take Hoey's claim (1991a) that 'good' texts have an occurrence of sentences bonding over longer stretches of text; the bonding distance (as identified by the mean percent of intervening sentences between bonds over the text) in the EFL high texts did not indicate that it was a necessary quality of the higher proficient writing as identified in this study. It may be that even the bonding distance in the HT is not high enough to indicate writing quality in EFL essays and perhaps even the high proficient writers are still 'basic writers'. That is, they still have not reached a level of writing proficiency where more frequent long-distance bonding is a significant part of their writing.

Further investigation would need to be done to see whether the cause lies in the instruction in the high schools, the Freshman English course or in the holistic evaluation of the Freshman English texts; (all the latter in relation to cohesion and lexical cohesion in particular) or whether a higher mean percent of bonding distance than that found in the present essays is necessary to indicate a significant relationship with high rated texts.

General Discussion on the First Two Parts of the First Research Question

The results, thus far, indicate that neither the mean percent frequency of bonds nor the mean distance of bonds are related to the level of both diagnostic 1 and 2 texts when

correlated with the holistic HT and LT scores. Further studies need to be carried out to determine the cause. However, to the researcher's knowledge, cohesion, and specifically lexical cohesion, in any form is not taught in the high schools nor in the Freshman English course and neither is cohesion specifically evaluated in the holistic ratings.

However, the results are similar to the findings by researchers in the field (see Chapter Five) which show that there is no significant correlation between cohesion and quality of writing. It seems that although cohesive characteristics are found in good writing, they are not a necessary requirement.

C. Relation between Frequency of Type of Link and Text Level

This section will report on the results of the two null hypotheses generated from the first research question concerning the correlation between the **third** type of lexical cohesion criterion (the frequency of type of link in the texts) and the holistic ratings of the texts in both Diagnostic 1 and 2 texts. For convenience of reference, the first research question and its operational description is repeated below.

First Research Question:

Is lexical cohesion an indicator of (related to) writing proficiency in the expository EFL texts in the Freshman English I course?

The **third** operational description of lexical cohesion is: **The frequency of the type of links** as outlined in the thirteen types listed hereunder (and detailed in Chapter Seven). *The raw frequency of each of the 13 types of links is expressed as a percentage of the total number of links in the text.*

Textual Link Types (In order of importance in EFL Texts)

a) CP1   complex paraphrase type 1
b) CP2   complex paraphrase type 2
c) CP3   complex paraphrase type 3
d) SPP   simple partial paraphrase
e) SMP1   simple mutual paraphrase type 1
f) SMP2   simple mutual paraphrase type 2
g) CR1   complex repetition type 1
h) CR2   complex repetition type 2
i) CR3   complex repetition type 3
j) SR   simple repetition
k) COR   co-reference

Grammatical Link Types (In order of importance in EFL Texts)
l) D   deixis
m) S   substitution

The null hypotheses 9 and 10 Concerning Diagnostic 1 Texts are given below.

1. In D1 HT and LT - Null Hypothesis 9

There is no statistically significant relation between the percent *frequency of type of links* (as described by the criteria based on Hoey's(1991a) lexical cohesive categories and adapted in this study and expressed as a percentage of the total number of links in a given text) and *high and low* holistically rated EFL texts in the Freshman English I course in *Diagnostic 1* texts.

2. In D2 HT and LT - Null Hypothesis 10

There is no statistically significant relation between the percent *frequency of type of links* (as described by the criteria based on Hoey's (1991a) lexical cohesive categories and adapted in this study and expressed as a percentage of the total number of links in a given text) and *high and low* holistically rated EFL texts in the Freshman English I course in *Diagnostic 2* texts.

The Spearman rank correlation coefficient statistical procedure was carried out separately between the 20 **Diagnostic 1** holistic scores of the high rated texts (**HT**) and the 20 diagnostic 1 holistic scores of the low rated texts (**LT**) and the mean percent frequency of the type of links. The results in Table 9.5 showed significant (p=<.05) correlations between frequency of type of links and holistic scores in the **HT** for **SPP** ($p=.4896$; p=.028) and in the **LT** for **SMP1** ($p=.5435$; p=.013).

Thus the null hypothesis 9 is rejected. (In the present study, it is sufficient for a minimum of one variable in a group of variables to indicate a significant result to reject the null hypothesis (Becket, John, Computer Center, University of Leicester, Personal communication, September, 1996).

Discussion

The significant correlation in the HT between the holistic scores and the SPP indicates that high rated texts have a more sophisticated use of one type of lexical item. Since SPP needs a knowledge of which two contexts a lexical item can be used over the other, this is an indicator of higher writing ability, e.g. *volume* vs. *book* (Hoey, 1991a) being used synonymously depends upon the context which needs a finer perception of the possibility of the interchangeability of these two items in any two contexts. On the other hand, the significant correlation in the LT between the holistic scores and the SMP1 indicates a lesser sophisticated knowledge of interchangeability lexical items as a simple case of synonyms shows, e.g. *angry* being synonymous with *mad*. Although two types of lexical cohesion are a small proportion

of the thirteen analyzed, they did indicate clearly the proficiency levels associated with each one as regards EFL priority.

Table 9.5 Spearman Correlation Coefficients and Significance Levels between Type of Link and Holistic Scores in D1 HT and LT

Type of Link	HT		LT	
	ρ	p	ρ	p
1. CP1	-.0347	.884	.1597	.501
2. CP2	-.0761	.750	.	.
3. CP3	.	.	.	.
4. SPP	.4896	.028*	.2184	.355
5. SMP1	.1270	.594	.5435	.013*
6. SMP2	-.1581	.506	.2092	.376
7. CR1	-.1330	.576	-.0324	.892
8. CR2	.1773	.455	.0178	.941
9. CR3	.0450	.851	.	.
10. SR	-.4104	.072	-.1599	.501
11. COR	.	.	.	.
12. D	.3710	.107	.3977	.082
13. S	.1870	.430	-.1751	.460

. No frequencies were available

Again the Spearman rank correlation coefficient statistical procedure was carried out between the 14 Diagnostic 2 holistic scores of the high rated texts (HT), the 11 Diagnostic 2 holistic scores of the low rated texts (LT) and the 15 Diagnostic 2 holistic scores of the mid rated texts (MT) and the mean percent frequency of type of links. The results in Table 9.6 showed significant correlations (p=<.05) between frequency of type of links and holistic scores in the HT for **CR3** (p=.6135; p=.020) in the LT for **CR1** (p=.6221; p=.055) and in the MT for **CR2** (p=.5872; p =.021).

Discussion

The significant relations found between CR3 and CR1 with the HT and LT in D2 respectively suggest that lexical cohesion as identified by CR3 is a significant indicator of writing quality.

Thus, the null hypothesis 10 is rejected.

Table 9. 6 Spearman Correlation Coefficients and Significance Levels between Type of Link and Holistic Scores in D2 HT, LT & MT

Type of Link	HT		LT		MT	
	ρ	p	ρ	p	ρ	p
1. CP1	.3312	.247	.2806	.432	.1490	.596
2. CP2	.1539	.599	.	.	.	.
3. CP3	.1385	.637	.	.	.0000	1.000
4. SPP	.3479	.223	.3639	.301	-.2124	.447
5. SMP1	.0443	.880	.5744	.082	-.0038	.989
6. SMP2	.4502	.106	.5425	.105	.0935	.740
7. CR1	.0730	.804	.6221	.055*	.4050	.134
8. CR2	-.0921	.754	-.1487	.682	.5872	.021*
9. CR3	.6135	.020*	.0136	.970	-.0973	.730
10. SR	.0332	.910	-.2661	.457	-.1169	.678
11. COR	.	.	.	.	.	.
12. D	-.0676	.819	-.0159	.965	-.4101	.129
13. S	-.2489	.391	-.1207	.740		

. No frequencies were available

General Discussion

The general results from the correlations show that lexical cohesion as measured by the frequency of bonds and the bond distance are not related to writing quality. However, it was found that the type of lexical cohesion is significantly related to writing quality.

Finding 1) confirms previous research where no significant correlations between frequency counts of cohesive items and writing quality (holistically defined) were found. Finding 2) suggests that connecting ideas over larger stretches of texts rather than at shorter distances may be regarded in EFL as a positive characteristic for higher quality writing, but the results suggest that it is not a necessary requirement and perhaps not the only positive characteristic. It will be interesting, however, to note if there are any significant differences between the HT and LT on this variable (see second research question). Finding 3) suggests that the type of lexical connection among sentences is significantly related to writing quality in D1. The relations in D2 texts indicate that CR3 is related to writing quality. This leaves strong implications for the teaching/learning situation which will be discussed in the concluding chapter.

II. Second Research Question

Are there differences in frequency of lexical cohesion in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

Lexical cohesion is described operationally as the frequency of bonds expressed as a percentage of the total number of cells in the texts.

The second related research question generated 5 null hypotheses 11 (1-3) [Section A. below] and 12 (1-2) [Section B. below). Null Hypothesis 11.1, 11.2, and 11.3 are reported next.

A. Between HT and LT When 2 and 3 Links Equal One Bond - Null Hypotheses 11.1, 11.2, and 11.3.

There will be no statistically significant differences in frequency of lexical cohesion as identified by the *frequency of bonds* and expressed as a percentage of the total number of cells in a given text for 1) two links equal one bond and 2) three links equal one bond between holistically rated EFL texts of *high* and *low* writing proficiency levels in 1) *Diagnostic 1* texts NH 11.1), 2) *Diagnostic 2* texts (NH 11.2) and 3) *between Diagnostic 1* and *Diagnostic 2* texts (NH 11.3).

1. Between D1 HT and LT When 2 and 3 Links Equal One Bond - NH 11.1

The results in Tables 9.7 and 9.8 indicate that the HT had the higher mean frequency of bonds when two and three links equal one bond, but when the mean percent frequency of bonds were considered, the differences with the LT were not significant when the Mann Whitney statistical test was applied, where the critical z score at a significance level of .05 and .01 is 1.96 and 2.57 respectively for a two-tailed test -negative or positive (Hatch, 1991, p. 594).

Thus, the null hypothesis 11.1 is accepted.

Table 9.7   Mean Percent Frequency of Bonds in D1 Texts

Texts	Mean	St. Dev.
Frequency of Bonds		
Two links = 1 Bond		
HT	56	25
LT	27	19
Three links = 1 Bond		
HT	15	11
LT	6	8
Percent Frequency of Bonds		
Two Links = 1 Bond		
HT	17.09	11.33
LT	18.23	11.62
Three Links = 1 Bond		
HT	4.97	5.37
LT	4.70	6.74

Table 9.8 **Significant Differences between D1 HT & LT in Percent Frequency of Bonds**

Texts	Z	2 Tail P.
Two Links = 1 Bond		
HT with LT	-.5140	.6073
Three Links = 1 Bond		
HT with LT	-.8800	.3788

2. Between D2 HT and LT When 2 and 3 Links Equal One Bond - NH 11.2

The results in Tables 9.9 and 9.10 indicate that the LT had the highest mean percent bonds in the text, but there were no significant differences between 1) HT and LT, 2) HT and MT, and 3) MT and LT when the Mann-Whitney Statistical Test was applied separately to each of the mentioned three groups. A Kruskal-Wallis 1-Way Anova also showed no significant differences among the three text levels for 1) two links = 1 bond (z=4.0445; p=.1324) and 2) three links = 1 bond (z=2.8638; p=.2389). Since the Kruskal-Wallis 1-Way Anova statistical test confirmed the obtained results, and since more rigorous testing is needed with three groups, the results of this testing is not necessary and, therefore, will not be included in the presentation of further results.

Thus, the null hypothesis 11.2 is accepted.

Table 9.9 **Mean Percent Frequency of Bonds in HT, LT, & MT in D2 Texts**

Texts	Mean	St. Dev.
Frequency of Bonds		
Two links = 1 Bond		
HT	66	41
MT	35	29¹
LT	37	27
Three links = 1 Bond		
HT	11	8
MT	7	8
LT	9	9
Percent Frequency of Bonds		
Two Links = 1 Bond		
HT	19.61	17.94
MT	13.98	9.16
LT	24.58	15.53
Three Links = 1 Bond		
HT	2.92	1.93
MT	4.22	5.28
LT	6.64	6.27

Table 9.10 Significant Differences between D2 Texts By Level Using the Mann-Whitney Statistical Procedure

Texts	Z	2 Tail P.
Two Links = 1 Bond		
HT with LT	- .9954	.3195
HT with MT	-1.0474	.2949
MT with LT	-1.9141	.0556
Three Links = 1 Bond		
HT with LT	-1.7566	.0790
HT with MT	- .1309	.8958
MT with LT	-1.2206	.2222

3. Between D1 and D2 HT and LT When 2 and 3 Links Equal One Bond - NH 11.3

The results in Table 9.11 indicate that the mean percent frequency of bonds (when 2 links and 3 links equal 1 bond) decreased from Diagnostic 1 to Diagnostic 2 in the HT (from 17.09 to 16.80; from 4.97 to 2.59 respectively) but increased in the LT (from 18.23 to 20.36; 4.70 to 6.26 respectively). Table 9.12 indicates that the increases in the LT were highly significant ($p<.01$) for both two and three links equal bond and the decrease in the HT were very highly significant when three links equal one bond ($p<.001$) and significant ($p<.05$) when two links equal one bond were considered using the Wilcoxon Matched-Pairs Signed-Ranks Test. Table 9.11 also includes figures from Tables 9.7 and 9.13 concerning D1 Texts for an overview of the results.

Thus, the null hypothesis 11.3 is rejected.

Table 9.11 Differences in Percent Frequency of Bonds by Level and Study Language at the Same Level in D1 and between D1 & D2+

Texts	Mean		Std. Deviation	
	HT	LT	HT	LT
Frequency of Bonds				
Two Links = 1 Bond				
Diagnostic 1	56	27	25	19
ET	60	18	26	10
FT	52	29	24	21
Diagnostic 2	57	36	39	28
ET	65	27	47	25
FT	46	38	26	30
Three Links = 1 Bond				
Diagnostic 1	15	6	11	8
ET	14	2	11	2
FT	15	7	12	9
Diagnostic 2	10	9	8	9
ET	11	5	9	4
FT	8	10	5	10
Percent Frequency of Bonds				

Two Links = 1 Bond				
Diagnostic 1	17.09	18.23	11.33	11.62
ET	15.97	11.16	10.36	7.54
FT	18.45	20.49	12.93	11.97
Diagnostic 2	16.80	20.36	15.01	13.82
ET	13.45	11.45	8.82	6.01
FT	20.90	23.33	20.09	14.53
Three Links = 1 Bond				
Diagnostic 1	4.97	4.70	5.37	6.74
ET	3.77	1.54	2.96	1.54
FT	6.44	5.75	7.29	7.49
Diagnostic 2	2.59	6.26	1.80	6.16
ET	2.19	2.56	1.68	1.10
FT	3.07	7.50	1.93	6.68

+ Diagnostic 2 results are reported according to D1 variables of quanitity of texts, level of text and study language at the same level.

Table 9.12 Significance in Percent Frequency of Bonds between D1 and D2 By Level Using the Wilcoxon Matched Pairs Rank Sums Statistical Test

Texts	Z	2 Tail P.
Two Links = 1 bond		
High Texts	-2.1653	.0304*
Low Texts	-2.8373	.0045**
Three Links = 1 Bond		
High Texts	-3.7333	.0002***
Low Texts	-3.0182	.0025**

Discussion

Although causal claims cannot be made with any degree of certainty, a possible explanation for why the HT did not improve in mean percent of bonds over the semester is probably due to the lack of seriousness of the higher proficiency students towards the English course in which, as they said (see Chapter Eleven), there was not really anything new or challenging for them. Another possibility is that the LT probably improved by default. The fact that there is not any significant difference on Diagnostic 2 between the HT and LT in mean percent number of bonds again may be the result of the HT not improving significantly and the LT improving significantly so that the mean percent of bonds were closer.

If the present results in the HT and LT of students at the Freshman level studying English as a foreign language in percentage of bonds when three links equal one bond are compared to Hoey's (1991a) results when he analyzed the Political Text, there is a difference. In the Political Text, Hoey (1991a, p.91) found 33 percent of the sentences bonded with two links and above equal one bond (with 17 pairs of sentences bonded with 3 links equal one bond); while in the present study, there is a mean percent of 19.88 bonds (taking the mean of

Diagnostics 1 and 2 HT and LT results - see Tables 9.7, 9.9) when two links equal one bond and a mean percent of 4.79 bonds (taking the mean of Diagnostics 1 and 2 HT and LT results - see Tables 9.7, 9.9) when three links equal one bond. It seems that for this type of student text, the threshold of bonded sentences is one link equals one bond (compared to Hoey's suggested threshold for the texts he analyzed as three links equal one bond). However, considering one link equals one bond would account for almost all the links in the student texts which seems to be too low a threshold of required links to equal a bond to be meaningful. This finding confirms that the student texts at both levels of proficiency are still 'basic' texts when compared to the texts analyzed by Hoey (1991a).

B. Differences in Frequency of Bonds by Study Languages at the Same Text Level- Null Hypotheses 12.1 and 12.2

There will be no statistically significant differences in frequency of lexical cohesion as identified by the *frequency of bonds* and expressed as a percentage of the total number of cells in a given text for 1) two links equal one bond and 2) three links equal one bond between the texts written by the *English educated* students and the texts written by the *French educated* students at the *same level* of writing proficiency in 1) *Diagnostic 1* texts (NH 12.1) and 2) *Diagnostic 2* texts (NH 12.2).

1. Between Study Languages in D1 HT and LT When 2 and 3 Links Equal One Bond - Null Hypothesis 12.1

The results in Tables 9.13 and 9.14 indicate that the FHT and the FLT had the higher mean percent of bonds in the texts, but there were no significant differences when the study languages were compared at the same level when 1) two links equal one bond and 2) when three links equal one bond using the Mann-Whitney Statistical Test.

Thus, the null hypothesis 12.1 is accepted.

Table 9.13 Mean Percent of Bonds in D1 HT and LT by Study Language at the Same Level

Texts	Mean	St. Dev.
Frequency of Bonds		
Two Links = 1 Bond		
EHT	60	26
FHT	52	24
ELT	18	10
FLT	29	21
Three Links = 1 Bond		
EHT	14	11
FHT	15	12
ELT	2	2
FLT	7	9

Percent Frequency of Bonds		
Two Links = 1 Bond		
EHT	15.97	10.36
FHT	18.45	12.93
ELT	11.16	7.54
FLT	20.49	11.97
Three Links = 1 Bond		
EHT	3.77	2.96
FHT	6.44	7.29
ELT	1.54	1.54
FLT	5.75	7.49

Table 9.14   Significant Differences in Percent Frequency of Bonds between Study Language at the Same Level in D1 Texts Using the Mann-Whitney Statistical Test

Texts	Z	2 Tail P.
Two Links = 1 Bond		
EHT with FHT	- .4179	.6761
ELT with FLT	-1.7021	.0887
Three Links = 1 Bond		
EHT with FHT	- .1522	.8790
ELT with ELT	-1.1833	.2367

2. Between Study Languages in D2 HT and LT When 2 and 3 Links Equal One Bond - NH 12.2

The results in Tables 9.15 and 9.16 indicate that the FT in all texts had the highest mean percent bonds in the texts, but there were no significant differences when the two study languages were compared at the same level when 1) two links equal one bond and 2) three links equal one bond (although EMT by FMT when 3 links equal one bond is nearly significant.)

Thus the null hypothesis 12.2 is accepted.

Table 9.15   Mean Percent Frequency of Bonds in D2 Texts by Study Language at the Same Level

Texts	Mean	St. Dev.
Frequency of Bonds		
Two Links = 1 Bond		
EHT	75	47
FHT	54	29
EMT	33	32
FMT	35	29
ELT	30	33
FLT	39	27

Three Links = 1 Bond		
EHT	13	10
FHT	9	5
EMT	5	6
FMT	8	9
ELT	6	6
FLT	10	10
Percent Frequency of Bonds		
Two Links = 1 Bond		
EHT	15.30	9.40
FHT	25.37	25.37
EMT	7.98	4.27
FMT	16.99	9.61
ELT	14.26	6.04
FLT	28.45	16.48
Three Links = 1 Bond		
EHT	2.52	1.72
FHT	3.45	2.23
EMT	1.49	1.16
FMT	5.58	6.04
ELT	3.09	.99
FLT	7.97	6.96

**Table 9.16   Significant Differences in Frequency of Bonds in D2
Texts by Study Language at the Same Level**

	Z	2 Tail P.
Two Links = 1 Bond		
EHT with FHT	-1.1619	.2453
EMT with FMT	-1.7146	.0864
ELT with FLT	-1.4815	.1385
Three Links = 1 Bond		
EHT with FHT	- .6455	.5186
EMT with FMT	-1.9001	.0574
ELT with ELT	-1.2536	.2100

General Discussion

There are no significant differences in percent frequency of bonds between HT and LT in both D1 and D2, but there is a significant difference in HT and LT between D1 and D2 texts, the HT significantly decreasing and the LT significantly increasing in the D2 texts compared to the D1 texts. *Thus the null hypotheses 11.1, 11.2 are accepted and the null hypothesis 11.3 is rejected.*

There are no significant differences in any of the texts D1, D2 or between D1 and D2 when study languages were compared at the same level. *Thus null hypotheses 12.1 and 12.2 are accepted.*

These findings seem to suggest, as was noted earlier, that both levels of writers are still 'basic' since there are no significant differences in frequency of bonds (when two and three links equal one bond) between text levels (as indicated by the holistic scores). When both two and three links equal one bond were considered, both text levels did not reach the 1/3 of bonded sentences that was achieved in the texts that Hoey (1991a) analyzed which provides confirmation that the texts are not mature products. However, more research needs to be carried out in comparing maturer EFL essay products on topics and rhetorical modes with ones similar in this study.

III. Third Research Question

Are there differences in the distance of lexical cohesion in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

The operational description of the distance of lexical cohesion is the number intervening sentences between bonded pairs of sentences expressed as a bond distance indicator (see Chapter Seven on how it was calculated).

The third research question generated 5 null hypotheses 13 (1-3) (Section A. below) and 14 (1-2) (Section B. below)

A. Differences in Distance of Bonds by Text Level - Null Hypotheses 13.1, 13.2, 13.3

There will be no statistically significant differences in *distance of lexical cohesion* as measured by the frequency of intervening sentences between bonds and expressed as a bond distance indicator for 1) two links equal one bond and 2) three links equal one bond between holistically rated EFL texts of *high* and *low* writing proficiency levels in 1) *Diagnostic 1* texts (NH 13.1), 2) *Diagnostic 2* texts (NH 13.2) and 3) *between Diagnostic 1* and *Diagnostic 2* texts (NH 13.3).

1. Between D1 HT and LT When 2 and 3 Links Equal One Bond - NH - 13.1

The results in Table 9.17 indicate that the HT had the highest mean distance (as measured by the frequency of intervening sentences between bonded sentences and expressed as a mean bond distance indicator) in both Diagnostic 1 and Diagnostic 2 texts when two links and three links equal one bond.

The results in Table 9.18 indicate that the differences were very highly significant (p<.001) in the Diagnostic 1 texts when the Mann Whitney statistical test was carried out when two links equal 1 bond (p=.0007) and highly significant (p<.01) when three links equal 1 bond (p=.0018). The differences were not significant in the Diagnostic 2 texts.

Thus, the null hypothesis 13.1 is rejected and the null hypothesis 13.2 is accepted.

Table 9.17   Bond Distance between Pairs of Bonded Sentences - By Level and Study Language at the Same Level in D1 and D2+

Texts	Mean			Std. Deviation		
	HT	MT	LT	HT	MT	LT
Two Links = 1 Bond						
Diagnostic 1 (N=20)	15.83		6.62	8.35		5.75
ET	17.93		4.81	9.45		2.98
FT	13.27		7.22	6.37		6.38
Diagnostic 2 (N=20)+	16.57		10.39	13.07		9.13
Diagnostic 2	19.62	10.09	10.29	13.74	9.44	8.37
ET	22.32	9.86	9.96	16.85	10.26	9.76
FT	16.03	10.21	10.41	8.14	9.57	8.53
Three Links = 1 Bond						
Diagnostic 1 (N=20)	4.07		1.55	2.91		2.45
ET	4.07		.51	3.17		.48
FT	4.08		1.89	2.77		2.76
Diagnostic 2 (N=20)+	2.91		2.64	2.73		3.08
Diagnostic 2	3.47	2.21	2.67	3.03	2.98	2.59
ET	3.92	1.24	2.20	3.73	1.38	1.66
FT	2.86	2.69	2.84	1.90	3.49	2.94

+ The D2 results are reported according to D1 variables of quantity of texts, text level and study language.

Table 9.18   Significant Differences between Text Levels in Mean Bond Distance between Pairs of Bonded Sentences in D1 and D2 Using the Mann-Whitney Statistical Test

Texts	Z	2 Tail P.
Two Links = 1 bond		
Diagnostic 1-HT & LT	-3.3813	.0007***
Diagnostic 2-HT & LT	-1.6395	.1011
HT & MT	-2.1170	.0343*
MT & LT	- .4161	.6773
Three Links = 1 Bond		
Diagnostic 1-HT & LT	-3.1277	.0018**
Diagnostic 2-HT & LT	- .7612	.4465
HT & MT	-1.3313	.1831
MT & LT	- .9988	.3179

2. Between D2 HT and LT When 2 and 3 Links Equal One Bond - NH - 13.2

(See Section III.A.1.earlier)

3. Between D1 and D2 HT and LT When 2 and 3 Links Equal One Bond - NH 13.3

The results in Table 9.17 further indicate that when two and three links equal one bond, the LT had a greater increase in mean distance between pairs of bonded sentences from Diagnostic 1 to Diagnostic 2 texts than the HT indicated. In fact, the HT decreased in mean distance between pairs of bonded sentences when three links equal one bond were considered. The Wilcoxon Matched-Pairs Signed-Ranks Statistical Procedure was used to test for any significant differences when D2 was compared to D1 texts.

The results in Table 9.19 indicate that there were very highly significant (p=<.001) increases in the distance of bonds in the LT in Diagnostic 2 texts (19 out of the 20 low texts had higher distances in Diagnostic 2 texts when two links equal one bond and 18 out of the 20 low texts had higher distances in Diagnostic 2 texts when three links equal one bond were considered).

The results in Table 9.19 also show that there was a very highly significant (p=<.001) decrease in the distance of bonds in the HT when three links equal one bond were considered, but the Diagnostic 1 texts had the higher mean distance between bonds (18 out of the 20 high texts had lower mean ranks in Diagnostic 2). No significant differences were found in the HT when two links equal one bond were considered (11 out of the 20 high texts had lower mean ranks in Diagnostic 2.

Thus, the null hypothesis 13.3 is rejected.

Table 9.19 Significant Differences between Text Levels in Bond Distance between Bonded Pairs of Sentences between D1 and D2 Using the Wilcoxon Matched-Pairs Signed-Ranks Statistical Procedure

Texts	Z	2 Tail P.
Two Links = 1 bond		
High Texts	- .5227	.6012
Low Texts	-3.8826	.0001***
Three Links = 1 Bond		
High Texts	-3.3599	.0008***
Low Texts	-3.7236	.0002***

General Discussion

The HT in general show a higher bond distance (as indicated by the frequency of intervening sentences between pairs of bonded sentences and expressed as a bond indicator) of bonding over the text than that of the LT, but it was only significant in the D1 texts. The ability to bond sentences over larger stretches of text rather than more locally at the sentence level is clearly an ability of a more proficient writer which the HT indicated in both D1 and D2 but significantly on the D1. Again, although no causal claims can be made as to why the HT

decreased significantly and the LT increased significantly on D2, it could be suggested that the students of the HT had probably reached a certain threshold or plateau of writing quality (or believed they had done so), while the students of the LT, by definition, still had room for improvement. Also, the Freshman English I course did not really cater to challenging the higher proficient students to improve in such areas as connecting ideas over text in using cohesive devices at a discourse level., the course being more geared to the average or low proficient student. For the high proficient students it is, perhaps, enough to pass the course without further improvement. The interview comments of the high proficient students reinforce this result in that they expressed that the Freshman English I course was not challenging enough for them (see Chapter Eleven).

As was mentioned earlier in Chapter Eight, a different research design with more rigorous testing is needed including a random sample of experimental and control groups with some material on lexical cohesion being taught to the experimental groups over a specified period of time in order to determine the cause of any significant decrease or increase in use of lexical cohesion as outlined in the present research. The results concerning the comparison between D1 and D2 are only descriptive and preliminary.

B. Differences in Distance of Bonds by Study Language at the Same Text Level - Null Hypotheses 14.1 and 14.2

There will be no statistically significant differences in *distance of lexical cohesion* as measured by the frequency intervening sentences between bonds and as expressed as a bond distance indicator for 1) two links equal one bond and 2) three links equal one bond between the texts written by the *English educated* students and the texts written by the *French educated* students at the *same level* of writing proficiency in 1) *Diagnostic 1* texts (NH 14.1) and 2) *Diagnostic 2* texts (NH 14.2).

1. Between Study Languages in D1 HT and LT When 2 and 3 Links Equal One Bond - NH 14.1

The results for Diagnostic 1 and 2 in Table 9.17 indicate that the EHT contained the highest mean bond distance when two and three links equal one bond except on Diagnostic 2 (when two links equal one bond) where the ET and FT had the same mean bond distance. The Mann Whitney statistical test was carried out to check for any significant differences between study languages at the same level. The results in Table 9.20 show that there are no significant differences at the same level between study languages in the distance of bonds (as measured by frequency of intervening sentences and expressed as a bond indicator) when two and three links equal one bond.

Table 9.20   **Significant Differences between Study Languages at the Same Level in Bond Distance between Pairs of Bonded Sentences in D1 and D2 Using the Mann-Whitney Statistical Test**

Texts	Z	2 Tail P.
Diagnostic 1		
Two Links = 1 Bond		
EHT with FHT	-1.3295	.1837
ELT with FLT	- .3928	.6945
Three Links = 1 Bond		
EHT with FHT	.0000	1.0000
ELT with FLT	- .6574	.5109
Diagnostic 2		
Two Links = 1 Bond		
EHT with FHT	- .5164	.6056
EMT with FMT	- .2449	.8065
ELT with ELT	- .3419	.7324
Three Links = 1 Bond		
EHT with FHT	- .1291	.8973
EMT with FMT	- .9798	.3272
ELT with ELT	- .1140	.9093

2. Between Study Languages in D2 HT and LT When 2 and 3 Links Equal One Bond - NH 14.2

(See Section III. B. 1 earlier)

Thus, the null hypotheses 14.1 and 14.2 are accepted.

Although the results indicated no significant differences, the English educated students in the HT were more proficient in bonding over longer stretches of texts.

IV. Fourth Research Question

Are there differences in frequency of *types of lexical cohesion* in a) the whole text and b) in adjacent sentences in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

The operational description of lexical cohesion is: The frequency of the type of links as outlined in the 13 types listed hereunder (and detailed in Chapter Seven).   The raw frequency of each of the 13 types of links is expressed as a percentage of the total number of links in the text.

Textual Link Types (In order of importance in EFL Texts)

a) CP1   complex paraphrase type 1
b) CP2   complex paraphrase type 2
c) CP3   complex paraphrase type 3
d) SPP   simple partial paraphrase
e) SMP1   simple mutual paraphrase type 1
f) SMP2   simple mutual paraphrase type 2
g) CR1   complex repetition type 1
h) CR2   complex repetition type 2
i) CR3   complex repetition type 3
j) SR   simple repetition
k) COR   co-reference

Grammatical Link Types (In order of importance in EFL Texts)
l) D   deixis
m) S   substitution

The **fourth** research question generated nine null hypotheses 15 (1-3) (Section A.1.2.3.below), 16 (1-2) (Section A.4.5.below), 17 (1-2) (Section B.1.2. below) and 18 (1-2) (Section B.3.4. below).

A. Frequency of Type of Lexical Cohesion in Texts as a Whole - Null Hypotheses 15.1, 15.2, 15.3

There will be no statistically significant differences in *frequency of type of lexical cohesion links* as identified by the criteria adapted on Hoey's (1991a) lexical cohesion categories and holistically rated EFL texts of *high* and *low* writing proficiency levels and expressed as a percentage of the total number of links in a given text in 1) *Diagnostic 1* texts (NH 15.1), 2) *Diagnostic 2* texts (NH 15.2) and 3) *between Diagnostic 1* and *Diagnostic 2* texts (15.3).

1. By Text Level in D1 - NH 15.1

The results in Table 9.21 indicate that the simple repetition (SR) comprised approximately a little over a two third mean percent of all the lexical links (as outlined in the criteria) in all the texts in both Diagnostic 1 and 2 (the LT having the higher mean percent in all cases) with the remaining types of links having very low mean percents in comparison.

The results in Table 9.22 indicate that when the HT were compared with the LT in D1 using the Mann Whitney statistical test, the HT had higher percent frequencies in CP1, SMP1, and CR2 which were highly significant. Although not significant, there was a strong trend towards a higher significant difference in SPP in the HT (p=.0550). The LT had a higher mean percent of S which was on the edge of being significant (p=.0545).

Thus, the null hypothesis 15.1 was rejected.

Table 9.21 Mean Percent* Frequency of Type of Lexical Cohesion Links by Level in D1 and D2

Texts	Mean			Std. Deviation		
	HT	MT	LT	HT	MT	LT
Diagnostic 1						
CP1	.87		.06	2.67		.27
CP2	.18		.00	.73		.00
CP3	.00		.00	.00		.00
SPP	.74		.29	1.20		.89
SMP1	3.04		1.12	3.63		2.60
SMP2	.1		.20	.37		.81
CR1	5.46		7.25	6.53		5.40
CR2	5.98		.86	7.60		2.24
CR3	.17		.00	.52		.00
SR	76.78		76.81	9.45		11.01
COR	.00		.00	.00		.00
D	2.13		1.91	1.81		1.79
S	6.81		11.52	5.80		8.78
Diagnostic 2						
CP1	.22	.07	.33	.43	.18	.55
CP2	.17	.00	.00	.44	.00	.00
CP3	.30	.04	.00	1.13	.15	.00
SPP	.49	1.58	.13	.62	3.22	.33
SMP1	2.17	2.72	1.52	2.34	5.57	1.97
SMP2	.03	.08	.21	.09	.32	.55
CR1	5.44	7.26	3.41	3.65	9.39	4.11
CR2	3.91	5.45	2.62	5.21	7.59	3.93
CR3	.08	.11	1.01	.21	.30	2.37
SR	76.15	74.62	83.57	21.63	12.72	11.80
COR	.00	.00	.00	.00	.00	.00
D	1.35	2.00	1.55	1.29	1.83	1.44
S	4.50	8.28	5.64	5.02	9.96	6.82

Diagnostic 1   Diagnostic 2   * Calculated on the basis
HT : N=20   N=14   of the total number of
MT: N=20   N=15   links in the text
LT: N=20   N=11

Table 9.22 Significant Differences in Percent Frequency of Type of Links between HT and LT in D1 Texts Using the Mann Whitney Statistical Procedure

Diagnostic 1	Z	2 Tail P.
HT with LT		
CP1	-2.9908	.0028**
CP2	-1.4322	.1521
CP3	.0000	1.0000
SPP	-1.9186	.0550*
SMP1	-3.0569	.0022*
SMP2	.0000	1.0000
CR1	-1.3526	.1762

CR2	-4.0569	.0000***
CR3	-1.4322	.1521
SR	- .3517	.7251
COR	.0000	1.0000
D	- .5686	.5696
S	-1.9225	.0545*

2. By Text Level in D2 - NH 15.2

Although the results in Table 9.23 indicate that in D2 texts the HT had higher mean frequencies of CP2, CP3, SPP, SMP1, CR1, and CR2, there were no significant differences between HT and LT when the Mann-Whitney statistical procedure was applied except for the SPP which was on the edge of being significant (p=.0581). See also section 1. above.

Thus, the null hypothesis 15.2 is accepted.

Table 9.23   Significant Differences in Percent Frequency of Type of Links between HTand LT in D2 Using the Mann-Whitney Statistical Procedure

Diagnostic 2	HT with LT		HT with MT		MT with LT	
	Z	2 Tail P	Z	2 Tail P	Z	2 Tail P
CP1	- .0729	.9419	-1.1093	.2673	- .7704	.4411
CP2	-1.5279	.1265	-1.8572	.0633	- .8165	.4142
CP3	- .8452	.3980	- .0993	.9209	- .2357	.8137
SPP	-1.8953	.0581*	- .3088	.7575	-1.3324	.1827
SMP1	-1.3869	.1655	-1.2571	.2087	- .9171	.3591
SMP2	-1.0186	.3084	.0000	1.0000	-1.1785	.2386
CR1	-1.4065	.1596	- .2182	.8272	- .7781	.4365
CR2	- .3694	.7118	- .0463	.9631	- .1196	.9048
CR3	- .5410	.5885	.0000	1.0000	- .0794	.9367
SR	- .5855	.5582	- .9165	.3594	- .6102	.5417
COR	.0000	1.0000	.0000	1.0000	.0000	1.0000
D	- .3815	.7028	- .9170	.3592	- .5272	.5981
S	- .5293	.5966	- .8111	.4173	- .8894	.3738

Discussion

The HT indicating a significant higher frequency of CPI, SMP1, and CR2 in comparison with the LT shows that the higher proficient writers have the ability to use more sophisticated lexical items as identified by EFL methodology. This also confirms research in the field (see Chapter Five). Although no causal claims can be made concerning the fact that there were no significant differences between the two levels in Diagnostic 2 texts, one could probably attribute this to the LT either increasing in mean percent frequency of types of lexical of cohesive items (narrowing the gap between LT and HT) or the HT decreasing (which would also narrow the gap).

3. By Text Level Between D1 and D2 - NH 15.3

The results in Tables 9.24 and 9.25 indicating the mean percent frequency of types of links and any significant differences between D1 and D2 in the HT and LT respectively are summarized in Table 9.26 which appears immediately following with an interpretation and discussion of the results.

Table 9.24   **Mean Percent Frequency of Types of Links between D1 and D2 by Level**

Texts	Mean		Std. Deviation	
	HT	LT	HT	LT
Diagnostic 1				
CP1	.87	.06	2.67	.27
CP2	.18	.00	.73	.00
CP3	.00	.00	.00	.00
SPP	.74	.29	1.20	.89
SMP1	3.04	1.12	3.63	2.60
SMP2	.1	.20	.37	.81
CR1	5.46	7.25	6.53	5.40
CR2	5.98	.86	7.60	2.24
CR3	.17	.00	.52	.00
SR	76.78	76.81	9.45	11.01
COR	.00	.00	.00	.00
D	2.13	1.91	1.81	1.79
S	6.81	11.52	5.80	8.78
Diagnostic 2				
CP1	.26	.13	.43	.38
CP2	.12	.00	.37	.00
CP3	.24	.00	.95	.00
SPP	.60	.99	1.01	2.77
SMP1	2.02	2.38	2.30	4.88
SMP2	.02	.18	.08	.48
CR1	6.08	5.05	7.42	5.68
CR2	5.30	2.97	6.58	5.08
CR3	.08	.61	.21	1.79
SR	77.49	77.75	18.86	13.64
COR	.00	.00	.00	.00
D	1.34	1.97	1.16	1.81
S	4.00	8.46	4.85	9.30

Diagnostic 1   Diagnostic 2
HT :   N =20   N = 20
LT :   N =20   N = 20

Table 9.25   Significant Differences in Percent Frequency of Type of Links Between D1 and 2 HT and LT Using the Wilcoxon Matched-Pairs Signed-Ranks Test

D1 with D2	HT		LT	
	Z	2 Tail P.	Z	2 Tail P.
CP1	-2.3444	.0191*	-1.6036	.1088
CP2	.0000	1.0000	.0000	1.0000 x
CP3	-1.3416	.1797	.0000	1.0000 x
SPP	- .7701	.4413	-1.8257	.0679
SMP1	-3.7236	.0002***	-2.9341	.0033++
SMP2	-1.3416	.1797	.0000	1.0000
CR1	-2.2960	.0217+	- .6439	.5197
CR2	-1.3936	.1634	-2.5205	.0117+
CR3	-1.0690	.2850	-1.6036	.1088
SR	-2.8373	.0045++	- .6720	.5016
COR	.0000	1.0000	.0000	1.0000 x
D	-3.9199	.0001***	- .1293	.8971
S	-2.8166	.0049**	-3.5058	.0005***

* Diagnostic 1 texts have higher significant frequencies
+ Diagnostic 2 texts have higher significant frequencies
x   No frequencies to compute

Table 9.26   Summary of Results Showing Significant Differences in Frequency of Types of links by Level between D1 and D2

Type of Link	High Texts		Low Texts	
	D1	D2	D1	D2
CP1	SH *			H
CP2	H		NF	NF
CP3	H		NF	NF
SPP	H			H
SMP1	SH *			SH *
SMP2	H		H	
CR1		SH *	H	
CR2	H			SH *
CR3	H			H
SR		SH *		H
COR	NF	NF	NF	NF
D	SH *			H
S	SH *		SH *	

H   = Higher frequency
SH   = Significantly higher frequency
*   = Significant difference between D1 and D2 texts
NF   = No Frequencies found in the analysis

Summary of the Findings of Mean Percent Frequency of Types of Links between D1 and D2 in HT and LT

The findings in Tables 9.24, 9.25 and 9.26 indicate the following:

High Texts

1. Although the 6 lexical cohesive types below had higher mean percent frequencies in Diagnostic 1 texts when compared with the mean percent frequencies in Diagnostic 2 texts, there were no significant differences.

      CP2
      CP3
      SPP
      SMP2
      CR2
      CR3

The decrease in the use is distinctly odd: it may be due to the lack of motivation to exert effort in the use of more sophisticated lexical items or the teaching materials were inadequate.

2. There was a significant drop in percent frequency on 4 of the lexical cohesive types (below) in Diagnostic 2 texts.

      CP1
      SMP1
      D
      S

There was no significant increase in frequency of use of the more sophisticated types of CP1 and SMP1 in D2 texts over D1 texts. The significant decrease in the frequency of S does show a more proficient writer in using less of the grammatical items. Although D is grammatical, its use does show a knowledge of how to link back to larger stretches of discourse. A significant decrease here possibly indicates again the higher proficient students' writing reaching a plateau of ability.

3. There was a significant increase of the 2 lexical cohesive types (below) in the Diagnostic 2 when compared to the Diagnostic 1 texts.

      CR1
      SR

The increase in the use of SR especially in the HT again indicates that the students were probably not making much effort to use more sophisticated lexical items. This is also true of the CR1. At the same time, the increase in CR1 indicates an awareness of derivational forms.

4. There were no frequencies for co-ref to compute. The topic was such that the students problably did not find it necessary to refer to any persons other than those in a family relationship and even here did not refer to them by their personal names.

Low Texts

1. Although 5 of the lexical cohesive types (below) showed higher mean percent frequencies in Diagnostic 2 texts, the differences when compared with the Diagnostic 1 texts were not significant.

> CP1
> SPP
> CR3
> SR
> D

The LT did indicate an improvement in the mean frequency use of more sophisticated lexical cohesive types but not sufficiently to be significant (perhaps the LT writers would need more time for improvement in these areas). Having an increase in SR in Diagnostic 2 also indicates that the students were repeating the same word more which is not highly valued in EFL methodology unless it is over longer stretches of text (see section B.below)

2. Although there were higher mean percent frequencies on 2 of the lexical cohesive items (below) in the Diagnostic 1 texts, the differences when compared with the Diagnostic 2 were not significant.

> SMP2
> CR1

The LT indicated an initial attempt to use some more sophisticated lexical cohesive items but the percent frequencies decreased.

3. There was a higher significant difference in D2 texts when compared to D1 on 2 of the cohesive lexical types (below).

> SMP1
> CR2

A significant frequency in D2 texts of these two types indicates the students' improvement in attempting to use more sophisticated lexical items.

4. There was a higher significant decrease in the frequency of S in Diagnostic 2 texts indicating that the LT were probably using more discoursal lexical types than grammatical.

Thus, the null hypothesis 15.3 is rejected.

General Conclusions

The *HT* indicated a significant higher frequency in D1 texts in CP1, SMP1, D, and S and a significant higher frequency in D2 in CR1 and SR. There were no significant differences in CP2, CP3, SPP, SMP2, CR2 and CR3. There were no frequencies for Co-Ref.

The *LT* indicated a significant higher frequency in SMP1 and CR2 in D2 texts and S in D1 texts but no significant differences in CP1, SPP, SMP2, CR1, CR3, SR, and D. There were no frequencies in both D1 and D2 for CP2, CP3 and Co-Ref.

If D1 and D2 are considered as two sittings or two products or two 'drafts' for the essay rather than as a pre and post test situation, then findings suggest that the LT improved in using two lexical cohesive items in D2, that of SMP1 and CR2. The HT used more of CR1 and SR, which are not as sophisticated as the former. There seems to be a need for teaching materials in lexical cohesion.

If taken as pre-post tests, this again may point to the HT reaching a threshold (in their view, in relation to course targets) or for the need of specific teaching materials/methods in lexical cohesion. It is recommended that an experimental research design be set up to test the effect of using specially designed materials. It may be that the inclusion of such material/methods may help the lower proficient writers improve more significantly in a second written sample and maintain the initial efforts in lexical sophistication that the HT indicated in the Diagnostic 1 in the present study when compared to those in the Diagnostic 2 texts.

4. By Text Level and Study Language in D1 - NH 16.1

There will be no statistically significant differences in *frequency of type* of lexical cohesion links as identified by the criteria adapted on Hoey's (1991a) lexical cohesion categories and study language at the same level in *Diagnostic 1 texts.*

a. The results in table 9.27 indicate that the EHT had the higher mean percent frequencies of lexical cohesive types as mentioned below in D1 texts but the differences were not significant as indicated in Table 9.28 when compared to the same in the FHT.

CP2
SPP
SMP1
CR1
CR2
CR3

It is interesting to note that although not significant, the FHT had a higher mean frequency of the grammatical lexical items.

b. The results in Tables 9.27 and 9.28 further indicate that the ELT had the higher mean percent frequency in D1 texts in the lexical cohesive types mentioned below but the differences were not significant when compared to the same in the FLT.

SMP2
CR1
D
S

The FLT had a significant (p=<.05) higher frequency of SPP (p=.0488) and SMP1 (p=.0439).

Thus, the null hypothesis 16.1 is rejected.

Discussion

Although not significant, it was interesting to note that both the FHT and FLT had a higher mean percent frequency of SR. Students at both levels of proficiency, high and low, repeat the same word a lot. It was also interesting to observe that the FLT indicate more variety of lexical types than the ELT.

Table 9.27 Mean Percent Frequency of Type of Lexical Cohesion Links by Level & Study Language in D1 Texts

Texts	Mean		Std. Deviation	
	HT	LT	HT	LT
English				
CP1	.32	.00	.44	.00
CP2	.33	.00	.97	.00
CP3	.00	.00	.00	.00
SPP	.97	.00	1.33	.00
SMP1	3.11	.73	3.50	1.09
SMP2	.00	.73	.00	1.63
CR1	8.07	8.34	7.89	5.03
CR2	8.09	.18	9.48	.41
CR3	.30	.00	.68	.00
SR	74.13	68.93	10.89	11.80
COR	.00	.00	.00	.00
D	1.97	2.84	1.29	2.01
S	6.69	18.25	7.01	11.67
French				
CP1	1.54	.08	3.97	.31
CP2	.00	.00	.00	.00
CP3	.00	.00	.00	.00
SPP	.45	.39	1.03	1.02
SMP1	2.96	1.25	4.00	2.96
SMP2	.26	.03	.53	.11
CR1	2.26	6.88	1.59	5.64
CR2	3.41	1.09	3.38	2.56
CR3	.00	.00	.00	.00
SR	80.01	79.44	6.54	9.76
COR	.00	.00	.00	.00
D	2.31	1.60	2.37	1.66
S	6.96	9.27	4.29	6.64

Table 9.28 Significant Differences in Frequency of Type of Links
between Study Languages in the HT and LT in D1
Texts Using the Mann-Whitney Statistical Procedure

Texts	HT		LT	
	Z	2 Tail P	Z	2 Tail P
CP1	- .3055	.7600	- .5596	.5758
CP2	- .0000	1.0000	- .8377	.4022
CP3	.0000	1.0000	-1.7321	.0833
SPP	- .7489	.4539	-1.9704	.0488*
SMP1	-1.1576	.2470	-2.0152	.0439*
SMP2	- .0729	.9419	-1.0531	.2923
CR1	- .1520	.8792	- .6549	.5125
CR2	-1.9166	.0553	- .4837	.6286
CR3	- .0729	.9419	- .7539	.4509
SR	- .6080	.5432	-1.1788	.2385
COR	.0000	1.0000	.0000	1.0000
D	- .8038	.4215	-1.4402	.1498
S	- .8360	.4031	- .0437	.1498

5. By Text Level and Study Langage in D2 - NH 16.2

There will be no statistically significant differences in *frequency of type* of lexical cohesion links as identified by the criteria adapted on Hoey's (1991a) lexical cohesion categories and study language at the same level in *Diagnostic 2 texts*.

a. The results in Table 9.29 indicate that the EHT had the higher mean percent frequency of the types of lexical cohesive links mentioned below, but the results in Table 9.30 indicate that there were no significant differences when compared with the FHT.

CP1
CP3
SMP1
SMP2
CR3
SR
D

b. The results further indicate that the ELT had the higher mean percent frequency of the types of lexical cohesive links mentioned below, but once again the results in Table 9.30 indicate that there were no significant differences when compared with the FLT.

SMP1
SMP2
CR1
CR2
CR3
D

Thus the null hypothesis 16.2 is accepted.

Table 9.29 Differences in Frequency* of Type of Lexical Cohesion
Links by Level & Study Language in D2 Texts

Texts	Mean			Std. Deviation		
	HT	MT	LT	HT	MT	LT
English						
CP1	.39	.00	.12	.52	.00	.21
CP2	.09	.00	.00	.19	.00	.00
CP3	.53	.00	.00	1.50	.00	.00
SPP	.69	2.00	.12	.63	4.47	.21
SMP1	2.28	.71	1.81	2.20	.96	3.13
SMP2	.04	.24	.60	.12	.55	1.05
CR1	4.62	10.15	4.21	3.01	13.36	7.30
CR2	1.99	10.00	3.82	3.86	9.72	1.08
CR3	.14	.00	2.41	.27	.00	4.17
SR	83.51	73.87	81.97	7.44	13.18	16.98
COR	.00	.00	.00	.00	.00	.00
D	1.65	1.66	.85	1.61	1.11	.76
S	3.91	7.97	4.09	5.17	10.56	5.32
French						
CP1	.00	.10	.41	.00	.22	.63
CP2	.27	.00	.00	.66	.00	.00
CP3	.00	.06	.00	.00	.18	.00
SPP	.22	1.37	.14	.53	2.66	.38
SMP1	2.02	3.72	1.42	2.73	6.67	1.64
SMP2	.00	.00	.07	.00	.00	.18
CR1	6.55	5.81	3.11	4.42	7.12	2.92
CR2	6.48	3.17	2.17	5.99	5.51	4.57
CR3	.00	.16	.49	.00	.36	1.39
SR	66.32	74.99	84.17	30.59	13.19	10.73
COR	.00	.00	.00	.00	.00	.00
D	.96	2.18	1.82	.57	2.13	1.58
S	5.29	8.44	6.22	5.17	10.22	7.55

* Calculated on the basis of the total number of links in a given text

Table 9.30 Significant Differences in Percent Frequency of Type of Links
between Study Languages in the HT, MT and LT in D2
Texts Using the Mann Whitney Statistical Procedure

Diagnostic 2	HT		MT		LT	
	Z	2 Tail P	Z	2Tail P	Z	2Tail P
CP1	-1.9405	.0523	-1.0351	.3006	- .1402	.8885
CP2	- .1796	.8574	.0000	1.0000	.0000	1.0000
CP3	- .8660	.3865	- .7071	.4795	.0000	1.0000
SPP	-1.3582	.1744	- .1572	.8751	-1.5275	.1266
SMP1	- .1292	.8972	- .5164	.6056	- .1216	.9032
SMP2	- .8660	.3865	-1.4142	.1573	- .8133	.4161
CR1	- .9037	.3662	- .9807	.3284	- .5768	.5640
CR2	-1.2093	.2265	-1.3284	.1840	-1.3372	.1811
CR3	-1.2710	.2037	-1.0351	.3006	- .8133	.4161
SR	-1.0328	.3017	- .3674	.7133	-1.1140	.9093
COR	.0000	1.0000	.0000	1.0000	.0000	1.0000
D	- .5816	.5608	- .3674	.7133	-1.1431	.2530
S	- .3890	.6973	- .4310	.6665	- .6858	.4928

General Discussion

Although not significant, the English students at a high level of writing proficiency indicate more lexical variety than the French students. This might have been expected, given their greater exposure to English. However, at the lower level of writing proficiency, the French educated students showed a significant (p<.05) higher frequency of SPP (p=.0488) and SMP1 (p=.0439) in the Diagnostic 1 texts but no significant differences between the study languages were found in the D2 texts.

Generally, the EHT and the FLT have more lexical variety. Possibly, the French low educated proficiency writers draw on their lexical knowledge in French and probably some of the similar lexical items or cognates from French were transferred to the Diagnostic 1 (Odlin, 1989) which was written just after they had finished their high school education. This was confirmed by some of the comments during the interview sessions (see Chapter Eleven).

B. Frequency of Type of Lexical Cohesion between Adjacent Sentences - Null Hypothesis 17.1, 17.2, 18.1, 18.2

There will be no statistically significant differences in frequency of *type of lexical cohesion links* as identified by the criteria adapted on Hoey's lexical cohesion categories and expressed as a percentage of the total number of links in a given text in *adjacent sentences* in *HT* and *LT* texts in 1) *Diagnostic 1* texts (17.1) and 2) *Diagnostic 2* texts (17.2).

1. Frequency of Type of Lexical Cohesion between Adjacent Sentences in D1 HT and LT - NH 17.1

The results in Table 9.31 indicate the differences between the HT and LT in mean percent frequency of type of lexical cohesion links between adjacent sentences in D1 and 2 texts and the significant differences found in Table 9.32. The results are summarized in Table 9.34 immediately following with a discussion.

Table 9.31 Differences in Mean Percent* Frequency of Type of Lexical Cohesion Links between adjacent sentences (anywhere in the text) by Level in D1 and D2

Texts	Mean			Std. Deviation		
	HT	MT	LT	HT	MT	LT
Diagnostic 1						
CP1	12.50		0	31.93		0
CP2	5.46		0	22.35		0
CP3	0		0	0		0
SPP	7.67		7.5	23.32		24.47
SMP1	16.98		8.13	25.87		24.43
SMP2	1.67		1.25	7.45		5.59
CR1	17.38		23.03	16.49		31.15

CR2	13.42		2.67	30.06		8.48
CR3	1.25		0	5.59		0
SR	11.20		15.23	4.53		5.37
COR	0		0	0		0
D	95.00		75.00	22.36		44.43
S	27.82		23.29	26.43		17.17
Total links	**14.24**		**18.14**	**4.34**		**5.32**
Diagnostic 2						
CP1	17.86	0	9.09	37.25	0¹	30.15
CP2	0	6.67	0	0	25.82	0
CP3	0	0	0	0	0	0
SPP	7.14	3.43	0	18.16	9.50	0
SMP1	18.71	13.55	12.12	32.48	27.64	23.39
SMP2	0	0	0	0	0	0
CR1	12.34	11.38	9.94	17.44	16.28	16.26
CR2	4.09	12.39	8.61	5.51	25.77	20.10
CR3	0	0	2.27	0	0	7.54
SR	10.31	12.27	15.85	4.31	4.22	4.57
COR	0	0	0	0	0	0
D	92.86	86.67	72.73	26.73	35.19	46.71
S	24.23	21.13	25.09	23.63	18.69	28.62
Total links	**13.35**	**15.35**	**17.92**	**5.52**	**4.33**	**4.60**

* Calculated on the basis of the total number of the concerned links in a given text

0 = no frequencies

Table 9.32 Significant Differences in Frequency of Type of Links between HT and LT between adjacent sentences in D1 and D2 Texts Using the Mann Whitney Statistical Procedure

Diagnostic 1	Z	2 Tail P.
HT with LT		
CP1	-1.770	.0756
CP2	-1.4322	.1521
CP3	.0000	1.0000 +
SPP	- .4002	.6890
SMP1	-2.3502	.0188*
SMP2	- .0358	.9714
CR1	- .1809	.8565
CR2	-2.2347	.0254*
CR3	-1.0000	.3173
SR	-2.4345	.0149*
COR	0	0 +
D	-1.7489	.0803
S	-.0271	.9784
Total links	**-2.2995**	**.0215***

Table 9.33 **Significant Differences in Frequency of Type of Links between HT and LT between adjacent sentences in D1 and D2 Using the Mann-Whitney Statistical Procedure**

Diagnostic 2	HT with LT		HT with MT		MT with LT	
	Z	2 Tail P	Z	2 Tail P	Z	2 Tail P
CP1	- .7731	.4395	-1.8581	.0632	-1.1677	.2429
CP2	.0000	1 .0000	- .9661	.3340	- .8563	.3918
CP3	.0000	1 .0000+	.0000	1.0000	.0000	1 .0000
SPP	-1.2805	.2004	- .2184	.8271	-1.2350	.2168
SMP1	- .5255	.5993	- .3175	.7509	- .1481	.8822
SMP2	.0000	1.0000+	.0000	1.0000	.0000	1.0000
CR1	- .8871	.3750	- .5660	.5714	- .3754	.7074
CR2	- .2548	.7989	- .6218	.5341	- .8296	.4068
CR3	-1.1282	.2593	.0000	.0000	-1.1677	.2429
SR	-3.0110	.0026**	-1.4839	.1378	-1.9462	.0516*
COR	0	0 +	0	0	0	0
D	-1.3353	.1818	- .5375	.5909	-.8737	.3823
S	- .0277	.9779	- .1991	.8422	-.0262	.9791
Total links	**-2.2445**	**.0248***	**-1.4622**	**.1437**	**-1.2196**	**.2226**

\+ = no frequencies to compute

Table 9.34 **Summary of Results Showing Significant Differences in Frequency of Type of Links in Adjacent Sentences (anywhere in the text) by Level in D1 and D2**

Type of Link	Diagnostic 1	Diagnostic 2
CP1	H	H
CP2	H	NF (H & L)
CP3	NF (H & L)	NF (H & L)
SPP	H	H
SMP1	HS (.0188)*	H
SMP2	H	NF (H & L)
CR1	L	H
CR2	HS (.0254)*	L
CR3	H	L
SR	L (.0149)*	L (.0026)*
COR	NF (H & L)	NF (H & L)
D	H	H
S	H	L
Total Links	L (.0215)*	L (.0248)*

H   = Higher mean percent frequency in High texts
L   = Higher mean percent frequency in Low texts
HS = Significantly higher frequency in High Texts
LS = Significantly higher frequency in Low Texts
NF = No Frequencies found in the analysis
       (H = high texts, L = low texts)

a. The LT had a higher significant frequency of the types of links when considered as a total

(p=.0215)

b. The LT had a higher significant frequency of SR (p=.0149)

c. The HT had a higher significant frequency of SMP1 (p=.0188) and CR2 (p=.0254).

d. Although the HT had higher mean percent frequencies in CP1, CP2, SPP, SMP2, CR3, D, and S, the differences when compared to those in the LT were not significant.

e. Although the LT had a higher mean percent frequency in CR1, the difference when compared to the same in the HT was not significant.

f.. Both the HT and LT indicated no frequencies for CP3 and Co-Ref.

Thus the null hypothesis 17.1 is rejected.

2. **Frequency of Type of Lexical Cohesion between Adjacent Sentences in D2 HT and LT - NH 17.2**

a. The LT had a higher significant frequency of the type of links when considered as a total (p=.0248).

b. The LT had a higher significant frequency of SR (p=.0026).

c. Although the HT had a higher mean percent frequency of CP1, SPP, SMP1, CR1, and D, the differences when compared to the same in the LT were not signficant.

d. Although the LT had a higher mean percent of CR2, CR3 and S, the differences when compared to the same in the HT were not significant.

e. Both the HT and LT indicated no frequencies for CP2, CP3, SMP2 and Co-Ref.

Thus the null hypothesis 17.2 is rejected.

Priority Order of Using Lexical Cohesive Types in Adjacent Sentences

Another way of viewing the results is to compare the priority order in HT and LT in D1 and D2 of using the types of links (expressed as a mean percent frequency calculated out of the total frequency of the type of link concerned in a given text) in adjacent sentences. The table below summarizes the results followed by a discussion.

**Table 9.35   Summary of Results Showing Significant Differences in
Frequency of links in Adjacent Sentences (anywhere
in the text) by Priority Order of Use by Level**

Type of Link	Diagnostic 1		Diagnostic 2	
	HT	LT	HT	LT
CP1	6	9 *	4	6
CP2	9	9 *	9 *	8 *
CP3	12 *	9 *	9 *	8 *
SPP	8	6	7	8 *
SMP1	4	5	3	4
SMP2	10	8	9 *	8 *
CR1	3	3	5	5

CR2	5	7	8	7
CR3	11	9 *	9 *	8 *
SR	7	4	6	3
COR	12 *	9 *	9 *	8 *
D	1	1	1	1
S	2	2	2	2

* = no frequencies
1 = Highest mean percent frequency

Discussion

1. Clearly, both HT and LT indicate that the types of links used most frequently in adjacent sentences are D and S in both D1 and D2 (when each type is calculated out of the total number of its own type in the text). Both are grammatical links and connect referents that are in adjacent sentences.

2. The HT indicate that the more sophisticated types of links are used more often in adjacent sentences than those in the LT. The HT use SR in a lower priority order than the LT

General Discussion

1. The LT showed a significant higher total percent frequency of SR links in adjacent sentences when compared to the same in the HT in both D1 and D2 texts. The HT also showed a significant higher mean percent frequency of SMP1 and CR2 in D1 texts.

2. The HT indicated more lexical cohesive variety in adjacent sentences and use of more synonym type repetitions, which in current EFL methodology is considered better style, and use SR over longer distances which gives better attention to what was said earlier in the text (paraphrasing not being as good at longer distances), while the lower proficient writers use more repetitions of the same word in adjacent sentences, which is not encouraged in current EFL methodology in teaching writing.

3. By Text Level and Study Language in D1 - NH 18.1

There will be no statistically significant differences in *frequency of type of lexical cohesion links* as identified by the criteria adapted on Hoey's lexical cohesion categories and expressed as a percentage of the total links in a given text in adjacent sentences and the texts written by *English* and *French* educated students at the same level in 1) *Diagnostic 1* texts (18.1) and 2) *Diagnostic 2* texts (18.2).

The results in Tables 9.36-9.39 indicate that there were no significant differences between study languages at the same level in both D1 and D2 texts.

Thus, the null hypotheses 18.1 and 18.2 are accepted.

4. By Text Level and Study Language in D2 - NH 18.2

(see section 3.earlier)

Discussion

1. In the D1 and D2 texts, the FLT indicated more lexical cohesive variety in adjacent sentences than the ELT, but this was not significant when the lexical cohesive types were compared to the ELT texts.

2. In both D1 and D2 texts, the EHT and FHT seemed to have the same lexical variety.

3. In both D1 and D2 texts, the FHT had more SR than the EHT, whereas the FLT had more SR in D1 texts but less in D2 texts.

Table 9.36   Mean Percent* Frequency of Type of Lexical Cohesion Links in Adjacent Sentences by Level & Study Language in D1 Texts

Texts	Mean		Std. Deviation	
	HT	LT	HT	LT
English				
CP1	4.55	0	15.08	0
CP2	9.92	0	30.00	0
CP3	0	0	0	0
SPP	12.12	0	30.81	0
SMP1	14.27	0	20.50	0
SMP2	0	5	0	11.18
CR1	16.25	10.00	14.89	22.36
CR2	4.64	0	6.29	0
CR3	2.27	0	7.54	0
SR	9.78	15.26	5.09	3.52
COR	0	0	0	0
D	90.00	100.00	30.15	.00
S	27.07	23.94	31.02	9.91
Total links	13.45	17.92	4.08	2.12
French				
CP1	22.22	0	44.10	0
CP2	0	0	0	0
CP3	0	0	0	0
SPP	2.22	10.00	6.67	28.03
SMP1	20.29	10.83	32.28	27.90
SMP2	3.70	0	11.11	0
CR1	18.77	27.38	19.10	33.06
CR2	24.16	3.56	43.16	9.71
CR3	0	0	0	0
SR	12.92	15.21	3.19	5.97
COR	0	0	0	0
D	100.00	66.67	.00	48.80
S	28.73	23.07	21.33	19.28
Total links	**15.19**	**18.22**	**4.69**	**6.09**

Table 9.37 Significant Differences in Frequency of Type of Links in Adjacent
Sentences between Study Languages in the HT and LT in D1
Using the Mann Whitney Statistical Procedure

Texts	HT		LT	
	Z	2 Tail P	Z	2 Tail P
CP1	- .9175	.3589	.0000	1.0000+
CP2	-1.3124	.1894	.0000	1.0000+
CP3	0	0 +	0	0 +
SPP	- .5499	.5824	- .8377	.4022
SMP1	- .2391	.8111	-1.0531	.2923
SMP2	-1.1055	.2689	-1.7321	.0833
CR1	- .1543	.8774	-1.4190	.1559
CR2	- .2912	.7709	- .8377	.4022
CR3	- .9045	.3657	0	0 +
SR	-1.7094	.0874	- .3055	.7600
COR	0	0 +	0	0 +
D	- .9045	.3657	-1.4530	.1462
S	- .7980	.4249	- .4812	.6304
Total links	- .7977	.4250	- .3931	.6943

+ no frequencies to compute

Table 9.38 Mean Percent* Frequency of Type of Lexical Cohesion Links
in Adjacent Sentences by Level & Study Language in D2

Texts	Mean			Std. Deviation		
	HT	MT	LT	HT	MT	LT
English						
CP1	31.25	0	0	45.81	0	0
CP2	0	0	0	0	0	0
CP3	0	0	0	0	0	0
SPP	6.25	0	0	17.68	0	0
SMP1	12.60	30.00	2.22	25.96	44.72	3.85
SMP2	0	0	0	0	0	0
CR1	9.72	8.68	6.67	9.37	10.48	11.55
CR2	4.43	8.85	22.22	6.52	11.12	38.49
CR3	0	0	0	0	0	0
SR	10.05	12.20	13.17	3.85	3.01	4.00
COR	0	0	0	0	0	0
D	87.50	100.00	66.67	35.36	.00	57.74
S	24.82	22.71	12.96	29.09	22.15	11.56
Total links	13.70	14.78	16.24	5.82	3.32	2.18
French						
CP1	0	0	12.50	0	0	35.36
CP2	0	10.00	0	0	31.62	0
CP3	0	0	0	0	0	0
SPP	8.33	5.15	0	20.41	11.43	0
SMP1	26.85	5.33	15.83	40.74	8.60	26.83
SMP2	0	0	0	0	0	0
CR1	15.83	12.72	11.16	25.35	18.90	18.25
CR2	3.64	14.16	3.50	4.34	31.10	6.67

CR3	0	0	3.13	0	0	8.84
SR	10.66	12.31	16.85	5.22	4.87	4.36
COR	0	0	0	0	0	0
D	100.00	80.00	75.00	.00	42.16	.00
S	23.45	20.34	29.63	16.30	17.97	32.33
Total links	**12.88**	**19.10**	**14.91**	**5.58**	**4.62**	**5.14**

* Calculated on the basis of the total number of concerned links in the texts

Table 9.39 **Significant Differences in Frequency of Type of Links in Adjacent Sentences between Study Languages in the HT, MT and LT in Diagnostic 2 Texts Using the Mann Whitney Statistical Procedure**

Diag.2	HT		MT		LT	
	Z	2Tail P	Z	2 Tail P	Z	2 Tail P
CP1	-1.6202	.1052	0	0 ++	- .6124	.5403
CP2	0	0 ++	- .7071	.4795	0	0 ++
CP3	0	0 ++	0	0 ++	0	0 ++
SPP	-1.2805	.2004	- .2184	.8271	- .2184	.8271
SMP1	- .5255	.5993	- .3175	.7509	- .1481	.8822
SMP2	0	0 ++	0	0 ++	0	0 ++
CR1	- .1305	.8961	- .1330	.8942	- .2364	.8131
CR2	- .0715	.9430	- .5314	.5952	- .5192	.6036
CR3	0	0 ++	0	0 ++	- .6124	.5403
SR	- .1291	.8973	- .2449	.8065	-1.2247	.2207
COR	0	0 ++	0	0 ++	0	0 ++
D	- .8660	.3865	-1.0377	.2994	- .2635	.7921
S	- .5233	.6007	- .2481	.8041	- .7244	.4688
Total links	**.0000**	**1.0000+**	**- .8573**	**.3913**	**-1.4289**	**.1530**

+ Equal

++ No frequencies to compute

V. Summary of Findings

The results in general show that there are no relations between lexical cohesion and text level which confirms the previously reported research in the field that cohesion is not a necessary feature of writing quality. However, the findings do show that the HT have significant bonding over longer stretches of text and significantly indicate in the text more sophisticated lexical cohesive type of links when the same were compared in the LT. The results further indicate that the students study language in high school, either English or French, does not significantly influence performance in use of lexical cohesion. The extent of expected differenes between English and French educated is not clear, since there are, it is supposed, clear parallels between these two languages regarding lexical cohesion, whereas differences between English and Arabic are, presumably, greater (cf. Odlin, 1989). It may be

that at lower language levels these differences would be apparent but that by the time French educated students reach LAU any differences are not sufficiently salient to be significant.

The results which are significant have enormous pedagogical implications for the teaching/learning of writing some of which related to the contribution of coherence will be discussed in Chapter Ten. Chapter Eleven gives a discussion of the results of the interviews carried out with a sample of the students who wrote the texts, and Chapter Twelve concludes with a general discussion of the results in the present study, recommendations for the teaching/learning of writing specifically the essay and suggestions for future research.

PART V - FURTHER INVESTIGATIONS

CHAPTER TEN - CONTRIBUTION OF LEXICAL COHESION TO TEXT COHERENCE

"For they stand together...woven together."
Gibran, The Prophet

In the previous chapter, results of four tested hypotheses were given on the relation between lexical cohesion and text level and the comparison between high and low rated texts in lexical cohesion in D1 and D2 texts. Findings indicated that although lexical cohesion as identified in the present research is not necessarily related to text quality, the high rated texts indicate a more 'sophisticated' use of certain types of lexical links and linkage over greater distances in texts. Both of these findings may have important implications in the EFL teaching/learning of compositions. Since cohesion is, therefore, shown to be an important element in students' writing (see also Chapter Five), its contribution to the clarity or coherence, specifically organization, of the students' texts was further investigated. This aim (see Chapter One) is an extension of the data and is intended as a preliminary study toward more rigorous future research.

In this chapter the methodology and results of this investigation will be given. Specifically, the results will first be based on a random sample of eight texts reassessed to determine whether they are coherent using the methods employed as used by Hoey (1991a). Second, a model for the relation between lexical cohesion (as outlined in the present research) and text coherence will be suggested. The results will be reported according to level and the number of links (two and three) that equal one bond to find out to what degree these variables affect the coherence ratings. Although the variable of the study language of English or French was considered in selecting the random sample of eight texts in order to give a complete picture, it was found not to make any significant difference in students' use of lexical cohesion in texts at the same level (see also Chapter Nine), these results on study language will not be reported according to it in this investigation except where there are particular points of interest. The investigation is presented in five sections: 1) purpose for further investigation, 2) procedure for selecting the texts, 3) procedure for re-evaluating the texts, 4) results and discussion and 5) suggested model of the relationship between lexical cohesion and coherence.

I. Purpose for Further Investigation

Research findings have shown that there is little or no relationship between cohesion and coherence and cohesion and writing quality (see Chapter Five). The *purpose* for re-evaluating the texts was to investigate the contribution of cohesion to the coherence of the texts using the bonded sentences as the criteria for coherence. It is, therefore, the quantity or density of bonding between sentences in the text that is significant in this context. In Hoey's (1991a) analysis, it is claimed that sentences that are bonded are coherent together.

> "....the co-occurence of the requisite number of repetitions is sufficient to compel a reading of the pairs as intelligible; in other words, bonded sentences make sense together in their context without the intervening text." (p. 126)

Thus, cohesion is a property of the text, the patterns of lexical cohesion over the text that create the relationships among the sentences and contribute to the organization of the text. It is this organization or lexical cohesive patterning that is claimed to contribute to the coherence of the text and, therefore, to the quality of the text. If the bonded sentences do make sense together, then more than one sub-text may be possible depending upon which sentences bond together.

In interpreting whether a text is coherent or not there have been many types of evaluation, but many of them have focused on holistic scoring of textual properties (see Chapter Five). In Hoey's terms, coherence is not a property of the text as such but "...is a facet of the reader's evaluation of a text" (p.12); it is the reader who determines (or unearths) whether there is a meaningful relationship among the sentences. Although coherence is not a property of text as cohesion is, Hoey (1991a, 1991b) explains how the reader might rate texts as coherent on the basis of the bonded pairs of sentences. He does this by giving extensive examples from the Political Text (see Appendix H) (Hoey, 1991a) and a newspaper article (Hoey, 1991b) showing that bonded pairs of sentences are related and claims that it is through these relations that readers might interpret the coherence of the text. This is briefly discussed below:

1. Based on Winter's work (1974, 1979), Hoey claims that the "...cohering effect of cohesive ties [is] by reference to the concepts of systematic repetition and significant replacement" (Hoey, 1991a, p.162). That is, "...repetition provide[s] a context or framework for interpreting what a writer offered as new in the later sentence; the new material, which replaces something from the earlier sentence, is essential to maintaining the lexical uniqueness of the later sentence" (ibid., p.162-3). Hoey gives an example from the Political Text and shows that the latter is achieved through parallelism. The example and the parallelism (which

is made more explicit below the excerpt from the Political Text) which the reader may base the coherence rating on are given below.

1 What is attempted in the following volume is to present to the reader a series
of actual excerpts from the writings of the greatest political theorists of the past;
selected and arranged so as to show the mutual coehrence of various parts of an
author's thought and his historical relation to his predecessors or successors; and
accompanied by introductory notes and intervening comments designed to assist
the understanding of the meaning and importance of the doctrine quoted. 4 I have
tried rather to render the work of Aristotle, Augustine, and the rest accessible to
the student, than to write a book about them; and the main object of this work will
have been achieved if it serves not as a substitute for a further study of the actual
works of these authors, but as an incentive to undertake it.

1		4
What is **attempted** *by me*	=	I have **tried**
in the following volume	=	*in the following volume*
[is] to present	∫	to render...accessible
to the reader		to the student
a series of actual excerpts from the **writings**	∫	the work
of the greatest political theorists of the past	?=	of Aristotle, Augustine, and the rest

(ibid., pp. 163-164)

It can be seen from the juxtaposition of the above words and phrases from the text that this one interpretation of the parallelism indicates that some are equal (=), others are related (∫) and one is questionable (?=). The words in italics are inferred by the reader if sense is to be made of the pair of sentences and those in bold link with other lexical items in the text.

2. Hoey points out, however, that "...not all pairs of bonded sentences submit to analysis in such neat terms" (ibid., p.167). He mentions that some sentences do not show overt parallelisms but that there are other ways, incorporating insights offered by McCarthy (1987) in interpreting sentences as coherent which work together such as lexical expansion, lexical reduction, lexical transference, lexical substitution, syntactic equivalence and discoursal expansion (ibid., p.167-173). An example of each based on the Political Text is given below:

a. *Lexical expansion*

According to Hoey, "Lexical expansion can either be the process of reading more into a word than would be provided in a strict dictionary definition of the old-fashioned kind, or of spelling out the implications of a word in a particular context. What happens is that we take the words we have been given and expand upon them to get maximum sense out of them.

Thus, in the example below, the phrase "...a study of the political writers..." is expanded by the reader to "...a study *of the works* of the political writers..." as it is understood that it is the works and not the writers that are studied (ibid., p.170).

> "What, then, is the advantage which we may hope to derive from a study of the political writers of the past?" (ibid., p.170)

b. *Lexical reduction*

This is "...whenever some of the lexical information is left out in the recognition of a parallelism.... either words are omitted, or a superordinate is recognized in the more specific wording. For example, "**a modern reader** may, for the purposes of recognizing a parallel, be read as **a reader; handbook** may be read as **book** or even **writing** or **work**" (ibid., p.170-71).

c. *Lexical transference*

Lexical transference is "...to transfer an attribute from an object to a property of the object. Thus, the leaves of an autumnal tree are assumed to be likewise autumnal, the clothes on sale in a expensive shop are exected to be expensive..." Texts can also reflect this process as in the example below:

> '...a man of superior wisdom in the art of politics may set down his knowledge in a book...

A lexical transference can be assumed in this example that of **politics** to **knowledge** and **book** and thus the sentence is read as follows:

> '...a man of superior wisdom in the art of politics may set down his knowledge of politics in a book of politics.'
>
> (ibid., p.171)

d. *Lexical substitution*

This includes synonyms (works/writings), antonyms (happy/unhappy) and other relationships between words such as hyponymy (whole to part: family/children) and meronymy (part to whole: pages/works. Two major lexical substitutions are syntactic equivalence and discoursal expansion.

- *Syntactic equivalence*

Syntactic equivalence enables the "...recurrent syntactic relationships ...to identify related sentences in a discourse...termed equivalences or transforms....there are syntactic equivalences between strings in a text and ...as text is processed, such equivalences are used to establish parallelisms between bonded sentences" (ibid., p.172).

Example: the art of politics (sentence 20)   politics as an art (sentence 25)

- *Discoursal expansion*

This consists of a number of processes. First, the relationship between the personal pronouns and the person involved e.g. **we** expanded to **Michael Hoey** and **the reader** by the reader. Second, examples that cover stretches of texts such reference to earlier sentences e.g. **the first sentence** which is understood by the reader to be the first in the paragraph concerned or the text. Third, pronominal substitutions such as *he, she* etc. Fourth, words that substitute for others as in e.g. "*Britain* has asked for an extension to the deadline." It is understood by the reader that the Secretary of State or Foreign Secretary are involved and not millions of people. This example could be reversed. If the Foreign Secretary is used, the reader would understood he is representing many people in Britain (ibid., p.173).

Hoey claims that it is the combination of the above in linking sentences that contributes to the coherence of the bonds they create (ibid., p.174). It is the writer that uses them and the reader that recognizes them in producing and unearthing coherence respectively.

The view that is taken in this chapter, then, is similar to Hoey's in that bonded sentences cohere together (accounted for in terms of repetition and replacement). Also, the view is consistent with those who see the positive contribution of cohesion to coherence in texts such as Parsons who states that "...although cohesion might not be absolutely necessary for coherence, a text with cohesive devices is more likely to be coherent, other things being equal" (1991, p.416). In this context, and following Hoey (1991a), it is claimed that bonded pairs of sentences are coherent together. If this were the case, then the bonding and in turn lexical cohesion would have tremendous implications to the teaching/learning of the essay in the EFL classroom. The rest of the chapter is an attempt to test this claim as a preliminary step to more research. Specifically, there are four aims as outlined below. The procedure and results are given under corresponding headings (termed steps) under Sections III. and IV. respectively.

Aim 1

To what degree are the sub-texts intelligible to the reader, when these sub texts are formed by omitting the marginal sentences; that is those that are not bonded to other sentences (when either two and three links equal one bond are considered).

Aim 2

To what degree are the sub texts intelligible to the reader when these sub-texts are formed by including the central sentences, those that have the highest frequency of bonds with other sentences (when either two and three links equal one bond are considered).

Aim 3

To what degree are the sentences that have the highest frequency of bonds with consecutive sentences (when either two and three links equal one bond are considered) intelligible a) as topic opening sentences and b) in forming sub-texts with the sentences with which they highly bond.

Aim 4

To what degree are the sentences that have the highest frequency of bonds with previous sentences (when either two and three links equal one bond are considered) intelligible a) as topic closing sentences and b) in forming sub-texts with the sentences with which they highly bond.

Operationally, cohesion refers to the bonded pairs of sentences in the EFL texts and coherence to the clarity (or intelligibility) of the organization (or linking) of the ideas in the EFL texts (simply stated: do the ideas make sense).

II. Procedure for Selecting the Texts

A random sample of eight texts was selected from the 40 D1 (4 texts - 1 high and 1 low written by students whose high school study language is English and another 1 high and 1 low written by students whose high school study language is French) and the same students' texts selected from the 40 D2. Shorter texts (referred to as sub-texts hereafter) were produced from these texts according to details in steps 1-4 below. The sub-texts were typed (see Appendix K) each with specific evaluation instructions, identified only by a code number and placed in random order.

III. Procedure for Re-Evaluating the Texts

In October, 1996, the two raters (experienced F1 EFL teachers) holistically evaluated the texts as percentage scores 'blindly' on separate occasions; that is, not knowing which were the high or low texts or which had been written by the French educated or English students nor whether they were D1 or D2 texts. Other details pertaining to the texts are given below as they relate to each part of the evaluative procedure. The procedure for reproducing and re-evaluating the texts consisted of a pre-step and four steps described below.

A. Pre-step   The eight texts as a whole.

The purposes of this pre-step was to find out whether the texts were 1) reassessed at the same level they had been originally and 2) to check for any correlation between the holistic reassessment of the texts for organization and the initial holistic mean percent scores. A third purpose was to calculate the percent number of marginal and central sentences for the

following texts (pre-requisite for steps 1 and 2 below) to check for any patterns when a) two

links equal one bond and b) three links equal one bond which then gave a total of sixteen texts.

> 2 D1 texts - 1 high and 1 low (English as study language)
> 2 D2 texts - 1 high and 1 low (English as study language)
> 2 D1 texts - 1 high and 1 low (French as study language)
> 2 D2 texts - 1 high and 1 low (French as study language)

Data was put on the SPSS spreadsheet for statistical testing. The findings of this pre-step

concerning marginal and central sentences will be outlined under step 1 (Section IV.B.) and

step 2 (Section IV.C.) respectively.

B. Step 1 The sub-texts omitting the marginal sentences (those that had no bonds with either consecutive or previous sentences). (see Aim 1, Section I)

When the sample of 80 texts was considered, results indicated that approximately 17-28%

(when two links equal one bond) and between 47-68% (when three links equal one bond)

sentences are not bonded in either D1 and D2 by level or study language at the same level (see

Appendix O). Hoey (1991a) mentions that this high number of unbonded sentences is not

unusual.

> "It is not unusual for over fifty percent of sentences to be marginal by the criterion
> we have used, and for these texts, as for this one, the effect of omission is to produce
> a shorter version of the original that is representative and readable." (p.113)

To determine which sentences in the eight texts had no bonds with either consecutive or

previous sentences and thus are marginal, data were obtained from the coordinate (or referred

to as the bond) matrices (see Chapter Seven and Appendix N) of each of the eight texts for

two links equal one bond and for each text when three links equal one bond were considered.

Once the marginal sentences were identified, 16 sub-texts were formed omitting them (See

Appendix K). Raters were requested to holistically evaluate how well the ideas in these sub-

texts were organized coherently (made sense) in the order given. Because protocol

evaluations were not carried out where each evaluator would discuss exactly how the texts

were rated, it is not certain how precisely they took the above explanations of coherence

between related sentences of parallelism and lexical processes into account (see Section I.

earlier). However, for this preliminary study it was sufficient to have them rate the sub-texts

as being clear or making sense. The scores were put on the SPSS spreadsheet for statistical

analysis.

C. Step 2 The sub texts including only the central sentences (identified as those that had a minimum of two bonds between pairs of sentences) (see Aim 2, Section I).

According to Hoey's (1991a) calculations, the number of bonds a sentence needs to have in order to consider it central depends upon the texts being analyzed. In the Political Text that he analyzed, two thresholds of central sentences were identified; one with five bonds per sentence and the second nine (see Chapter Seven). It was found, however, that the sub-text formed including only the sentences with a minimum of five bonds and above was more coherent than the second that included those with a minimum of nine and above. Based on Hoey's system of calculation to determine the threshold of bonding for centrality, the same was carried out based on the data for the 80 texts used in the present study in order to obtain a criterion to be applied to the sixteen texts in question. The data showed that if sentences with a minimum of one bond and above are considered central then this would be the same as omitting the marginal sentences in step 1. If higher than a minimum of two bonds are considered central whether in D1 or D2 or when two or three links equal one bond are considered, very few sentences would be included at both high and low levels (see Chapter Seven). Therefore, sentences with a minimum of two bonds were considered central for the texts in this study.

To determine which sentences in the sixteen texts had a minimum of two bonds with either consecutive or previous sentences and thus are central, data were obtained from the coordinate (or bond) matrices of each of the eight texts for two links equal one bond and the eight texts when three links equal one bond were considered (see Chapter Seven for Text 1 and Appendix N). The two raters holistically evaluated each of these sub-texts formed for how coherently the ideas were organized. Data was put on the SPSS spreadsheet for statistical testing.

D. Step 3 One to three sentences that had the highest number of bonds with consecutive sentences (topic introducers) were identified and the sub- texts that were formed (see Aim 3, Section I)

Before the procedure for this step is described (section 2 below) and to show its significance in the teaching/learning of the essay, a pre-step to step 3 was carried out. This is explained in section 1 below.

1. Bonding over Paragraphs and between Paragraphs

Since the Freshman essay (as taught at LAU) is normally composed of three major types of paragraphs, the introduction (N=1), the body (N=1-2), and the concluding (N=1) paragraphs, it was interesting to investigate the frequency of bonds according to paragraphs.

The purpose of this study was to see which paragraph types bonded highly and whether there was any relation between this bonding and the three part essay format taught in the classsroom. The investigation was carried out on the sample of 80 texts used in the present study according to the frequency of bonds 1) the sentences in each type of paragraph had with consecutive sentences (whether they were in the same type of paragraph or not) and 2) the sentences in each type of paragraph had with the sentences in each of the other type of paragraphs.

The results indicated that when bonding was considered over paragraphs (a) from introduction to body to conclusion, b) from body to conclusion or c) from conclusion to the end) based on two and three links equal one bond in both the high and low rated texts the *body paragraphs* had the highest percent frequency of bonds with consecutive sentences (whether links were in the body paragaraphs or the concluding paragraph), the *introduction paragraph* the next highest frequency (whether links were in the introduction, body or concluding paragraphs) and the *concluding paragraph* the least. This pattern of bonding confirms the EFL methodology in teaching the composition in which the purpose of the introduction is to state new ideas, the body to develop them and the conclusion to summarize. Since these results also confirmed those obtained from the results between types of paragraphs (below), it was not found necessary to detail them in the study.

When the bonding was considered between paragraph types based on two and three links equal one bond, the *introduction* paragraph had the highest frequency of bonding with the body paragraphs, the *body* paragraphs had the second highest frequency of bonding with the concluding paragraph, and the *introduction* paragraph had the least bonding with the concluding paragraph (see Appendix O.III.). This also confirms the EFL methodology in teaching the composition where the body paragraphs develop the ideas opened in the introduction (and thus the most bonding) and the conclusion briefly closes them (and thus the least bonding).

It seemed that in the larger context of the text, the introduction paragraph functioned as a topic opener which was interestingly confirmed by the frequency of bonding it had with the body paragraphs. Also, there were no significant differences between bonding over and between paragraphs by text level or study language (except for a few instances) in both D1 and D2 (see Appendix O) which again confirm the three part essay format and also show that all students conform to this pattern similarly.

2. Bonding between Sentence Topic Openers and Consecutive Sentences

In the same context, it was further interesting to investigate whether there were sentences that were highly bonded with consecutive sentences that functioned as topic openers and their relative position in the text compared to that in teaching of the essay at LAU and other EFL programs. This constituted step 3 which was carried out in two parts:

a. Data were taken from the coordinate (or bond) matrices of the eight texts (see Appendix N) of the sentences (a sample between one and three) that had the highest number of bonds with consecutive sentences when two and three links equal one bond were considered. These sentences (N=34) are referred to as topic introducers or as topic sentences in EFL methodology. Once the sentences were identified, coded, and typed along with the sentences with which they bond highly, they were holistically evaluated by the two raters for how well they function as topic introducers or topic sentences for the text in question.

b. The sub-texts (N=34) formed by the topic introducers and the bonded consecutive sentences were then holistically evaluated by the two raters for how well the ideas are organized coherently over the text.

Data were put on the SPSS spreadsheet for statistical analysis.

E. Step 4 One to three sentences that had the highest number of bonds with previous sentences (topic closers) (see Aim 4, Section I.).

As part of the investigation of the frequency of bonding according to paragraphs (similar to those in Section D.1.earlier), data were also obtained on the frequency of bonds the sentences in each paragraph had with previous sentences (whether in the same paragraph or with previous paragraphs). Bonding between types of paragraphs was not found necessary. The purpose of this investigation was to find if there were any relations between frequency of bonding with previous paragraphs and the EFL methodology in teaching the composition in the classroom.

The results indicate that the highest frequency of bonds appeared between sentences in the body paragraphs and the previous sentences (whether they are in the body or introduction paragraphs), the next highest between the sentences in the concluding paragraph and the previous sentences (whether they are in the concluding paragraph, body or introduction paragraphs), and the least bonding was found between sentences in the introduction and those that are previous in the same paragraph. These findings also confirm the previously discussed common EFL method of teaching the composition in the classroom in that the concluding paragraph is summative and therefore would have higher bonds with earlier sentences than the

introduction paragraph. The highest frequency of bonding in the body paragraphs with previous sentences suggests that there are topic closing statements or concluding sentences to ideas that were developed earlier and needed 'concluding' before the final conclusion is given which also confirms the composition EFL methodology. Also, there were no significant differences between bonding over and between paragraphs by text level or study language in both D1 and D2 (see Appendix O) which again confirm the three part essay format and also shows that all students conform to this pattern similarly. It seemed that in the larger context of the text, the concluding paragraph functioned as a topic closer which was confirmed by the frequency of bonding it had with the body and introductory paragraphs. Since these results confirmed those obtained with consecutive sentences, it was not found necessary to include them in detail.

In the same context, it was interesting to investigate whether there were sentences that were highly bonded with consecutive sentences that functioned as topic closers and their relative position in the text. This constituted step 4 which was carried out in two parts:

1. Data were taken from the coordinate matrices of the eight texts (see Appendix N) of the sentences (a sample between one and three) that had the highest number of bonds with previous sentences when two and three links equal one bond were considered. These sentences (N=26) are referred to as topic closers or as concluding sentences in EFL methodology. Once the sentences were identified, coded, and typed along with the sentences with which they bond highly, they were holistically evaluated by the two raters for how well they function as topic closers or concluding sentences for the text in question.

2. The sub- texts (N=26) formed by the topic closers and the bonded previous sentences were then holistically evaluated by the two raters for how well the ideas are organized coherently over the text.

Data were put in the SPSS spreadsheet for statistical analysis.

IV. Results and Discussion

The results and discussion of the further investigations on the contribution of cohesion to coherence are given below according to the pre-step and four steps outlined above.

A. Pre-Step - Relation between Initial Holistic Text Ratings and Holistic Ratings of Text Organization

The results in Table 10.1 indicate the holistic assessments of the selected eight texts according to 1) a re-evaluation of the organization of the texts by two raters (R1 and R2) and the mean percent of their scores and 2) the holistic score that was given to the texts as part of

the initial evaluation of the Freshman I 202 texts in the first semester of the academic year 1993-94, specifically in October 1993 for D1 texts and January 1994 for D2 texts. The scores show that all texts were re-evaluated at the same level as they had initially been and maintained the same level of high or low ratings.

Table 10.1 Holistic Ratings of Texts - Initial and Re-Evaluations by Study Language at the Same Level in D1 and D2

Texts	Re- Evaluation			Initial Eval.
N=8	Text Organization			Whole Text
	R1	R2	Mean %	Mean %
1. ELT	60.00	70.00	65.00	62.50
2. ELT	62.00	65.00	63.50	62.50
3. FLT	60.00	60.00	60.00	52.50
4. FLT	65.00	70.00	67.50	59.00
5. FHT	70.00	75.00	72.50	80.00
6. FHT	70.00	80.00	75.00	75.00
7. EHT	75.00	85.00	80.00	80.00
8. EHT	75.00	85.00	80.00	83.00

1,3,5,7 = Diagnostic 1 Texts
2,4,6,8 = Diagnostic 2 Texts
R1 = % score of first rater
R2 = % score of second rater
ELT = *Low Text* written by a student whose high school study language is *English*
FLT = *Low Text* written by a student whose high school study language is *French*
EHT = *High Text* written by a student whose high school study language is *English*
FHT = *High Text* written by a student whose high school study language is *French*

A Spearman Correlation Statistical Test carried out on the relation between R1 and R2 scores showed a positive coefficient of .9264 which was very highly significant with p=.001 indicating that the ratings were highly reliable and therefore indicative of the text levels according to coherent organization of ideas. There was also a positive correlation of .9152 between the mean percent scores on the coherence of the texts of the R1 and R2 and the initial mean percent holistic scores of the texts which was very highly significant with p=.001 indicating that the two sets of ratings three years apart not only confirmed the level of the texts but also showed internal reliability between the scoring of the whole text and that of organization.

This pre-step was necessary in order to establish that the texts were still rated at the same levels and that the over all organization of the texts was coherent so that any correlations between the former and evaluations on sub-texts would be meaningful.

B. Step 1 - Forming Sub-Texts by Omitting the Marginal Sentences

As was noted under the pre-step procedure (see Section III.A.), the percentage of marginal versus non marginal sentences was calculated for the selected eight texts to check for any patterns. A close reading of the texts when the marginal sentences were identified (see Appendix K) show that they mainly focused on specific ideas such as developing the ideas by elaboration and illustration in contrast to the non-marginal that were mainly general in ideas.

The results in Table 10.2 indicate that the HT and the LT showed the same general bonding patterns. When two links equal one bond were considered, all texts indicated an approximate 71-87% non-marginal rate and a 12-28% marginal rate with the HT showing more non-marginal sentences. This seems to suggest that the HT are more densely bonded. When three links equal one bond were considered, all texts showed a similar pattern of an approximate 32-38% of non-marginal sentences and an approximate 61-68% of marginal sentences. This obviously shows that when the threshold of linking is raised, the bonding is less dense. Also, when the study language was considered at the same level, the FLT showed fewer marginal sentences in comparison to those of the ELT suggesting that the French educated students' texts are more densely bonded than that of the English educated at the same level. This is not surprising considering the French educated students have the advantage of a wider vocabulary if they draw on French cognates in their English as was confirmed through the student interviews. There didn't seem to be much difference between study language in the high texts.

Although testing of significance was not carried out, the results seem to indicate that texts are less densely bonded when three links equal one bond perhaps suggesting at this point that two links equal one bond may be the threshold criterion for bonding for the EFL texts in question.

Table 10.2   Percent Frequency of Marginal/Non Marginal Sentences in D1 and D2 by Level and Study Language

N=16	Marginal Sentences				Non Marginal Sentences			
	3links = 1bond		2links = 1bond		3 links = 1bond		2 links = 1bond	
Level	D.1	D.2	D.1	D.2	D.1	D.2	D.1	D.2
HT	66.96	67.55	12.18	23.77	33.05	32.46	87.83	76.24
LT	61.15	66.39	28.93	21.39	38.85	33.61	71.08	78.61
S.Lang.								
English								
HT	60.00	66.67	20.00	21.21	40.00	33.33	80.00	78.79
LT	76.47	77.78	41.18	27.78	23.53	22.22	58.82	72.22
French								
HT	73.91	68.42	4.35	26.32	26.09	31.58	95.65	73.68
LT	45.83	55.00	16.67	15.00	54.17	45.00	83.33	85.00

Marginal sentences contain no bonds; non marginal contain a minimum of one bond each

Based on the results in Table 10.3 and 10.4, the texts when the marginal sentences were omitted indicated satisfactory coherent ratings. Details are explained below.

Table 10.3   Holistic Scores of the Sub-Texts Formed by Omitting the Marginal Sentences by Study Language at the Same Level in D1 and D2

Texts	3 links = 1 bond		2 links = 1 bond	
N=16	R1	R2	R1	R2
1. ELT	70.00	60.00	62.00	50.00
2. ELT	65.00	50.00	75.00	65.00
3. FLT	55.00	55.00	55.00	60.00
4. FLT	75.00	60.00	68.00	75.00
5. FHT	60.00	60.00	75.00	90.00
6. FHT	60.00	65.00	80.00	70.00
7. EHT	65.00	70.00	70.00	80.00
8. EHT	75.00	70.00	75.00	85.00

1,3,5,7 = Diagnostic 1 Texts
2,4,6,8 = Diagnostic 2 Texts
R1 = % score of first rater
R2 = % score of second rater

Table 10.4   Mean Percent Holistic Scores of the Sub-Texts by Omitting the Marginal Sentences by level in both D1 and D2 Texts

Texts	3 links = 1 bond		2 links = 1 bond	
	Mean	St.Dev.	Mean	St.Dev.
High N=8	65.63	5.54	78.13	3.75
Low N=8	61.25	5.95	63.75	8.13

1. Although there was a positive correlation between R1 and R2 scores in Table 10.3 when three links and two links equal one bond of .3375 and .5123 respectively, the coefficients were not significant, p=.414 and p=.194 respectively.   Similar results were obtained when correlations were carried out separately by level.   Perhaps this is due to the fact that the criteria for the coherence of organization of ideas used by the raters to evaluate the texts was not very precise.   In fact, the raters commented that it was difficult to assess holistically so many sub-texts that were very similar in content.   This procedure had not been carried out previously in the English Program and if it were to be repeated, more analytic criteria would need to be outlined and practice sessions prior to the evaluation sessions would be required.

The fact, however, that the relations between the scores of R1 and R2 were not significant does not necessarily underscore the importance of the findings.   Hoey in this context mentions that level of coherence between bonded pairs will vary according to the readers' "...different thresholds of acceptability of pairings" (1991a, p.160) and concludes with optimism that

"Since assessments of coherence and relatedness canot avoid being indeterminate, this is not of importance as long as there is a broad measure of agreement about the majority of pairings" (p.160). Table 10.3 indicates that all the texts were rated for some degree of coherence of organization of ideas which suggests that the texts without the marginal sentences did make some sense to the raters and, therefore, this confirms Hoey's claim that bonded sentences are intelligible together.

2. The results in Table 10.4 indicate that the high rated sub-texts had a higher mean percent rating of coherence of ideas than that of the low rated sub-texts when both three and two links equal one bond were considered with the latter higher. A Mann-Whitney Statistical Test was carried out between the high and low rated sub-texts and results indicated a significant difference when two links equal one bond ($z=-2.3233$; $p=.0202$) but not when three links equal one bond ($z=-1.0164$; $p=.3094$). This confirms the initial holistic scores and suggests that the sub-texts formed by omitting the marginal sentences were more intelligible at the high level than at the low, not a surprising finding. At both levels, however, the sub-texts formed when two links equal one bond were considered, were rated higher than those when three links equal one bond were considered suggesting that bonds formed by two links is a better threshold of linkage for contributing to the coherence of the text than three for the EFL texts in question. This finding also confirms the general results obtained. in comparing the percentage of marginal versus non marginal sentences in the texts above.

3. Spearman Correlations carried out between initial holistic scores and R1 and R2 mean percent scores on the same texts for coherent organization of ideas indicated positive coefficients, but these were only significant when two links equal one bond were calculated ($\rho=.8061$, $p=.016$) but not when three links equal one bond were calculated ($\rho=.5394$, $p=.168$). This suggests that two links equal one bond is perhaps a better threshold for the EFL texts in question.

4. Spearman Correlations were also carried out between R1 and R2 mean percent scores on the same full texts for coherent organization of ideas and R1 and R2 mean percent scores of sub-texts for the same when the marginal sentences were omitted. Results indicated positive coefficients being higher when two links equal one bond rather than three were considered; $\rho=.6205$, $p=.101$ and $\rho=.4480$, $p=.220$ respectively. Although the results were not significant, the fact that the coefficients were positive indicates that there is a positive relation between the organization of the whole text and when the marginal sentences were omitted again confirming the initial scores. The coefficient being higher when two links equal one

bond were considered indicates again that this is probably a better threshold of bonding for coherence when marginal sentences are omitted.

C. Step 2 Forming Sub-Texts by Including only Central Sentences

As was also noted under the pre-step procedure, the percentage of central versus non central sentences was calculated for the selected eight texts to check for any patterns. A close reading of the texts when the central sentences were identified (see Appendix K) show that they focused mainly on general rather than specific ideas.

The results in Table 10.5 indicate that both high and low rated sub-texts had similar patterns. When two links equal one bond were considered, the high and low texts had an approximate 60-67% central sentences and 32-48% non-central sentences. When three links equal one bond were considered, there was an approximate 8-20% percent central and 79-91% non-central. The scores were very similar except for the low texts having a very low frequency of central sentences on D1 which was more apparent in the English Low Texts when three links equal one bond suggesting less bonding density. Although testing of significance was also not carried out on this data, the finding also confirms those in step 1 in that the low texts seemed to show less bonding density than in the high texts and that two links equal one bond seemed to be the threshold for the EFL texts in question.

**Table 10.5   Percent Frequency of Central/Non Central Sentences in D1 and D2
by Level and Study Language**

N=16	Central Sentences				Non Central Sentences			
	3 links=1 bond		2 links=1bond		3 links=1bond		2 links=1bond	
Level	D.1	D.2	D.1	D.2	D.1	D.2	D.1	D.2
HT	20.81	18.10	67.64	60.77	79.20	81.90	32.36	39.24
LT	8.34	20.56	64.11	62.50	91.67	79.45	48.16	37.50
S.Lang								
English								
HT	28.57	15.15	65.71	63.64	71.43	84.85	34.29	36.36
LT	0	11.11	41.18	50.00	100	88.89	58.82	50.00
French								
HT	13.04	21.05	69.57	57.89	86.96	78.95	30.43	42.11
LT	16.67	30.00	62.50	75.00	83.33	70.00	37.50	25.00

Central sentences contain a minimum of 2 bonds each
Non central sentences contain from 0 - 1 bond each

The results in Tables 10.6 and 10.7 indicate the holistic scores of the raters (R1 and R2) of the coherence of the organization of ideas and the mean percent scores respectively of the

sixteen sub-texts formed by including only the central sentences (those with a minimum of two bonds with either consecutive or previous sentences in the text).

Table 10.6 Holistic Scores of the Sub-Texts Formed by Including only the Central Sentences by Level and Study Language in D1 and D2

Texts	3 links = 1 bond		2 links = 1 bond	
N=16	R1	R2	R1	R2
1. ELT	50.00	50.00	60.00	50.00
2. ELT	60.00	50.00	80.00	85.00
3. FLT	55.00	55.00	60.00	60.00
4. FLT	60.00	50.00	65.00	70.00
5. FHT	60.00	50.00	75.00	70.00
6. FHT	60.00	65.00	60.00	65.00
7. EHT	72.00	60.00	75.00	80.00
8. EHT	70.00	65.00	78.00	65.00

1,3,5,7 = Diagnostic 1 Texts
2,4,6,8 = Diagnostic 2 Texts
R1 = % score of first rater
R2 = % score of second rater

Table 10.7 Mean Percent Holistic Scores of the Sub-Texts by Including only the Central Sentences by Level in D1 and D2 Texts

Texts	3 links = 1 bond		2 links = 1 bond	
	Mean	St.Dev.	Mean	St.Dev.
High N=8	62.75	5.58	72.25	6.85
Low N=8	53.75	2.50	66.25	5.58

Based on the data in Tables 10.6 and 10.7, the following results were obtained:

1. There were positive correlations between R1 and R2 scores by study language at the same level when three links equal one bond of .5034 and two links equal one bond of .9200, but the coefficient was only significant in the latter at p=.001 and not in the former (p=.203). Similar results were obtained when correlations were carried out separately by level. It seems that that there were more difficulties in evaluating the texts when three links equal bond. Again, more practice sessions would need to be carried out to ascertain if the result is an effect of marking or of bonding.

As in step 1 (Section IV.B.), each of the raters did find a degree of coherence in the texts. A look at Table 10.7 indicates that all the texts were rated for some degree of coherence of organization of ideas which suggests that the texts without the non-central sentences did make some sense to the raters and, therefore, again confirms Hoey's claim that bonded sentences are intelligible together; in this case those that have a minimum of two bonds.

If a comparison is to be made between the mean percent scores of the texts when the marginal sentences were omitted and the mean percent scores of the texts when only the central sentences are included, Tables 10.5 and 10.7 indicate that the higher means in general were obtained when the marginal sentences were omitted. This suggests that the sub-texts formed by the latter were rated as being more coherent.

2. The results in Table 10.7 indicate that the high rated texts had a higher mean percent rating of coherence of ideas than that of the low rated sub-texts when both three and two links equal one bond were considered with the latter being higher. A Mann-Whitney Statistical Test was carried out between the high and low rated sub-texts and results indicated a significant difference when three links equal one bond (z=-1.9992; p=.0456) but not when two links equal one bond (z=-.8660; p=.3865). These results again confirm the initial holistic scores and suggest that the sub-texts formed by including only the central sentences were more intelligible at the high level than at the low. At both levels, however, the sub-texts formed when two links equal one bond were considered, were rated higher than those when three links equal one bond were considered suggesting that bonds formed by two links are a better threshold of linkage for contributing to the coherence of the EFL sub-texts in question than three is. This finding also confirms the general results obtained in comparing the percentage of central versus non central sentences in the texts above.

3. Spearman Correlations carried out between initial holistic scores and R1 and R2 mean percent scores on the same texts for coherent organization of ideas indicated positive non-significant coefficients when two and three links equal one bond were considered (ρ=.4940, p=.213; ρ=.6804, p=.063 respectively). This suggests that there is a relation between the text scores and the sub-text scores but it is not significant.

4. Spearman Correlations were also carried out between R1 and R2 mean percent scores on the same full texts for coherent organization of ideas and R1 and R2 mean percent scores of sub-texts for the same when only the central sentences were included. Results indicated positive coefficients, being higher and significant when three links equal one bond rather than two were considered; ρ=.7401, p=.036 and ρ=.3473, p=.399 respectively. The fact that the coefficients were positive indicates that there is a positive relation between the organization of the whole text and the sub-texts when only the central sentences were included with those texts based on three links equal one bond being significantly more related. These results again confirm the initial scores. The coefficient being higher when three links equal one bond were considered indicates that this is probably a better threshold of bonding for coherence than two

when central sentences are considered. Also, the results confirm that the sub-texts indicated certain degrees of coherence.

D. Step 3   *Sentences that had the highest frequency of bonds with consecutive sentences - Topic openers or sentences.*

The results in step three are given in two parts:

1. The Topic Openers (topic sentences)

a.   A Spearman Correlation statistical test carried out between R1 and R2 scores to investigate how well the sentences, as identified by the highest frequency of bonding with consecutive sentences, functioned as topic openers indicated a positive coefficient which was highly significant ($\rho=.5193$, $p=.002$). This indicated that the raters agreed on the degree to which the sentences functioned as topic sentences for the sub-texts they introduced.

b.   The results in Table 10.8 indicate the mean percent scores of the 34 sentences having the highest frequency of bonds with consecutive sentences (see Appendix K) that were identified from the eight texts in both high and low rated texts in D1 and D2 according to three and two links equal one bond.

Table 10.8   Mean Percent of Scores of the Topic Openers (Sentences)by Level in D1 and D2 Texts

Texts	3 links = 1 Bond			2 Links = 1 Bond		
	N	Mean	St.Dev.	N	Mean	St.Dev.
Diag. 1						
High	4	60.00	2.89	6	67.50	4.47
Low	3	67.00	12.11	6	67.17	6.58
Diag. 2						
High	2	71.25	19.45	5	66.30	6.40
Low	3	61.67	7.64	5	63.10	10.25
Total	12			22		

Diag.1 - 3 links $z=-1.1114$, $p=.2664$; Diag. 2 - 3 links $z=-.5774$, $p=.5637$
Diag.1 - 2 links $z=-.4053$, $p=.6852$; Diag. 2 - 2 links $z=-.9546$, $p=.3398$

The findings show that in general the topic opening sentences were considered by the raters to function at certain degrees as topic sentences for the sub-texts they introduced with the high-rated texts obtaining the higher scores. This confirms the original holistic evaluations of the whole text.   However, when the high and low rated text topic opening scores were compared, the results indicated in Table 10.8 showed no significant differences using the Mann-Whitney Statistical Test probably suggesting that both the high and low rated texts are still at a relatively 'low' proficiency level or that the bonding did not significantly distinguish between proficiency levels in topic sentences.

2. The Sub-Texts Formed by the Topic Openers and the Consecutive Sentences with which they highly bond

a. A Spearman Correlation statistical test carried out between R1 and R2 percentage scores of how well the ideas are organized coherently in the sub-texts consisting of the topic sentences and the consecutive sentences with which they highly bond indicated a positive coefficient which was very highly significant ($\rho=.6637$, p=.000). This indicated that the raters agreed on the degree of the coherence in the texts which was satisfactory (although more so when two links equal one bond were considered (see Table 10.9).

b. The results in Table 10.9 indicate the mean percent scores of the 34 sub-texts formed by the topic opening sentences and the consecutive sentences with which they bond highly in both high and low rated texts in D1 and D2 according to three and two links equal one bond.

Table 10.9 Mean Percent Coherence Scores of the Sub-Texts Formed by the Topic Opening Sentences and the Consecutive Sentences with which They Highly Bond in D1 and D2

Texts	3 links = 1 Bond			2 Links = 1 Bond		
	N	Mean	St.Dev.	N	Mean	St.Dev.
Diag. 1						
High	4	56.88	8.01	6	66.67	3.03
Low	3	65.83	18.76	6	67.33	7.12
Diag. 2						
High	2	55.00	7.07	5	59.30	7.66
Low	3	60.83	1.44	5	71.500	10.55
Total	**12**			**22**		

Diag.1 - 3 links z=-.7201, p=.4715 ; Diag. 2 - 3 links z=-1.2910, p=.1967
Diag.1 - 2 links z=-.1673, p=.8671 ; Diag. 2 - 2 links z=-1.7865, p=.0740

Based on the results in Table 10.9, the low rated texts indicated higher mean percent scores but the differences when compared to those of the high rated texts were not significant when the Mann-Whitney Statistical Test was applied. The mean scores were again higher when two links equal one bond were considered again suggesting this as a better criteron for coherence ratings for topic openers than three for the EFL sub-texts in question. That the high rated texts scored lower on the ratings when the sub-texts were considered may be that these texts are also considered 'low' proficiency level. However, coherence ratings were reasonably satisfactory.

Step 4 Sentences that had the Highest Frequency of Bonds with Previous Sentences - Topic Closing or Concluding Sentences

The results in step 4 are given in two parts:

1. The Topic Closing (or Concluding) Sentences

a. A Spearman Correlation statistical test carried out between R1 and R2 scores of how well the 26 sentences as identified by the highest frequency of bonding with previous sentences functioned as topic closers indicated a positive coefficient which was highly significant ($\rho=.5795$, $p=.002$). This indicated that the raters agreed that the sentences functioned as topic closers for the sub-texts they concluded ratings being satisfactory (see Table 10.10)

b. The results in Table 10.10 indicate the mean percent scores of the 26 sentences having the highest frequency of bonds with previous sentences (see Appendix K) that were identified from the eight texts in both high and low rated texts in D1 and D2 according to three and two links equal one bond.

Table 10.10   Mean Percent Scores of the Topic Closers Sentences in D1 & D2

Texts	3 links = 1 Bond			2 Links = 1 Bond		
	N	Mean	St.Dev.	N	Mean	St.Dev.
Diag. 1						
High	2	72.00	11.31	4	65.00	7.36
Low	3	65.00	13.23	4	69.38	10.08
Diag. 2						
High	2	68.75	12.37	5	66.00	7.20
Low	3	68.33	1.44	3	64.17	5.20
Total	10			16		

Diag.1 - 3 links $z=-.8885$, $p=.3743$; Diag. 2 - 3 links $z=-.0000$, $p=1.000$
Diag.1 - 2 links $z=-.7260$, $p=.4678$; Diag. 2 - 2 links $z=-.1509$, $p=.8801$

The findings show that in general the topic closing sentences were considered by the raters to function at certain degrees as concluding sentences for the sub-texts they concluded with the high-rated texts in the initial evaluation obtaining the higher scores. This confirms the original holistic evaluations of the whole text. However, when the high and low rated text scores were compared, the results indicated in Table 10.10 showed no significant differences using the Mann-Whitney Statistical Test probably suggesting that both the high and low rated texts are still at a relatively 'low' proficiency level. Also, in most cases, three links equal one bond showed the higher ratings indicating that for the concluding sentences this is a better criteria.

2. The Sub-Texts Formed by the Topic Closing Sentences and the Previous Sentences with which they Highly Bond

a. A Spearman Correlation statistical test carried out between R1 and R2 scores of how well the 26 sentences (as identified by the highest frequency of bonding with previous sentences)

functioned as topic closers indicated a non significant positive coefficient (ρ=.3208; p=.110). This shows that the raters agreed that the sentences functioned as topic closers for the sub-texts they concluded but not significantly.

b. The results in Table 10.11 indicate the mean percent scores of the 26 sub-texts formed by the topic closing sentences and the previous sentences with which they bond highly in both high and low rated texts in D1 and D2 according to three and two links equal one bond.

Table 10.11 Mean Percent Coherence Scores of the Sub-Texts Formed by the Topic Closing Sentences and the Previous Sentences with which They Highly Bond in D1 & D2

Texts	3 links = 1 Bond			2 Links = 1 Bond		
	N	Mean	St.Dev.	N	Mean	St.Dev.
Diag. 1						
High	2	75.00	7.07	4	68.75	1.89
Low	3	70.00	12.99	4	67.50	9.13
Diag. 2						
High	2	66.25	1.77	5	66.00	5.18
Low	3	65.00	5.00	3	65.83	10.10
Total						

Diag.1 - 3 links z=-.5923, p=.5536 ; Diag. 2 - 3 links z=-.2962, p=.7671
Diag.1 - 2 links z=-.0000, p=1.0000 ; Diag. 2 - 2 links z=-.0000, p=1.0000

Based on the figures in Table 10.11, the high rated texts indicated higher mean percent scores but the differences when compared to those of the low rated texts were not significant when the Mann-Whitney Statistical Test was applied. The mean scores were again higher in most cases when two links equal one bond were considered again suggesting this as a better criteron for coherence ratings for topic closing sentences and the sentences they bond with than three for the EFL sub-texts in question. That the high rated texts scored higher on the ratings when the sub-texts were considered again confirms the initial holistic ratings.

General Discussion

1. The two raters agreed in general that the sub-texts formed had a certain degree of coherence in the organization of ideas in that they were related and intelligible. They also agreed that the topic openers and topic closers functioned as topic sentences and concluding sentences respectively.

2. When the marginal sentences were omitted in both the high texts and low texts the summaries that were formed were in general rated more coherent when 2 links equal 1 bond were considered. It was noted that the marginal sentences were specific in content and included examples and further developments of the main ideas.

3. When only the central sentences were included, brief coherent sub-texts were produced and again the 2 links equal 1 bond texts were more coherent than when the 3 links equal 1 bond texts were considered.

4. When the topic opening sentences were selected, in all texts, they were clearly introductory and introduced main ideas that needed development. When the sentences that they were bonded highly with were placed with the topic opening sentence, brief coherent sub-texts or summaries of the whole texts were formed.

5. When the topic closing sentences were selected in all the texts, they clearly were conclusive and summative and formed brief coherent summaries with the previous sentences they highly bonded with of the whole texts.

The general findings not only confirm the initital holistic ratings, but they also confirm the claim made that bonded sentences are intelligible together. A further finding that is also confirmed is that different summaries of any one text which focus on different aspects of the content are possible. It is left for future research to follow through with analyzing more substantial numbers of texts to substantiate that coherent summaries can be formed by the bonded sentences and to find whether there are any significant differences among them and those formed by the same and different populations in the same and different genres.

V. Suggested Model of the Relationship between Lexical Cohesion and Coherence

A number of observers have commented that there are no principled connections in texts between cohesion and coherence. That is, cohesive features are part of the text, but they do not necessarily make a text coherent. Some studies have attempted to correlate frequency counts of cohesive features with the whole text but the results in most of the cases no significant relations were found. (see Chapter Five).

The major reason suggested is that perception of coherence depends on world knowledge or access to schemas related to text content and therefore, while coherence might be signalled in a text, this is not required. Cohesion, in contrast, lies by definition on the surface of a text and can be identified by lexical and grammatical patterns. One overlap between cohesion and coherence can be identified through lexical signalling, when coherence structures are 'labelled' by cohesive devices such as conjunctions (such as *and, but, therefore*, etc.) and lexical 'labels' (such as 'situation', 'problem', 'solution' or synonyms for such structures which are found in the text (Winter, 1974, 1979; Jordan, 1984; Hoey, 1991a). Following Hoey (1991a) and the present research, this area of overlap may be tentatively further specified as suggested below.

The limiting factor in previous research on the relation between cohesion and coherence (and inevitably writing quality) is perhaps that the relations were attempted between the cohesive features and the *whole* text. While cohesive features may contribute to the coherence of the text through signalling and lexical labels, they can not be equated with the whole text coherence. This would be equating a part with the whole - there are aspects of coherence which may not be signalled or labelled. Even if a count of cohesive features correlated with text coherence as a few studies indicated, the relationship was not very strong.

Thus, to see the relationship or the contribution of cohesion to text coherence a different perspective should be taken into account. One such perspective is to see how cohesion *overlaps* with coherence in the text and to look at more specific features of cohesion according to the genre and purpose of the writing task. The present study was such an attempt.

In reference to the above bonding patterns, it was found that coherent sub-texts were formed from bonded pairs of sentences. If this is the case, then the relationship between cohesion, in this case lexical cohesion, and coherence might be specified in terms of the strength of the lexical nets (interrelation between the bonds) and the coherence of the text. This can be validated by reader evaluation, in the present case, this was carried out by experienced teachers. This relationship is diagramed in the model below (Figure 10.1). The stronger the bonding, the wider the area of shaded overlap in the diagram is, and the stronger the relationship between the lexical cohesion and the coherence of the text.

Figure 10.1 Suggested Model of the Relationship between Lexical Cohesion and Text Coherence
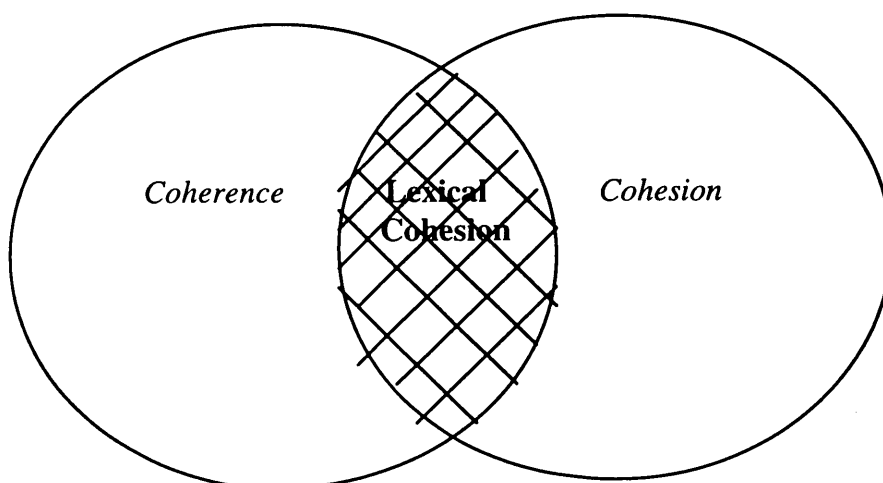
Thus, it is the bonding over the whole text (discourse level) that contributes to coherence and not simple counts of cohesive categories. Thus, holistic scoring of either cohesion and coherence or simple frequency counts of cohesion may not be valid scoring instruments to use when relating cohesion to coherence unless they take into account the larger patterns over texts.

On the present evidence, this remains a tentative suggestion. No broad generalization can be made as a much larger sample is needed and perhaps a comparison in different genres. Other researchers may be tempted to bond their work with the present one and explore this relationship between lexical cohesion and coherence.

Chapter Ten concludes the lexical analysis of the texts which in general showed lexical cohesion to be a worthwhile element to explore. The implications of the results for the teaching/learning of compositions will be explored in Chapter Twelve. The following chapter will focus on live interviews with a sample of the students who wrote the texts. The relation of their comments to the lexical cohesion analysis of the texts will be given as well as the implications of their comments to the teaching/learning of compositions.

CHAPTER ELEVEN

STUDENT INTERVIEWS

*"You would know in words that which
you have always known in thought."*
Gibran, The Prophet

This chapter will report on the results of interviews carried out with a sample of 26 students out of the 40 students who wrote the Diagnostic 1 and 2 texts. The interviews will be divided into two parts. The first part will give some demographic information on the interviewees and the second part will present and discuss the results of the interview. Before this, the *purpose* of the interview, the *selection* of the interviewees and the *procedure* of the interview will be reported on.

I. Purpose of the Interview

It was considered significant after the foregoing work in text analysis to have some real life contact with the students who wrote the texts used in the present study. Specifically, it would be interesting 1) to obtain their opinions on the English course in general and their writing skills in particular, 2) to see if any parallels could be drawn between the results of the lexical cohesive text analysis and their comments and 3) to incorporate any suggestions from their comments into recommendations for the improvement of the teaching/learning situation for the essay. The researcher interviewed the students between October 1995 and January 1996 after a two and half year period had passed since the writing of the diagnostic texts because it was felt after such a time students would have completed all their English course work and they would therefore have a better understanding of the development of their English skills. Also, it was important to obtain their comments before they graduated from the university.

II. Selection of the Interviewees

The selection of the interviewees was to be made from the maximum feasible number among the 40 students whose texts were analyzed, and so the researcher set about trying to contact each one. It must be emphasized that the interview as a research method is not an easy one to use in Lebanon as students view interviews with some suspicion: many see an interview as a type of checking up by the teacher that might influence their course grades or their stay at the university. The researcher had to speak to each student personally and reassure each one that the interview was only for research purposes, that it was confidential,

and that any results would be presented using pseudonyms. Anticipating student reluctance and suspicion about the interview, the researcher chose an interview format with predominantly closed questions in the belief that these would be relatively easy to answer and non-threatening (see Appendix P). Out of the 40, 26 responded (13 of whom had written the HT and 13 the LT). This seemed a good number, considering many students' hesitancy. Two of the students who had written the LT had already been suspended from the university for poor academic performance, and a few others had left the university, while still a few others who were finally contacted in the Spring 1996 semester couldn't be interviewed due to the political situation in the country in the crisis of South Lebanon.

The interviews were carried out in a classroom since the office was considered too formal a setting. All interviews were taped (see Appendix Q) with the students' consent although the researcher again explained that the tape would only be used for research purposes. Even research in linguistics is a novel concept to many which was also very generally explained. Students were told the purpose of the research, that the interview would be kept confidential, and that it would not affect their course of study in any way. Also, that they were free not to answer any question they did not want to. Interviews were carried out in a relaxed and pleasant manner. In general, the students who came were eager to participate and to give their comments in the hope that the Freshman English course would be improved. Some of them felt complimented that their suggestions were asked for and might be taken into account.

III. Procedure of the Interview

The procedure of the interview was kept simple. A pilot interview was carried out first on several students and the wording of some questions were rephrased more clearly and other questions were added (see Appendix P). The 15 minute interview with each student was in two parts described below.

A. Part 1 was composed of a guided interview with closed questions on the English course and specifically on the writing skill (see Appendix P). The researcher asked the questions and noted the answers on the interview sheet. Any additional comments made by the student were noted. They appear under Part I in the interview transcripts (see Appendix Q). Demographic information on the students' background is also included.

B. Part 2 was made up of one open question on how the Freshman English course could be improved with particular reference to writing.

The **analysis** of the results was carried out in two steps. The *first step* entailed coding the raw data of the guided interview and inputting the information on the SPSS spreadsheet and

carrying out the relevant statistical tests for analysis. Frequency tables were made for the results of analysing each question and the Mann Whitney Statistical Test was used to test for any significant differences in students' comments by the students' text level and study language. The *second step* entailed analysing the record of the interviewees' comments and reporting common points. These are given in Section V. later. Relevant background on the interviewees are given first.

IV. Demographic Background on Interviewees

The data in Tables 11.1 to 11.6 show some background information on the students that were interviewed, presented according to their text levels of high and low.

A. Sex: Table 11.1 shows that the majority of the HT students were female, 76.92% and the majority of the LT students were male, 76.92%. This is usually the case in the English courses.

Table 11.1 The Sex of the Interview Sample

Students' Sex	H		L	
	N	%	N	%
Female	10	76.92	3	23.08
Male	3	23.08	10	76.92

B. Nationality: Table 11.2 shows that the majority of HT and LT students were Lebanese, 61.54% and 92.3% respectively. It seems that there are more foreign students in the HT group.

Table 11.2 The Nationality of the Interview Sample

Students' Nationality	H		L	
	N	%	N	%
Lebanese	8	61.54	12	92.3
Lebanese American	2	15.4	1	7.7
Lebanese Australian	1	7.7	0	0
Lebanese Greek	1	7.7	0	0
United Arab Emirates	1	7.7	0	0

C. Study Language: Table 11.3 shows that the majority of the HT students are English educated, while the majority of LT students are French educated, 61.5% and 84.6% respectively.

Table 11.3   The Study Language of the Interview Sample

Students' Study Lang.	H		L	
	N	%	N	%
English	8	61.5	2	15.4
French	5	38.5	11	84.6

D. First Language: Table 11.4 shows that both HT and LT students were native speakers of Arabic, 61.54% and 92.3% respectively, the HT students had a higher percentage of students who were native speakers of foreign languages, English and French. It is apparent that in Lebanon one's nationality does not necessarily determine one's native language. One HT student is bilingual, which is also common in Lebanon

Table 11.4   The First Language of the Interview Sample

Students' First Lang.	H		L	
	N	%	N	%
Arabic	8	61.54	12	92.3
Arabic/English	1	7.69	0	0
English	3	23.08	0	0
French	1	7.69	1	7.7

E. Major: Table 11.5 shows that business majors are the highest percentage of HT students while engineering and computer sciences majors make up the highest percentages of the LT students. However, in general, the interviewees' majors are representative of the majors in the 202 population and study sample of 40 students.

Table 11.5.   The Majors of the Interview Sample

Students' Majors	H		L	
	N	%	N	%
Engineering	1	7.7	4	30.8
Computer Science	1	7.7	5	38.5
Interior Design	2	15.4	1	7.7
Pharmacy	0	0	1	7.7
Business	6	46.2	2	15.4
Communication Arts	3	23.1	0	0

F. GPA.: Table 11.6 shows that the HT students have a higher mean Cumulative Grade Point Average than the LT students, 3.05 and 2.68 respectively at the time of the interview. Interestingly, this confirms that the Diagnostic 1 holistic scores are representative of the students' level in their major courses, even at the end of the students' studies at the university.

Table 11.6. The Cumulative Grade Point Averages (CGPA) of the Interview Sample

Students by Text Level	Mean	Std.Dev.
HT	3.0	.46
LT	2.6	.28

All in all, the background of the students in the interview sample is very similar to that of the 202 overall sample and the 40 study sample.

V. Results and Discussion of the Interview Questions

The results of the 7 interview questions (6 guided and 1 unguided) (see Appendix P) will be reported on in this section. For convenience of reference, each interview question will be given followed by the results, a discussion and initial recommendations. The results will be given according to the **whole sample,** by the students who wrote the HT (**HT students**) and the LT (**LT students**), by the students' **study language** and, where indicated, by the students' **major** field of study. Rating scales of five were avoided so that students had to make a clear decision except when they were asked to evaluate their own work where the same scale of 1 to 5 was used which represents the evaluation criteria of the university (1=poor/failing work, 2=fair, 3=satisfactory, 4=good and 5=excellent work). Titles of tables represent the opinions of the students according to their mean ratings on the particular question. Unless otherwise indicated, the students' comments in the interview represent their perceptions at the time of taking the FI course as well as at the time of the interview; that is, their perceptions had not changed.

1. **Question 1** **How important are the language skills in your university**
   courses? (on a scale from 1 to 4 from least to most important)

The results in Table 11.7 indicate that the interviewees **as a whole** consider writing as the most important language skill in their university courses with a high mean frequency of 3.31, the speaking skill second (3.23), and the listening and reading skills equally third (3.08) on a scale of 1-4 from least to most important. When the mean frequency of opinions on the importance of the skills of the **HT and LT students** were compared, the results shown in Table 11.8 indicate that the HT students consider the reading and writing skills most important while the LT students consider the speaking and writing skills as most important.

Table 11.7   Importance of Language Skills in University Course Work

N=26	Mean	Std.Dev.
Listening	3.08	.88
Speaking	3.23	.99
Reading	3.08	.92
Writing	3.31	.95

Table 11.8   Importance of Language Skills in University Course Work by Level

Skills by Level	Mean	Std.Dev.
High N=13		
Listening	3.19	.38
Speaking	3.12	1 .06
Reading	3.46	.85
Writing	3.54	.83
Low N=13		
Listening	2.96	1.20
Speaking	3.35	.94
Reading	2.69	.85
Writing	3.08	1.04

The results in Table 11.9 indicate that when the Mann Whitney statistical test was applied, the only significant difference was that HT students consider the reading skill as more important (p=.0136). The students generally hold similar opinions on the priority of importance of the language skills in their university course work except that HT students consider the reading skill a significantly higher priority.

Table 11.9   Significant Differences between HT and LT Students' Opinions on Importance of Language Skills in University Courses Using the Mann-Whitney Statistical Test

Skills	Z	2 Tail P.
Listening	- .3390	.7346
Speaking	- .6804	.4962
Reading	-2.4677	.0136*
Writing	-1.1202	.2626

It was interesting to note that when the **study language** of the students was considered, the results in Table 11.10 indicate that the French HT students considered the reading and the writing skills as the most important, but the results of the Mann Whitney Statistical Test in

Table 11.11 indicate no significant differences among the groups, confirming the lexical cohesion analysis results that did not show significant differences between study languages at the same level.

**Table 11.10 Importance of Language Skills in University Course Work
By Level and Study Language**

Skills by Study Lang.	Mean	Std. Dev.
High - English N=8		
Listening	3.06	.18
Speaking	3.38	1.03
Reading	3.25	1.00
Writing	3.50	.85
High - French N=5		
Listening	3.40	.55
Speaking	2.70	1.10
Reading	3.80	.45
Writing	3.60	.89
Low - English N=2		
Listening	3.50	.71
Speaking	3.50	.71
Reading	3.00	.00
Writing	3.00	1.41
Low - French N=11		
Listening	2.86	1.27
Speaking	3.32	1.01
Reading	2.64	.92
Writing	3.09	1.04

**Table 11.11 Significant Differences between HT and LT students' Opinions
on Importance of Language Skills in University Courses According
to Study Language Using the Mann-Whitney Statistical Test**

Skills by Study Lang.	Z	2 Tail P.
EHT with FHT		
Listening	-1.2901	.1970
Speaking	-1.4432	.1490
Reading	-1.2836	.1993
Writing	- .8405	.4006
ELT with FLT		
Listening	- .5183	.6043
Speaking	.0000	1.0000+
Reading	- .6335	.5264
Writing	-.1051	.9163

+ equal

Since the students' opinions may have been influenced by the extent to which they used the different language skills in their **major field of study**, the mean frequencies according to the six majors concerned for the whole student interview sample (N=26) were calculated and are shown in Table 11.12 and the data in Table 11.13 indicate the same according to the students' text level.

Results in Table 11.12 show that all majors consider the writing skill as either first or second priority in comparison to the other skills except for the engineering majors who consider it last; however, the mean was still a high 3.20. (The numbers, however, in each category are necessarily small.)

**Table 11.12   Importance of Language Skills in University Course Work
By Major at the University**

Skills by Major	Mean	Std. Dev.
Engineering N=5		
Listening	3.80	.45
Speaking	3.60	.55
Reading	3.40	.55
Writing	3.20	1.10
Computer Sc. N=6		
Listening	2.67	1.37
Speaking	2.50	1.38
Reading	2.83	1.17
Writing	2.92	1.20
Interior Design N=3		
Listening	2.33	1.15
Speaking	3.67	.58
Reading	2.33	1.15
Writing	3.17	1.44
Pharmacy N=1		
Listening	3.00	.
Speaking	4.00	.
Reading	2.00	.
Writing	4.00	.
Business N=8		
Listening	3.19	.37
Speaking	3.56	.56
Reading	3.31	.88
Writing	3.69	.46
Communic.Arts N=3		
Listening	3.17	.29
Speaking	2.50	1.32
Reading	3.50	.50
Writing	3.17	1.04

The results in Table 11.13 and 11.14 show that when the students' text level in the same major was compared, the HT students considered the writing skill as more important except for interior design where the LT student had the higher mean frequency (This sample is too small to draw any valid conclusions). Also, there were no other pharmacy HT students to make any comparison with the LT student. It was not relevant to carry out any tests of significance according to major since this was not the focus of the research study and the general results confirmed those obtained above.

Table 11.13 Importance of Language Skills in University Course Work by HT and Major at the University

High Texts	Mean	Std. Dev.
Engineering N=1		
Listening	4.00	.
Speaking	3.00	.
Reading	4.00	.
Writing	4.00	.
Computer Sc. N=1		
Listening	3.00	.
Speaking	1.00	.
Reading	4.00	.
Writing	3.50	.
Interior Design N=2		
Listening	3.00	.00
Speaking	3.50	.71
Reading	2.00	1.41
Writing	2.75	1.77
Business N=6		
Listening	3.17	.41
Speaking	3.67	.61
Reading	3.75	.42
Writing	3.92	.20
Comm. Arts N=3		
Listening	3.17	.29
Speaking	2.50	1.32
Reading	3.50	.50
Writing	3.17	1.04

Table 11.14 Importance of Language Skills in University Course Work by LT and Major at the University

Low Texts	Mean	Std. Dev.
Engineering N=4		
Listening	3.75	.50
Speaking	3.75	.50
Reading	3.25	.50
Writing	3.00	1.15
Computer Sc. N=5		
Listening	**2.60**	**1.52**
Speaking	2.80	1.30
Reading	2.60	1.14
Writing	2.80	1.30
Interior Design N=1		
Listening	1.00	.
Speaking	4.00	.
Reading	3.00	.
Writing	4.00	.
Pharmacy N=1		
Listening	3.00	.
Speaking	4.00	.
Reading	2.00	.
Writing	4.00	.
Business N=2		
Listening	3.25	.35
Speaking	3.25	.35
Reading	2.00	.00
Writing	3.00	.00

Results indicate that all students hold similar opinions on the high importance of writing, but the HT text students also consider the reading skill high in importance, while the LT text students consider the speaking and listening skills higher in importance than the reading skill. Probably, the LT students have difficulty in communicating orally in English, and therefore find a need to stress it more. In fact, the LT students consider the reading skill last in priority of importance. Considering the interrelatedness of reading and writing in the research literature and the large quantities of reading and writing a student is faced with in the university, the opinions of the HT students seem more valid in relation to academic achievement. Results might possibly have been influenced by the fact that students knew that the topic of the interview was writing. The students' study language at high school did not significantly influence their opinions which again confirms the lexical cohesion analysis results.

It seems that students at the same level generally hold the same opinion as to the importance of the language skills in their course work at the university irrespective of whether they were English or French educated.

An **initial recommendation** at this stage would be for teachers to make students more aware of the crucial role of the language skills in their academic courses.

2. Question 2 - How useful was the Freshman English I Course?
(on a scale of 1-4 from least to most useful)

The results in Table 11.15 indicate that the students **as a whole** consider the Freshman English I course less useful when compared to the Freshman II course with a low mean frequency of 2.38. It was considered a little more useful when compared to the Sophomore Rhetoric English course, but this result may have been affected by the fact that ten students from the sample had not completed the Sophomore English course and so could not comment. However, all three mean frequencies are not very high indicating a general dissatisfaction with the English courses as far as the students who were interviewed are concerned.

Table 11.15 Usefulness of English Courses

Students by Courses	N	Mean	Std.Dev.
Freshman I	26	2.38	.85
Freshman II	26	2.69	.87
Sophomore Rhetoric	16	2.31	1.45

When the the **HT and LT students'** opinions on the usefulness of the Freshman I course were compared, the results in Table 11.16 indicate that there was no significant differences using the Mann Whitney statistical test ($z=.0000$; $p=1.0000$).

Table 11.16 Usefulness of the Freshman I English Course by Level

Students by Level	N	Mean	Std.Dev.
High	13	2.38	.87
Low	13	2.38	.87

The results in Table 11.17 indicate that when the students' **study language** was considered, the French educated students at both levels considered the course the least useful with the French HT students finding the course the least useful out of all groups, but the results were not significant using the Mann Whitney statistical test (HT students: $z=-.5439$; $p=.5865$; LT students: $z=-1.2572$; $p=2087$) when the study languages were compared at the same level.

Table 11.17 Usefulness of the Freshman English I Course by Level and Study Language

Students by Study Lang	N	Mean	Std.Dev.
High English	8	2.50	.93
High French	5	2.20	.84
Low English	2	3.00	.00
Low French	11	2.27	.90

The results in Tables 11.18 and 11.19 indicate that when the students' **majors** were considered the interior design and pharmacy students as a whole sample found the course the least useful with a mean frequency of 2.00 each with the LT students finding it the least. Also, the engineering and business HT students found the course less useful than the LT students did in the same major.

Table 11.18 Usefulness of the Freshman English I Course by Major

Students by Major	N	Mean	Std.Dev.
Business	8	2.38	1.19
Communication Arts	3	2.67	.58
Computer Sc.	6	2.33	.82
Engineering	5	2.60	.55
Interior Design	3	2.00	1.00
Pharmacy	1	2.00	.

Table 11.19 Usefulness of the Freshman English I Course by Level and Major

Students by Level/Major	N	Mean	Std.Dev.
HIGH			
Business	6	2.17	1.17
Communication Arts	3	2.67	.58
Computer Sc.	1	3.00	.
Engineering	1	2.00	.
Interior Design	2	2.50	.71
LOW			
Business	2	3.00	1.41
Computer Sc.	5	2.20	.84
Engineering	4	2.75	.50
Interior Design	1	1.00	.
Pharmacy	1	2.00	.

The **results indicate** that text level and students' study language does not significantly affect students' opinions on the usefulness of the Freshman I English course. In addition, there seems to be a consensus in all majors that the course is not helping the students in their

majors. This result will probably disappoint the course instructors but it shows the clear need to consider course improvements.

An **initial recommendation** might be to have coordination between these English courses and the disciplines concerning which specific language skills are needed in order that these may be emphasized in the English course as many English for Academic Purposes' Programs (EAP) in both the UK and USA are presently attempting.

3. Question 3 - Part A: How well do you cope with organizing your ideas in the Essay in General? (on a scale of 1-5 from poor to excellent)

The results in Tables 11.20 indicate that the students **as a whole**, by **level** and by **study language** perceive themselves as coping very well with organizing their texts in general with a mean frequency of 3.52. The English LT students seem to have the most difficulty, but the differences were not significant when HT and LT students' opinions were compared either by level (z=1.7885; p=.0737) or study language at the same level using the Mann Whitney statistical test (HT students: z=-.3909; p=.6959; LT students: z=-1.3925; p=.1638).

Table 11.20 Coping with Text Organization in General in the Freshman English I Course as a Whole, by Level and by Study Language

Students-Level/Stud.La.	N	Mean	Std.Dev.
High and Low	26	3.52	.69
High	13	3.77	.63
High English	8	3.69	.59
High French	5	3.90	.74
Low	13	3.27	.67
Low English	2	2.75	.35
Low French	11	3.36	.67

3. Question 3 - Part B How well do you cope with organizing your ideas in the Essay Specifically? (on a scale of 1-5 from poor to excellent)

The results in Tables 11.21 indicate that **as a whole sample** the students see themselves as coping well with organizing the text according to the specific variables mentioned but found that the use of synonyms and antonyms was the most difficult aspect. Although the students do not consider these as organizing features of text in the same way as the present research does, they do pose problems for students, and it seems that they need to be made aware of their organizing possibilities.

The results in Table 11.21 further indicate that the HT students consistently perceived themselves as being better in coping with organizing the essay on all the items when compared to the LT students'opinions.

The results in Table 11.22 indicate that these differences are significant for all items except introductory and body paragraphs and pronoun reference (similar to cohesion analysis results). It seems that all students do not find much difficulty with these two items.

Table 11.21 Coping with Specific Aspects of Text Organization in the Essay in the Freshman English I Course as a Whole and by Level

Students by Org.	HT & LT St		HT Students		LT Students	
	M	SD	M	SD	M	SD
Introduction	3.35	1.16	3.46	1.33	3.23	1.01
Thesis	3.56	1.13	4.00	1.15	3.12	.96
Body of Essay	3.60	.80	3.88	.77	3.31	.75
Conclusion	3.58	1.03	4.08	.86	3.08	.95
Trans. bt. Sentences	3.92	.86	4.35	.75	3.50	.76
Trans. bt. Paragraphs	3.79	.98	4.23	.83	3.35	.94
Synonyms	3.15	.83	3.62	.77	2.69	.63
Antonyms	3.12	.95	3.62	.87	2.62	.77
Parts of Speech	3.56	1.00	4.15	.80	2.96	.83
Pronoun Reference	4.08	1.09	4.23	1.30	3.92	.86

HT Students N = 13   LT Students N = 13
M   = Mean frequency   SD = Standard Deviation

The highest significant differences showed in the use of vocabulary items of parts of speech, synonyms and antonyms suggesting that more advanced students have better command of lexis than the lower proficiency level students (again confirming cohesive analysis results) and that both are aware of their abilities. Definitely, students need to be introduced to ways to develop a wider active vocabulary proficiency level in writing than they presently show. In fact, a look at the sample texts (see Appendix K) shows that both high and low rated texts have a 'simplistic non-academic' level of vocabulary.

Table 11.22 **Significant Differences between HT and LT Students' Opinions on How Well They Cope with the Specifics of Organizing the Essay Using the Mann-Whitney Statistical Test**

Students by Organization	Z	2 Tail P.
Introductory Paragraph	- .5610	.5748
Thesis Statement	-2.2433	.0249*
Body Paragraphs	-1.8967	.0579
Concluding Paragraphs	-2.4535	.0141*
Transitions between Sentences	-2.6416	.0083**
Transitions between Paragraphs	-2.2693	.0233*
Synonyms	-2.8633	.0042**
Antonyms	-2.6868	.0072**
Parts of Speech	-3.0052	.0027**
Pronoun Reference	-1.5140	.1300

* significant at p<0.05   ** highly significant at p<0.01

The results in Table 11.23 indicate that the French educated students' mean frequency rating of their specific organization skills in an essay were higher on 7 out of 10 items at the High level and 8 out 10 items at the Low level. That is, the French educated students rate their coping skills in organization better on more items than the English educated students. Particularly interesting was the higher rating on the use of synonyms and antonyms. This result may confirm the research in the literature that a knowledge of cognate words in another language, in this case French, may help in the target language, in this case English (cf. Odlin 1989). If this is a process which is, in fact, at work here, this would be of interest since for these students this is a case of L2 (French) influencing L3 (English) in a positive manner. One might speculate also that such aspects of text organization may be drawn to students' attention more, or more effectively, in the French-speaking schools than in the English-speaking schools in Lebanon.

Table 11.23 **Coping with Specific Aspects of Text Organization in the Essay in the Freshman English I Course by Study Language at the Same Level**

Students by Org.	EHT Sts.		FHT Sts.		ELT Sts.		FLT Sts.	
	M	SD	M	SD	M	SD	M	SD
Introduction	3.38	1.41	3.60	1.34	2.50	.71	3.36	1.03
Thesis	4.13	.83	3.80	1.64	2.00	.00	3.32	.90
Body of Essay	3.69	.46	4.20	1.10	3.00	.00	3.36	.81
Conclusion	4.13	.83	4.00	1.00	3.50	.71	3.00	1.00
Trans .bt. Sentences	4.31	.70	4.40	.89	2.75	1.06	3.64	.67
Trans.bt.Paragraphs	4.38	.74	4.00	1.00	3.00	.00	3.41	1.02
Synonyms	3.50	.76	3.80	.84	2.50	.71	2.73	.65
Antonyms	3.50	.93	3.80	.84	2.00	.00	2.73	.79
Parts of Speech	4.00	.76	4.40	.89	2.00	.00	3.14	.78
Pronoun Reference	4.13	1.13	4.40	1.34	4.00	1.41	3.91	.83

EHT N = 8; FHT N= 5   ELT N = 2; FLT N = 11

The results in Table 11.24 indicate that when students' opinions were compared according to study language at the same level, there were no significant differences. There were indications of a strong trend of difference between the study languages in the low rated texts on thesis statements and parts of speech with the French students showing higher indications of performance, but the results were not significant.

Table 11.24 Significant Differences between HT and LT Students' Opinions on How Well They Cope with the Specifics of Organizing the Essay According to Study Language Using the Mann-Whitney Statistical Test

Students by Organization & Study Lang.	Z	2 Tail P.
EHT with FHT		
Introductory Paragraph	- .2265	.8208
Thesis Statement	.0000	1.0000+
Body Paragraphs	- .9224	.3563
Concluding Paragraphs	- .2327	.8160
Transitions between Sentences	- .3915	.6954
Transitions between Paragraphs	- .7081	.4789
Synonyms	- .4854	.6274
Antonyms	- .5439	.5865
Parts of Speech	- .9367	.3489
Pronoun Reference	- .8405	.4006
ELT with FLT		
Introductory Paragraph	-1.1525	.2491
Thesis Statement	-1.8381	.0660
Body Paragraphs	- .6800	.4965
Concluding Paragraphs	- .8292	.4070
Transitions between Sentences	-1.6940	.0903
Transitions between Paragraphs	-1.2959	.1950
Synonyms	- .4438	.6572
Antonyms	-1.3111	.1898
Parts of Speech	-1.8545	.0637
Pronoun Reference	- .1082	.9139

+ equal

The **results indicate** that all students found organizing an essay relatively easy to cope with, in general, according to the criteria given to them, but the HT students significantly rate themselves better in coping on most of the items. Although the French educated students at both levels rate themselves higher on most items than the English educated students at the same level, the differences in perceptions on each item were not significant. It can be concluded that the level significantly affects one's self rating, but the study language at the same level does not.

An **initial recommendation** would be to make students aware of other means of organizing their essays at the discourse level. If one glances through their essays (see Appendix K) one finds relatively few transition words in the 'traditional' sense (e.g. *furthermore, in addition, consequently, for this reason* etc.) between sentences and paragraphs, there are thesis statements which are not well constructed and there is limited word choice especially for university students following an academic course of study. The high mean frequency of 3.52 (see Table 11.20) representing their self rating of coping with organization as a group of N=26 may be higher than the students' actual performance level in organization even taking the above criteria into consideration. A second recommendation is to make the French educated students aware that being French educated may not necessarily be a negative factor when using English as a medium of instruction although students often believe this is the case.

4. Question 4 - How much difficulty do you still have in Writing the Essay?
(on a scale of 1-4 from least to most difficulty in Content, Organization, Vocabulary, Language and Mechanics)

The results in Table 11.25 indicate that **as a whole sample and by level** and Table 11.27 by **study language** at the same level, students rate themselves as having little difficulty in writing the essay after two and half years at the university with the HT students rating themselves as having less difficulty on all items. Interestingly, as a whole sample, and by level, both high and low text students rate themselves as having more difficulty in vocabulary when compared to the other skills which confirms the lexical cohesion results in that there was a relatively low density of bonding in both HT and LT in comparison to that in the texts Hoey analyzed (see Chapter Nine). These results further confirm the holistic scoring of the 40 study sample using Jacobs' ESL Composition Profile in that Vocabulary and Language received the lowest ratings when compared to the other components (see Chapter Eight).

Table 11.25 Mean Frequency of Difficulty in Writing Part of the Essay in the Freshman English I Course by Whole Sample and by Level

Students /Parts	HT & LT St		HT Students		LT Students	
	M	**SD**	**M**	**SD**	**M**	**SD**
Content	2.12	1.13	2.00	1.22	2.23	1.42
Organization	2.15	1.26	2.00	1.29	2.31	1.25
Vocabulary	2.65	1.13	2.38	1.26	2.92	.95
Language	2.37	1.03	2.00	1.00	2.73	.95
Mechanics	2.12	1.07	1.85	1.07	2.38	1.04

HT Students N = 13   LT Students N = 13
M   = Mean frequency   SD = Standard Deviation

The results in Table 11.26 indicate that the HT students significantly rate themselves higher in language.

Table 11.26 Significant Differences between HT and LT Students' Opinions on the Amount of Difficulty They Still Have in Writing the Essay Using the Mann-Whitney Statistical Test

Students by Parts	Z	2 Tail P.
Content	- .3001	.7641
Organization	- .7812	.4347
Vocabulary	-1.2220	.2217
Language	-2.2266	.0260*
Mechanics	-1.6015	.1093

* Significant at p<.05

The results in Table 11.27 indicate that when the study languages were compared at the same levels the English LT students report that they still have some difficulty with content, organization and mechanics.

Table 11.27 Difficulty in Writing Parts in the Essay in the Freshman English I Course by Study Language at the Same Level

Students/Parts	EHT Sts.		FHT Sts.		ELT Sts.		FLT Sts.	
	M	SD	M	SD	M	SD	M	SD
Content	2.00	1.31	2.00	1.22	3.00	.00	2.09	1.51
Organization	2.00	1.31	2.00	1.41	3.00	.00	2.18	1.33
Vocabulary	2.25	1.16	2.60	1.52	2.00	.00	3.09	.94
Language	1.88	.99	2.20	1.10	2.25	.35	2.82	1.01
Mechanics	1.88	.99	1.80	1.30	3.00	.00	2.27	1.10

EHT N = 8; FHT N= 5   ELT N = 2 ; FLT N = 11

The results in Table 11.28 indicate that there are no significant difference in ratings when the study languages were considered at the same level.

Table 11.28 Significant Differences between HT and LT students' Opinions on the Amount of Difficulty They Still Have in Writing the Essay According to Study Language Using the Mann-Whitney Statistical Test

Students/Study Lang.	Z	2 Tail P.
EHT with FHT		
Content	- .1574	.8750
Organization	- .1604	.8725
Vocabulary	- .3056	.7599
Language	- .6482	.5168
Mechanics	- .4774	.6331
ELT with FLT		
Content	-1.0429	.2970
Organization	-1.2254	.2204
Vocabulary	-1.6763	.0937
Language	- .6248	.5321
Mechanics	-1.4783	.1393

The **results show** that students report having little difficulty in writing the essay on all items with the HT students reporting significantly less difficulty with the language part. Both high and low text students reported having more difficulty with vocabulary and language which confirm the quantitative results in the present research. The students' study language, again, did not significantly affect the rating again confirming the quantitative results.

An **initial recommendation** would be for teachers to devote time with the English LT students in helping them to organize their ideas.

5. **Question 5 - <u>How much of the time do you consciously use synonyms,</u>**   ·
        <u>antonyms and parts of speech in your essays?</u>
        (on a scale of 1-4 from none to most of the time)

The results in Table 11.29 indicate that the student sample **as a whole** does not report a very high conscious use of synonyms, antonyms and parts of speech (also referred to as types of repetition in the tables below) with results in Table 11.30 indicating the **HT students** reporting a significant higher conscious use of synonyms and parts of speech as might be expected. The fact that there was no difference in the use of antonyms could be attributed to the topic of the essay that probably did not need extensive use of contrasting words or that both levels of students may have similar repertoires.

The synonyms, antonyms and parts of speech in which the high text students reported a higher conscious use are comparable to a few of the categories of the lexical items that form links and then bonds between pairs of sentences used in the lexical cohesion analysis. Although conscious use of repetition was not measured in the the text analysis, the results of the student reports confirm the lexical cohesion analysis results (see Chapter Nine) in that students as a whole did not use synonyms and antonyms extensively in their texts and, in fact, it was the high rated texts that showed a higher degree of use of synonyms and various parts of speech (referred to in the lexical cohesion analysis as complex repetition).

Table 11.29   Conscious Use of Types of Repetition in the Essay in the Freshman English I Course by Whole Sample and by Level

Types of Repetition	HT & LT St		HT Students		LT Students	
	M	**SD**	**M**	**SD**	**M**	**SD**
Synonyms	2.54	.99	2.92	.95	2.15	.90
Antonyms	2.35	.98	2.69	1.03	2.00	.82
Parts of Speech	2.58	1.10	3.00	1.08	2.15	.99

HT Students N = 13   LT Students N = 13
M   = Mean frequency   SD = Standard Deviation

Table 11.30 Significant Differences between HT and LT Students'
Opinions on Conscious Use of Repetition in Writing
the Essay Using the Mann-Whitney Statistical Test

Types of Repetition	Z	2 Tail P.
Synonyms	-2.0049	.0450*
Antonyms	-1.8623	.0626
Parts of Speech	-1.9906	.0465*

* Significant at p<.05

The results in Table 11.31 indicate the **French LT students** reporting the lowest conscious use of the types of repetition mentioned. Perhaps for the French educated group the use of vocabulary is more of an unconscious process requiring less effort than the English educated at the low proficiency level. It could be speculated that the former type of language education stresses the use of vocabulary more than the latter in the high schools. It is interesting to note further that the English LT students along with the French High text students are making quite a conscious effort to use the types of repetition mentioned. It may be that at the low proficiency level the French educated students seem to have a better command of vocabulary, while at the high proficiency level it is the English ones who do so.

Table 11.31 Conscious Use of Types of Repetition in the Essay in the Freshman
English I Course by Study Language at the Same Level

Types of Repetition	EHT Sts.		FHT Sts.		ELT Sts.		FLT Sts.	
	M	SD	M	SD	M	SD	M	SD
Synonyms	2.88	.99	3.00	1.00	3.00	1.41	2.00	.77
Antonyms	2.63	1.06	2.80	1.10	3.00	1.41	1.82	.60
Parts of Speech	2.88	1.25	3.20	.84	3.00	1.41	2.00	.89

EHT N = 8 ; FHT N= 5 ELT N = 2 ; FLT N = 11

The results in Table 11.32, however, indicate that the differences in rating by the English and French educated students at the same level were not significant, again confirming the lexical cohesion anlaysis which also indicated the same when study languages were compared on the variables at the same level (see Chapter Nine). It seems that both language groups perform comparably when considered at the same level.

Table 11.32 Significant Differences between HT and LT Students' Opinions on Conscious Use of Repetition in Writing the Essay According to Study Language Using the Mann-Whitney Statistical Test

Types of Repetition/S.L.	Z	2 Tail P.
EHT with FHT		
Synonyms	- .1537	.8778
Antonyms	- .1526	.8787
Parts of Speech	- .3108	.7560
EHT with FHT		
Synonyms	-1.1560	.2477
Antonyms	-1.4734	.1406
Parts of Speech	-1.1899	.2341

The **results indicate** that the students, in general, report a low conscious use of types of repetition as mentioned, with the HT students making more of a significant conscious attempt than the LT students. Although English educated students of the low rated texts and French educated of the high rated texts made more of a conscious effort to use these types of repetition (probably indicating that they were not as fluent as their colleagues), there were no significant differences when study languages were compared at the same level. These results confirm those of the lexical cohesion analysis, detailed in Chapter Nine.

An **initial recommendation** would be for teachers to focus more on these types of repetition and on ways to help students use them at the discourse level.

6. **Question 6 - How Important do you consider the use of synonyms, antonyms and parts of speech in writing the essay?**
   (on a scale of 1-4 from least to most important)

The results in Tables 11.33 and 11.34 indicate that **as a whole** sample, **by level** and **by study language** at the same level, the students consider the types of repetition highly important in writing the essay with the synonyms having the highest mean frequency rating and the parts of speech the lowest. This confirms the research in the field that such items are important but need to be taught/learned in ways that can facilitate their more effective use in writing (McCarthy, 1984, McCarthy and Carter, 1994, Nattinger, 1992). The High Text students indicated a rating of higher importance for all three types of repetition than the Low Text students. This confirms the lexical cohesion results, in that the high rated texts had a higher significant frequency of synonyms and complex repetition (comparable to parts of speech) than the low-rated texts when their texts were analyzed. Although correlation between importance of repetition and use was not carried out, it is interesting to note that the high text students' opinions confirm their performance on the essay.

Table 11.33 Importance of Types of Repetition in the Essay in the Freshman English I Course by Whole Sample and by Level

Types of Repetition	HT & LT St		HT Students		LT Students	
	M	SD	M	SD	M	SD
Synonyms	3.65	.63	3.69	.63	3.62	.65
Antonyms	3.52	.57	3.73	.44	3.31	.63
Parts of Speech	3.48	.75	3.65	.63	3.31	.85

HT Students N = 13   LT Students N = 13
M = Mean frequency   SD = Standard Deviation

Table 11.34 Importance of Types of Repetition in the Essay in the Freshman English I Course by Study Language at the Same Level

Types of Repetition	EHT Sts.		FHT Sts.		ELT Sts.		FLT Sts.	
	M	SD	M	SD	M	SD	M	SD
Synonyms	2.88	.99	3.00	1.00	3.00	1.41	3.55	.69
Antonyms	2.63	1.06	2.80	1.10	3.00	1.41	3.18	.60
Parts of Speech	2.88	1.25	3.20	.84	3.00	1.41	3.18	.87

EHT N = 8 ; FHT N= 5   ELT N = 2 ; FLT N = 11

The results in Tables 11.35 and 11.36 indicate that there were no significant differences in ratings between the HT and LT students' rating when the level and the study language at the same level were considered. It should be noted that the HT students considered antonyms as the most important which seems to confirm the lexical cohesion analysis in which there were significantly higher frequencies when compared to the same in the LT. There was, however, a strong tendency towards a difference between the ELT and FLT with the ELT indicating a higher importance rating for antonyms. This may due to their relative weakness in this item or that they do not have the same practice in their use in high school as compared to that of the French educated students.

Table 11.35 Significant Differences between HT and LT Students' Opinions on Importance of Repetition in Writing the Essay Using the Mann-Whitney Statistical Test

Types of Repetition	Z	2 Tail P.
Synonyms	- .6861	.4926
Antonyms	-1.8197	.0688
Parts of Speech	-1.2485	.2118

Table 11.36 Significant Differences between HT and LT Students' Opinions on Importance of Using the Types of Repetition in Writing the Essay According to Study Language Using the Mann-Whitney Statistical Test

Types of Repetition	Z	2 Tail P.
EHT with FHT		
Synonyms	- .2977	.7659
Antonyms	- .3406	.7184
Parts of Speech	- .2687	.7881
ELT with FLT		
Synonyms	-1.0982	.2721
Antonyms	-1.7753	.0759
Parts of Speech	-1.5374	.1242

The **results indicate** that all the students rate the types of repetition as highly important in writing an essay. The results confirm the lexical cohesion analysis in that there is no difference when study language is considered at the same level. Also, the HT students' higher ratings in general confirm their higher frequency of use of these items in the texts analyzed especially synonyms and parts of speech (referred to in the analysis as complex repetition). It may be that with more lexical density and therefore stronger bonding in the texts, text coherence can be better achieved.

An **initial recommendation** would be for the teachers to stress these more in the English course and devise more efficient ways to enable students to command a more active use of them.

General Discussion

All in all, the guided interview with the 26 students showed that they consider writing highly important for their academic work. Although their perceptions of their ability may be higher than their actual performance, they report still having most problems in language and vocabulary at the end of their university course of study. A recommendation at this point especially taking the results of the lexical cohesion analysis and the contribution of cohesion to coherence into consideration, would be to have teachers develop materials to help students towards mastery of the use of vocabulary at the discourse level. It does seem that lexis is a very important part of language and the writing process in particular. Teachers should become aware of the place of lexis in Hoey's theory of language as it applies to language teaching/learning and specifically in the EFL classroom (Hoey, 1991a).

7. Question 7 - <u>Do you have any suggestions for improving the Freshman English I Course and specifically the writing component?</u>

The 26 students' comments were transcribed as they were said (see Appendix Q). Sometimes, the student would use an Arabic word here and there. This code-mixing is typical of the way many Lebanese speak. These words are placed in inverted commas in transcription with the English translation in parentheses immediately near the word. The transcriptions are organized according to the students' text level and study language. Also, some demographic information is given before each transcription on the students study language, other languages, native language, nationality, major cumulative grade point average and sex. The 26 student comments on how the English course and specifically the writing component could be improved were analyzed very carefully by the researcher to find common patterns of ideas. These are summarized below under the relevant topic headings. If the frequency of type of student comment was made by more than one student, this would be indicated following the comment. Such comments may be particularly important in the Lebanese context, in which such qualitative evaluation and feedback is less commonly sought from students than in Britain or North America.

The comments were to be given in a general way, but then it was thought best to divide them according to level and study language of the student as these variables are considered important in relating the comments to the results of the cohesive analysis and the contribution of cohesion (bonding) to the coherence of the texts. Also, in this way the comments would be of more help to teachers in relating the comments to specific groups of students in the classroom. Each section is followed by an initial recommendation. A final discussion and recommendations conclude the chapter. The major types of student comments on how the Freshman I course could be improved were grouped according to the following:

    a. Freshman English Course as a Whole
    b. Students' English Language in General
    c. Teaching/Learning of the Writing Skill
       i. Some General Comments Concerning the Writing Topic
       ii. Some General Comments Concerning Their Own Writing
    d. Teaching/Learning of the Reading Skill as it Relates to Writing
    e. Teaching/Learning of the Vocabulary Skill as it Relates to Writing

a. Improving the Freshman English Course as a Whole

The following suggestions were made related to improving the Freshman English as a whole.

High - English

Four suggestions were made by the High English educated students:

1. To criticize and analyze literature and use literature as models to improve students' style of writing
2. To have a better teacher
3. To have conversation
4. To make the two basic Freshman English more different

High - French

Eleven suggestions were made by the High French educated students. It seemed that they had more complaints than the English educated did.

1. To include more speaking practice in the classroom
2. To combine Freshman I and II into one course
3. To have different material to those given in highschool classes
4. To give different material in Freshman I and II courses
5. To give less homework to the students
6. To have more group work in class and some related to the students' major
7. To have homogenous abilities in the class
8. To lessen the teaching of the tenses
9. To improve the teaching methods
10. To use textbooks as references only
11. To use the language laboratory in teaching vocabulary

Low - English

Only one suggestion was made by the Low Educated students that of a need for more conversation in the classroom. It seems this sub group was hesitant to comment negatively or offer suggestions. Although they do usually complain about their grades, in the interview they may have felt that offering suggestions may negatively influence their course grade.

Low - French

However, the Low French educated students offered comments. It seems that they felt that knowing French is a negative influence on learning English as comments 1 and 2 suggest. This is not an uncommon feeling among students. They also want more of the process of writing. Tenses for them, (unlike the High students) are needed.

1. To have more speaking and participation in class (3)
2. To emphasize vocabulary and to avoid French words (3)
3. To give more essays in giving the steps in writing and follow up (3)
4. To emphasize the tenses
5. To give more reading
6. To make it more active

Discussion and Recommendations

It was suggested at both levels and by both study language groups to have more speaking practice with one high text student recommending the use of literary texts both for analysis and models in writing. It was the high text students that suggested that the course be made different from the sequel English course and that different materials be included and teaching methods be looked into. The low text students were more conservative in their suggestions in this respect and focussed more on specific aspects of the language skills. On the whole, however, there is a general dissatisfaction with the course. This confirms the results first obtained by Yazigi (1991), in a social and psychological study of the attitudes of university students at the Lebanese American University and the American University of Beirut in which she concluded:

"As much as the students value English for various reasons and as much as they seem to have favourable attitudes towards learning it and towards its people and culture, they seem to resent cetain aspects of the English language courses such as their content or methods, especially when compared to other courses; for example, 'My parents think I should spend more time on my English courses' received only 21% positive answers, while 'I would rather spend my time on courses other than English' received 46% positive responses ."(p.248)

An **initial recommendation** would be for the English Program to follow up on this preliminary result with a needs' assessment project including both teachers' and students' inputs.

b. Improving Language in General

The following suggestions were made related to how the English Program could improve the students' use of English in general.

High - English

The High English educated students gave no suggestions. It seems they perceived their English was good enough or that they did not need the programs' help.

High - French

Again, it was the French educated students who gave most of the suggestions indicating perhaps their perception of their own inadequate ability in the language. Suggestion 1. below indicates their attitute towards the French language. Perhaps the program should inform these students of the positive transfers from French to English in learning a language although speaking in English in an English medium university is definitely a more favored practice.

Four suggestions were made by these students:

1. By speaking in English not French and Arabic as is often the case (4)
2. By reading
3. By more exercises
4. By more discussions in class with a communicative active approach

Low - French

The Low French educated students made two suggestions. The French educated students also indicate the problem of speaking in languages other than English.

1. By more reading
2. By more speaking in English not in French and Arabic.

Discussion and Recommendations

From the comments, it is clear that the students believe that one improves in the use of English by practising it. They also indicated the interrelatedness of the skills in improving the language. An **initial recommendation** would be to give students more relevant practise in the skills with teacher guidance.

c. Improving the Teaching/Learning of Writing

The following suggestions were made related to improving the teaching/learning of writing:

High - English

Five suggestions were made by the high English educated students:

1. By writing more in- class essays to prevent other students from doing the work and to know their real abilities (2)
2. By working daily
3. By taking the Social Science courses before the English course as more vocabulary (synonyms and antonyms are given)
4. By listening comprehension; for example, watching movies
5. By vocabulary

High - French

Four suggestions were made by the high French educated students:

1. By writing more in-class essays (3)
2. By discussion before writing (3)
3. By giving feedback through the correction system
4. By limiting the number of topic choices

Low - English

One suggestion was given by a low English educated student and that was by writing journals in which to give opinions and what they enjoy doing.

Low - French

Seven suggestions were given by the low French educated students. Again, it is this sub category who seem to have more specific suggestions.

1. By practising in class writing essays (2)
2. By writing the draft first
3. By reading English
4. By listening to English
5. By improving vocabulary
6. By explaining the students' written faults
7. By giving models of texts

Discussion and Recommendations

The comments indicate that the students as a whole perceive writing as interrelated with the other skills of reading, (vocabulary improvement), listening and speaking. They also note the importance of using models and practice writing in class and the problem of 'plagiarism' if students are given writing assignments to do outside the classroom. Also, wanting some criteria to guide them in the writing process and feedback on their work is noted by a few which probably represents most of the students' opinion as confirmed by the researcher's experience at the university. An **initial recommendation** is for teachers of composition to allow more time for in-class practice which is beneficial and enjoyable. Also, for both teachers and administrators to continue to obtain students' perceptions on their own writing abilities and the causes for their difficulties and improvement (Bacha 1994 in progress) as part of any department's needs analysis projects.

i. The Writing Topic

As part of the teaching/learning of writing the essay, students gave specific suggestions concerning the writing topic.

High - English

Three suggestions were given by the high English educated students.

1. To write on topics related to their lives (3)
2. To write on topics related to their majors
3. To have topics that are 'easy enough' to write on

High - French Educated

Three suggestions were given by the high French educated students which are similar to those of the English educated.

1. To write on topics related to society (2)
2. To write on topics related to books
3. To have topics that are 'easy enough' to write on

Low - English

No suggestions were made by the low English educated students.

Low - French

A suggestion made by five low French educated students was to write on topics related to their lives.

Discussion and Recommendations

According to most of the students' views, the type of topic affects their writing performance which the research literature in the field supports (Hamp-Lyons 1991; Reid, 1993). It seems that the students' attitudes and knowledge of the topic are crucial criteria for better results. Topics related to their lives and/or majors are suggested. When the students were asked whether the diagnostic topic they wrote on in 1993/94, on the disagreements between parents and teenagers, most commented that they had no difficulty. An **initial recommendation** would be for teachers to look more seriously at the tasks they give their students in the composition classroom. This in turn may affect their performance in cohesion, as Hamdan (1988) found, and especially in the case of this study, their use of lexical cohesion and in turn perhaps the coherence of their writing. Also, for the composition teachers to make explicit links with the other disciplines in the university to better understand their students' writing needs.

ii. Comments on Students' Own Writing

Another aspect of the teaching/learning of writing that students commented on was their own perceptions of their writing abilities.

High - English

In general these students commented that they like to write. They have ideas, but five students suggested that they need to improve the organization of their essays although they have no problems with the use of transitions.

High - French

The two comments by this sub group was that their written drafts are often messy, but the final product good and that organizing the introduction and conclusion of the essay is more difficult in comparison to the body paragraphs.

Low - English

The comment made by one student was that although he has ideas, he needs to better organize and express them in writing an essay.

Low - French

Three suggestions were given by the low French educated students. Again, these students expressed more specific suggestions perhaps showing they need more help.

1. To attempt to minimize the influence of French and Arabic in writing (3)
2. To obtain computer help in organizing ideas in the essay especially in the final draft (2)
3. To have ample time to complete the essay

Discussion and Recommendations

The comments indicate that writing for the students is not easy. Although the guided interview question showed students to have relatively little problems with organizing ideas (question 3 above), when commenting freely, they indicated problems. The French LT students indicated that knowing Arabic and French interferes with their writing in English; the HT students did not make such a comment perhaps showing the controversy in the influence of L1 on L2 (see Chapter Two). In fact, Yazigi (1991) in reporting the results of the comparison of the performance of the various language skills on a group of students similar to those in the present research found that students were the weakest in writing. "Their performance [students'] on the proficiency test was acceptable except for the writing part." (p.iii). Also, the comments indicated (along with those on the little usefulness of the F1 course) that the students had made no or little progress over the semester. This again confirms the cohesion analysis results between D1 and D2 in which the HT showed little or no increase in cohesion on D2 and the LT showed little. An **initial recommendation** would be to devise more effective ways to help students through the thinking process of brainstorming ideas and organizing them before producing a final product. The present research could offer some insights in this direction.

d. Improving the Teaching/Learning of Reading

Although the present study focuses on the writing skill, it is obvious that the reading skill is inseparable from it. During the interview, the students offered suggestions on how the teaching/learning of reading could be improved.

High - English

The one suggestion given by this group was by knowing how to read because of its importance for university students.

High - French

The one suggestion given by this group was also by reading but with specific emphasis on reading in English since students tend to read more in Arabic and French as well as think in them.

Low - English

Again, the low English educated gave no comments.

Low - French Educated

Two students suggested improving reading because this is not done.

Discussion and Recommendations

Clearly, the students who commented on the reading component stress actual reading in the language; one student mentioned being shown how to read. In fact, as confirmed by the researcher's experience and many other teachers' comments in English and the disciplines most students at the univsersity do not like to read in any language even though they (the students) may view it as important. Perhaps the age of technology has made reading a book an outdated 'luxury' of the few. An **initial recommendation** is that if, as the research in the field indicates, that reading and writing are related, our students need to be motivated to read not only for pleasure but their textbooks. Sadly they often do not read them. Towards this goal, there should be careful selection of reading materials based upon students' needs especially for the English courses (Bacha 1996 in progress). Students should also be made aware of the relationship between writing and reading; that a writer is writing for a reader and that the reader attempts to understand and interpret what the writer has to say.

e. Improving the Teaching/Learning of Vocabulary

Quite related to the present research is vocabulary use. The students also offered suggestions concerning the teaching/learning of vocabulary.

High - English

Four suggestions were made by the high English educated students.

1. By learning to choose appropriate words not just conscious use of vocabulary (2)
2. By being taught how to learn vocabulary
3. By including more interesting readings in the program

High - French

Three suggestions were made by the high French educated students. It seems that a few of these students are aware of the positive effect of French vocabulary but that repetition is negative.

1. By learning and using synonyms and antonyms to avoid repetition in one's language (4)
2. By reading
3. By making use of French words

Low - English

Not surprisingly one student's suggestion to improve vocabulary was by reading a dictionary. Students in Lebanon are given the impression in the high schools that reference to

a dictionary is often the best method. They are given lists of words, they look up the meanings and write them as such in their notebooks to memorize for homework which they are tested on in a similar fashion.

Low - French

Three suggestions were given by the low French educated students. Again, the perception that French is a negative influence is apparent and there is an emphasis on learning word lists.

1. By reading more books
2. By trying not to let French interfere
3. By learning a new word everyday

Discussion and Recommendation

Although many students during the interview expressed having problems with limited vocabulary, they did not suggest how one could improve vocabulary learning. The comments that were given and summarized above suggest that reading books would help and making word lists. Some suggested this would minimize the influence of French. In fact, there is a controversy as to whether a knowledge of French words is a positive factor in learning English. This controversy is discussed in detail by Odlin (1989) who concludes that it can be both a positive and negative interference. Futhermore, there seems to be some awareness that repeating the same word is not an effective feature of writing and that it should be avoided. An **initial recommendation** would be for teachers to show the French educated students how to exploit their knowledge of French vocabulary especially cognates and to show students how to make positive use of repetition of words in their writing; the present study is an attempt towards this end. Again, the importance of reading in writing is indicated which emphasizes the teachers' role in selection of material and motivation.

Conclusion

In this chapter, 26 students' comments on the English Course and their writing skill with particular reference to organization and vocabulary were reported. It can be concluded from the interview that HT and LT students agree that the Freshman English course should be improved with specific emphasis on the following:

1. Efficient ways to teach the writing skill as it is important for university
   course work.

2. Relevant and interesting readings and ways to learn vocabulary are important
   prerequistes for improving writing proficiency.

3. Relevant communicative practice opportunities should be given in reading,
   listening, speaking and writing as they are crucial to improve one's language
   abilities and writing skill in particular in an academic setting taking into
   consideration the students' knowledge of other languages, Arabic and French.

Although the above points are probably obvious to any language teacher, to have the students' confirmation makes them more urgent. In fact, many of the comments and suggestions made by the sample of students confirmed the lexical cohesive analysis; students at both levels of proficiency had many similar problems with the higher proficient students using more 'sophisticated' types of lexis and over greater distances. Also, students perceived themselves as not improving in the language or in writing sufficiently by the end of the semester after they had completed the FI course. Although there were some differences between the study languages at the same level, results were not significant. The interview comments and suggestions also showed some differences but all in all students' problems were generally similar. It seems that all students are still taught under the 'traditional' approach in teaching writing at both high school and university. What is needed is not a substitute of approach but an opening of another channel to include the insights of research such as the present one in the teaching/learning of the essay. A **recommendation** related to the present study would be to have students analyze texts focusing on the 'repetition' of the 'vocabulary' items and their organizing function. This will not only help them improve their reading and vocabulary skills but their writing as well and make their texts more cohesive, and thus more coherent, at the discourse level where it counts most.

This chapter ends the further investigations carried out. The following chapter concludes the present study with recommendations for future research.

PART VI - SUMMARY, RECOMMENDATIONS, FUTURE RESEARCH
CHAPTER TWELVE

CONCLUSION

"And when you have reached the mountain top,
then you shall begin to climb."
Gibran, The Prophet

This concluding chapter will first give a summary of the main results of this research with a brief discussion of major implications to the teaching/learning situation. Secondly, recommendations for the teaching/learning of writing, particularly compositions will be given and finally suggestions for possible future research in this area will be put forward.

I. Summary of Results

In summary, the results in the present research can be said to confirm and reinforce one another. The cohesion analysis by level confirm the holistic ratings of the high and low texts in that the high texts showed a significantly sophisticated type of lexical item as well as bonding over longer distances than the low texts showed, both mature features of writing. The student interviews seemed to confirm the high and low holistic ratings of the texts in that the higher proficient students' demotivation may have affected their lower cohesion and holistic scores on D2 compared to those of D1 while the lower proficient students' recognition of their weaknesses seemed to make some improvement on D2. More importantly, an objective criteria (lexical cohesion) confirmed the EFL composition three part paragraph organization as well as topic and concluding sentences and could be used to identify the same in the teaching/learning of the essay.

The main results in the present study are given according to the 1) research questions and the related hypotheses, 2) contribution of cohesion to coherence, and 3) student interviews.

A. The Research Questions

The results of the research questions concerning the lexical cohesion analysis will be given according to the four research questions (and related hypotheses) and for convenience of reference each will be given below followed by a discussion of the most significant results obtained.

1. Research Question 1

Is lexical cohesion an indicator of (related to) writing proficiency in the expository EFL texts in the Freshman English I course?

a. Results

1. The results summarized in Table 12.1 indicate that frequency of **types** of lexical cohesion (expressed as a percentage out of the total number of links in the text) SPP and CR3 were significantly related to high writing proficiency in D1 and D2 respectively, while SMP1 and CR1 were significantly related to low writing proficiency in D1 and D2 respectively. (**Null hypotheses 9 and 10 were rejected.**)

2. There were no significant relations between lexical cohesion (according to **frequency of bonds** (expressed as a percentage out of the total number of cells in the text) and **distance of bonds** (expressed as a proportion of the number of intervening sentences between bonds) and text level (high and low) in both D1 and D2 texts. (**Null hypotheses 1- 8 were accepted**)

Table 12.1   Correlation between Frequency of Types of Links and Text Level Using the Spearman Correlation Coefficient

	Diagnostic 1		Diagnostic 2	
	ρ	P	ρ	P
HT				
SPP	.4896	.028*		
CR3			.6135	.020*
LT				
SMP1	.5435	.013*		
CR1			.6221	.055+

* indicates significance at any level   + significant trend

b. Discussion of Research Question 1

It seems that frequency counts of lexical cohesion are not related to text quality: this confirms previous research in the field (see Chapter Five). However, a few of the individual types of lexical cohesion mentioned above are significantly related to writing proficiency. It is interesting to note that the more 'sophisticated' lexical cohesive item of SPP according to the priority scale indicates high proficiency writing, while the 'less sophisticated' of SMP1 indicates lower proficient writing in D1. The correlations between CR3 and the HT and CR1 and the LT in D2 suggest that CR3 is an indicator of writing quality although it was the LT that had the higher priority item of CR1. It is not surprising to note that antonyms indicate writing of higher quality.

These results have implications for the teaching and learning of composition writing: it would be worth developing materials to help the lower proficient students to become more aware of and able to use more SPP and CR3 in their writing.

2. Research Question 2

Are there differences in frequency of lexical cohesion in the holistcally rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

a. Results

1. The results in Table 12.2 indicate that the HT significantly decreased in lexical cohesion in the **frequency of bonds** (expressed as a percentage of the total number of cells in the text) in D2 texts (when 2 and 3 links equal 1 bond), while the LT significantly increased in the frequency of bonds in D2 texts (when 2 and 3 links equal 1 bond). **(Null hypothesis 11.3 is rejected.)**

2. There were no significant differences in **frequency of bonds** between High and Low levels in both D1 and D2 texts. **(Null hypotheses 11.1 and 11.2 are accepted.)**

3. There were no significant differences in **frequency of bonds** when study languages were compared at the same levels. **(Null hypotheses 12.1 and 12.2 are accepted.)**

Table 12.2   Comparison in Frequency of Bonds between D1 and D2 by level Using the Wilcoxon Matched Pairs Rank Sums Test

	Z	2 Tail P.
Two Links = 1 bond		
High Texts	- 2.1653	.0304*
Low Texts	-2.8373	.0045*
Three Links = 1 Bond		
High Texts	-3.7333	.0002*
Low Texts	-3.0182	.0025*

HT decreased on D2 (2 and 3 links equal 1 bond)
LT increased on D2 (2 and 3 links equal 1 bond)
 * indicates significance at any level

b. Discussion of Research Question 2

The fact that there were no significant differences in frequency of bonds between the high and low proficiency levels indicates that probably both groups are basic writers when compared to the text analyzed by Hoey (1991a) which had approximately one third of the sentences bonded with 2 links and above. Both the high and low texts did not reach this threshold. In fact, when 2 links equal one bond was considered, there was an average of about 20% bonded sentences and when 3 links were considered, the average was about 1-5% of bonded sentences in both high and low texts. Clearly, such a threshold level of bonded sentences in the EFL texts indicates that the students' texts have relatively low lexical density and again the implication for the teaching/learning situation would be that materials or

methods designed to improve this aspect in student writing may be a key to better quality writing.

The fact that the high texts significantly decreased in frequency of bonds in D2 and the low significantly increased when both 2 and 3 links equal one bond were considered could be interpreted that the high text students were either not motivated to work (as the interview results show in Chapter Eleven) or that the course did not challenge the higher proficient students (which does again seem to be the case from the interview comments). The improvement in the low texts could be probably from default or student motivation to pass the course. However, these results should be viewed with caution since they are exploratory. The question might be settled by future research involving a true experiment using control group research design.

3. Research Question 3

Are there differences in the distance of lexical cohesion in the holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Freshman English I Course?

a. Results

1. The results summarized in Table 12.3 indicate that the HT had a highly significant difference in the distance of the bonds (as expressed by the bond indicator of the number of intervening sentences between bonds) in Diagnostic 1 texts when both two and three links equal one bond were considered. Although the HT did show a higher mean distance of bonds in D2 texts the difference was not significant when compared to that of the LT. **(Null hypothesis 13.1 is rejected and 13.2 is accepted.)**

Table 12.3   Comparison in Distance of Bonds by Level
Using the Mann-Whitney Test in D1

	Diagnostic 1	
	Z	**2 Tail P**
2 links =1bond		
HT with LT+	-3.3813	.0007*
3 links =1 bond		
HT with LT+	-3.1277	.0018*

+ HT higher mean
* indicates significance of any level

2. The results summarized in Table 12.4 indicate that the HT significantly decreased in bond distance in D2 texts when three links equal one bond was considered, while the LT

significantly increased in D2 when both two and three links equal one bond were considered. (Null hypothesis 13.3 is rejected.)

Table 12.4   Comparison in Distance of Bonds by Level between D1 and D2 Using the Wilcoxon Matched Pairs Rank Sums Test

	Z	2 Tail P.
Two Links = 1 bond		
High Texts		
Low Texts	-3.8826	.0001*
Three Links = 1 Bond		
High Texts	-3.3599	.0008*
Low Texts	-3.7236	.0002*

HT decreased on D2 (3 links equal 1 bond)
LT increased on D2 (2 and 3 links equal 1 bond)
* indicates significance at any level

3. There were no signficant differences in bond distance between high and low texts in D2 texts. (Null hypothesis 13.2 is accepted; see no.1 above.)

4. There were no significant differences between study languages at the same level. (Null hypotheses 14.1 and 14.2 are accepted.)

b. Discussion of Research Question 3

It seems that the HT bond over longer distances in texts; that is, this group of writers connect their ideas over larger stretches of text than the lower proficient writers do. This has enormous implications for the teaching of the writing and suggests that teachers could productively focus on methods to help the lower proficient students attempt to view their work as larger pieces of discourse rather than simply focusing on the shorter stretches or having more preoccupation at the sentence level (as some students revealed in interviews).

Again, the results comparing the texts between D1 and D2, although showing a significant improvement for the LT and a significant decrease for the HT, indicate that there is scope for developing teaching materials to help the lower proficient writers consider larger stretches of discourse while they write or revise. It is left for further research to assess the significance of such teaching materials and substantiate whether using them would make a difference over a semester. An experimental control group research design would be needed.

4. Research Question 4

Are there differences in frequency of type of lexical cohesion in 1) the whole text and 2) adjacent sentences in holistically rated EFL texts of high and low writing proficiency levels and study language at the same level in the Feshman English I Course?

a. Results

1. The results summarized in Table 12.5 indicate that the HT had a significant higher frequency of CP1, SMP1 and CR2 in D1 when compared to those of the LT in the whole text. There were no significant differences between the HT and LT on D2. (**Null hypothesis 15.1 is rejected and 15.2 is accepted**)

Table 12.5   Comparison of Types of Links by level
      Using the Mann Whitney Test in D1

	Diagnostic 1	
	Z	2Tail P
CP1	-2.9908+	.0028 *
SMP1	-3.0569+	.0022 *
CR2	-4.0569+	.0000 *

+ HT higher mean   * indicates significance at any level

2. The results summarized in Table 12.6 indicate that when types of links were compared between D1 and D2, the HT had a higher significant frequency of types of links in the whole text in D1 texts in CP1, SMP1, D and S, while the LT had the same in S. In D2 texts, the HT had a higher significant frequency of CR1 and SR, while the LT had the same in SMP1 and CR2. (**The null hypothesis 15.3 is rejected**)

Table 12.6   Comparison of Frequency Types of Links by Level in Whole Text
      between D1 and D2 Using the Wilcoxon Matched Pairs Rank Sums Test

	High Texts		Low Texts	
	Z	2 Tail P	Z	2 Tail P
CP1	-2.3444++	.0191*		
SMP1	-3.7236++	.0002*	-2.9341+	.0033*
CR1	-2.2960+	.0217*		
CR2			-2.5205+	.0117*
SR	-2.8373+	.0045*		
D	-3.9199++	.0001*		
S	-2.8166++	.0049*	-3.5058++	.0005*

++ D1 higher significant frequency
 + D2 higher significant frequency
 * indicates significance at any level

3. The results summarized in Table 12.7 indicate that the French low texts had significantly higher frequencies of types of links of SPP and SMP1 when compared to the same of the English low D1 texts. There were no significant differences in D2. (**The null hypothesis 16.1 is rejected and 16.2 is accepted.**)

**Table 12.7   Comparison of Types of Links in Whole Text
by Study Language at the Same Level Using
the Mann Whitney Test in D1**

	Diagnostic 1	
	Z	2Tail P
+ SPP	-1.9704	.0488*
+ SMP1	-2.0152	.0439*

+ FLT higher mean
* indicates significance at any level

4.   The results summarized in Table 12.8 indicate that the HT had higher significant frequencies of SMP1 and CR2 in adjacent sentences in D1 than those in the LT. The LT, however, had a higher significant frequency of SR in adjacent sentences in both D1 and D2. Also, the LT had a higher significant total frequency of links in adjacent sentences in both D1 and D2 texts. **(The null hypotheses 17.1 and 17.2 are rejected.)**

5. There were no significant differences in types of links when study language was considered at the same level in both the whole text in D2 texts and in adjacent sentences in both D1 and D2 texts. **(Null hypotheses 16.2, 18.1 and 18.2 are accepted.)**

**Table 12.8   Comparison of Frequency of Types of Links by Level in Adjacent
Sentences (calculated as percentage of the total number of type
of link) in D1 and D2 Texts Using the Mann Whitney Test**

	Diagnostic 1		Diagnostic 2	
	Z	2 Tail P	Z	2 Tail P
SMP1	-2.3502+	.0188*		
CR2	-2.2347+	.0254*		
SR	-2.4345++	.0149*	-3.0110+	.0026*
Total links	-2.2995++	.0215*	-2.2445+	.0248*

++ LT higher significant frequency
+ HT higher significant frequency
* indicates significance at any level

b. Discussion of Research Question 4

It seems that the HT indicated significant use of more sophisticated   types of lexical cohesion items than the LT in D1 texts. Also, the LT significantly have more simple repetition links in adjacent sentences while the HT use more SR at longer distances. Both these results have implications for the teaching of writing: materials and methods could be devised to help the lower proficient students use more synonyms in adjacent sentences and improve their lexical repertoire (some interviewed students commented on the importance of this).

It was very interesting to note that the French low texts showed a significant use of synonyms in the D1 texts which probably is due to some positive transfer from their knowledge of French vocabulary (Odlin, 1989). The significant differences in the HT and the LT between D1 and D2 indicate that the latter significantly improved in their use of a few lexical items. However, again this is left for more research to investigate.

B. Summary of Results from the Contribution of Cohesion to Coherence

Although the sample analyzed was small and clearly the topic needs further investigation, three major points were found when lexical cohesion, as identified by the patterns of the bonding over text, was investigated according to Hoey's (1991a) criteria in forming sub-texts or summaries from the whole text. The coherence of the sub-texts formed was confirmed by the teachers' ratings. This indicated that coherent sub-texts or summaries can be formed by the strength of the bonding specifically as follows:

1. When **the marginal sentences** (those having zero bonds) were omitted, and minor changes were made, coherent summaries were formed for both the HT and LT when two and three links equal one bond were considered with the texts analyzed according to two links equal one bond) being more coherent.

2. When only the **central sentences** (those that had a minimum of two bonds with other sentences) were considered for both two and three links equal one bond for both the HT and LT, brief coherent summaries were also formed with those based on two links equal bond again being more coherent.

It was noticed that the marginal sentences and non-central sentences contained more examples and development of main ideas rather than general main idea sentences.

3. **When topic opening and topic closing sentences** were identified (those that had the highest number of bonds with consecutive and previous sentences respectively) when two and three links equal one bond were considered, it was found that the topic opening sentences were introductory in content and appeared earlier in the text, while the topic closing sentences were summative and concluding in content and appeared relatively later in the text. Also, the sentences that both topic opening and topic closing sentences bonded with highly also formed 'abridgements' of the texts or brief summaries. It was noted that, as Hoey (1991a) pointed out, texts can have more than one summary depending on the different themes in the text. This was applicable to the EFL texts analyzed.

These findings have enormous implications for the teaching/learning of academic writing both in the EFL Program and in the university at large where summary writing is crucial for projects, assignments and report writing in most disciplines (Bacha, 1993).

C. Summary of Results of Student Interview

It was very interesting to have personal contact with the writers of the texts two years after the texts had been written. The interviews with the 26 (13 H and 13 L) students whose texts were analyzed can be summarized under main points below:

1. Both the H and L proficiency students strongly believe that the Freshman I English Course should be revised to include more oral work and writing practice through active participation in the classroom with an emphasis on reading and widening one's vocabulary. Both groups see the connection between reading and the writing skill.

2. Both the H and L proficiency students state that writing is the most important skill when compared to the skills of listening, speaking and reading for their university course work.

3. Both the H and L proficiency students do not seem to have problems with organizing their writing if given ample time and appropriate topics.

4. Both the H and L proficiency students in general do not consciously use synonyms and antonyms and different parts of speech, only sometimes, although they see the high importance of them in their writing.

5. The H proficient students would like to be challenged with more interesting and relevant material. They felt bored and considered that their needs were not being met.

6. The L proficient students would like to have more evaluative feedback on their writing.

There is a definite need to cater for the more proficient students even in the basic English course and to devise more appropriate ways to help all the students to improve in their writing skill.

D. Additional Considerations

Before making some recommendations for the application of the results to the teaching/learning of the essay, it is significant to point out several factors (besides that of bonding) that although they were not part of the textual analysis, emerged during the course of the study as being of likely importance. These are listed below followed by a general recommendation.

1. *Gender* differences in writing proficiency showed that relatively more female students gained higher scores when these were compared with the male students' scores in the interviewed sample (see Chapter Eleven, Table 11.1). In fact, in the interview sample, 3 out

of the 13 LT students and 10 out of the 13 HT students were female, showing the general comparative lower performance level of the males. This result seems to confirm gender differences obtained by a study carried out by the LAU, Byblos, University Admissions Office even though the study focused on final English grades as a whole (which included the reading skill proficiency level as well as writing proficiency) (Lebanese American University, 1995).

2. Although there were very few significant differences between *study languages (French or English)* at the same level in the main part of the study on most of the dependent variables (see Chapter Nine), there seemed to be a trend for the FLT to show more lexical variety (see Chapter Nine) and a significant lower frequency of unbonded sentences on D2 (suggestive of more lexical density, see Appendix O.5) when compared to the ELT. Also, when interviewed the FLT students expressed more complaints concerning the way in which the course did not meet their needs for writing development.

3. The *majors* of the students seemed to have influenced their opinions of the usefulness of the course (see Chapter Eleven, Table 11.18) with the Pharmacy and Interior Design students finding it the least useful.

4. Although the purpose of the study was not to research the influence of *socio-economic* factors on students' performance, the researcher recognizes that these may be behind the 'harsh' complaints of some of the LT students who may not have had equal academic opportunities in their high schools compared to others from a more favourable home background or, for example, those who attended private schools. This may well have influenced their 'weaker' performance.

5. This research also did not fully consider the *motivation* of the students. There is research (Yazigi, 1991) which indicates that LAU students see themselves as 'instrumentally' motivated to learn English (and presumably writing) because it is significant to their success in their major course work at university. This result is confirmed by students' survey responses (Bacha, 1993) in which writing was seen by the students as being the most important of the skills to their university course work. However, it became evident during the present interviews that the HT students felt unchallenged which perhaps could have been a demotivation factor in the general decline in their performance on D2.

The above factors are some points that emerged during the course of this study. They suggest that different students of varying backgrounds (even at the same writing proficiency level) may well have different needs, learning styles, and psychological profiles that also

influence them in their production of text. Such aspects need attention, and it is recommended that future research should consider their interplay in relation to text production.

II. Recommendations for the Teaching/Learning of Writing

The purpose of the present study was to analyze Arabic speaking student texts in the Freshman English I Course in the EFL Program at the Lebanese American University, Byblos Branch, specifically for patterns of lexical cohesion in an effort to find significantly differing patterns in the HT in order to recommend material and/or methods to help the lower proficient students improve in their writing skills and to further advance the skills of the higher proficient students. Although there are numerous other ways to identify weaknesses and strengths in student writing, the procedure used here is considered a significant one since it takes into account continuous writing at discourse level. The following recommendations for the teaching of writing the essay for the F1 course are made. Athough the focus was the F1 course, other EFL courses may adapt the procedure to suit the needs and levels of the students.

1. Summary Writing

The eighty texts analyzed for the present research with the cell and repetition matrices could form a basis for the development of material to show students the patterns of bonding over the text and how sub-texts with non-marginal, central and topic opening and closing sentences could be formed. Since the texts are reliably assessed as high and low, samples of 'good' essays and summaries could be given to the students as models before they actually begin to write their own. The procedure would be important in raising awareness as an initial exercise before the students carry out writing exercises themselves on a paragraph or so of their own writing. Many exercises related to summary writing could be carried out, such as identifying topic sentences, development sentences and concluding sentences all against some objective criteria of identification (such as using the present texts of this study with the identified elements).

2. Process and Product Approaches to Writing

Both the process and product approaches to teaching writing skills could be utilized to help students write more competently. Some procedures based on the present research could include the following:

a. Models of 'good' writing would be given, such as the present texts, specifically focusing on the repetition links and bonding over the text and stressing their importance in a coherent text. Students could be asked to revise examples of the poorer ones.

b. The instructor could work through a few first example texts on the overhead projector with overlays or photocopies, and give students group work as well as individual work to revise and improve other texts.

c. Students could be asked to revise certain sections, taking note of the types of lexical items to stress and which ones to avoid, especially the overuse of simple repetition in adjacent sentences. The emphasis would be on trying to connect ideas over larger stretches of discourse. The use of dictionaries and a thesaurus would take on a more significant role in the writing class.

d. Students could use their own class writing samples to do the same as the above or take passages from their other course textbooks (especially communication arts students who are in journalism) and try to analyze parts of the text using the criteria outlined here before attempting to write one themselves.

e. There should be more stress on exercises at discourse level, developing writers' use of lexical variety, synonyms in adjacent sentences and distance in linking lexical items, similar to the ones suggested by McCarthy (1984) and Hoey (1991a). McCarthy (1984) mentions course books such as *Streamline Departures* (Hartley and Viney, 1978) and *Kernel One* (O''Neill, 1978) as being structure oriented with very little stress being placed on vocabulary at discourse level. There are many similar ones still in use. This is not to discredit the role these texts have, but the exercises do little to help the students to improve in discourse skills. McCarthy (1984) suggests a few exercises that are more appropriate at discourse level. For example, he recommends more exercises such as the one given below.

Exercise :   Make two separate texts from these seven sentences (advanced)
1. The sofa is covered in leather.
2. Lilac is very nice.
3. The footstool is too.
4. Cloth is not half as nice.
5. There's one in bloom just over the porch.
6. The scent is heavenly.
7. The suite is very plush.   (McCarthy, 1984, p.17)

The purpose of such an exercise as McCarthy points out is "to make the learner aware of the 'company words keep' and the cohesive power of such relations even where more obvious cohesive markers are absent. "Most important, we are departing from the word as item-to-be defined or word as class-slot-filler approaches" (p.17). He further points out that "Cohesive relations of synonymy, antonymy, and hyponymy across sentence and turn boundaries can be exploited in teaching.." (p.17).

Stotsky (1983) stressed the need for a more reading/writing integrated approach in developing students' writing focusing on models in raising students' awareness to the academic nature of prose. It is of interest to refer to Hoey (1991a) where he concludes with some reading and writing implications for the EFL classroom. The recommendations focus on making students and teachers aware of the nets of bonding over text and the relevant activities that would raise their awareness to the interrelations that lexis has over stretches of text.

Sample Writing Activities

Based on the principle of bonding over texts and taking a few of the ideas mentioned above on process and product writing, some suggested writing activities are given below. The activities first outline the steps that the students go through which relate to the sample texts that follow. Both group and individual classroom work can be done depending upon the needs of the students. In principle, an awareness-raising approach might be adopted in which the *perception* of lexical relations, repetition and bonding would be established before improved *production* of such elements is expected in students' writing. Thus, students are encouraged to notice these elements in others' writing and in their own before bridging exercises such as using cloze procedures and completion exercises which involve partial production in restricted contexts. These bridging exercises would be followed by improvement exercises in which students are asked to improve their own and others' texts using these elements and this, in turn, would then lead to incorporating such awareness into re-drafting of students own texts. Such a series of consciousness-raising steps is advisable to give students access to specific lexically-based strategies before there is much expectation of improvement of first or later drafts when attention is not especially drawn to those elements. The example texts are taken from the students' texts in the present study; however, teachers may want to choose texts from the course reading material used in class or those texts related to the students' academic course work at the university or even their own students' essay written work. In the steps below, the subjects doing the activity are understood to be the students unless otherwise mentioned. However, it is worth observing that teachers may well

need practice with such activities before introducing them to learners. The suggestions are, therefore, presumably also appropriate for use with in-service courses with teachers. The activities below are given from a more restricted (or guided) type to those that are more open and require the writer to do 'freer' types of writing activities. Although the lexical cohesion terminology is sometimes given below, students would only be given examples and the more common terms like synonyms, antonyms, parts of speech and so forth. The sequence of steps in the activities is only a guide which could be adapted to the students' needs.

Activity 1 - Whole Text (see page 371 for this text)

Step 1   Read Text 1 for general understanding of the text (A high rated text written by an English educated student in this activity).

Step 2   Read Text 1 to be aware of patterns:

(Students can be asked to look for a certain type and number of repetitions in the whole text or between certain sentences or find as many as possible and to use different colour pens for the different types. For example, red could be used to circle *parents* and black to circle *disagreement(s)*

Circle simple repetitions e.g. (parents) (parents) etc.

e.g. (disagreement(s)) - (disagreements(s)) etc.

e.g. (disagree) - (disagree) etc.

In Text 1 *disagreement(s)* has been circled for purposes of illustration. Students would be encouraged to verbalize in pairs, groups or in the whole class, the repetition relations they see and in their own words, their perceptions of the function of such repetition in context.

Step 3   Draw lines between the links of the type mentioned above. Note that there is no line between *disagreements* and *disagreements* in sentence 11 because the two words are in the same sentence and the present study focuses on links between sentences.

Step 4   Fill in the slots with a synonym - Text 1 could be re-printed omitting some of the words *disagreement* (see Text 1, sentence number 12)

(This could be done for antonyms, parts of speech etc.)

Draw dotted lines between words that have different parts of speech. For example, in Text 1, *disagreements* in sentence 2 and *disagree* in sentence 35 which is in a box refers to a complex repetition link in the present study. Notice also that in sentence 11 only one link is reported between *disagreements* and *disagree* although there are two lexical items of *disagreements* in that sentence.

Step 5 The above procedure is carried out with Text 2 (A D1 low rated text written by an English educated student) and students are asked to compare Texts 1 and 2 and to discuss in groups which text they think is better and why. This text has been reprinted below for comparative purposes. The words that are in brackets would be omitted and students asked to substitute synonyms. Again, they are encouraged to verbalize the repetition relationship and possible alternative synonyms.

Step 6 The above procedure would then be carried out with the D2 low rated text written by the same student who wrote Text 2) and students are also asked which of the two and perhaps three texts they consider better and why (see Text 2 in Appendix K).

Step 7 The teacher (as well as some students) could put some of the texts on transparencies and in using the overhead projector could demonstrate the above procedures with the same texts in the above activity and/or use other texts and/or some other samples of the students' writing. Throughout such demonstrations, discussion of alternatives and possible functions of each repetition, in context, is likely to help to raise students' awareness.

Step 8 Basically, the above steps were product oriented using the texts for modelling purposes. Step 8 could involve going through the above procedures on a few of the drafts of students' writing so that students would identify patterns in their drafts and improving the lexical patterning of subsequent drafts focusing on synonyms, antonyms, parts of speech and so forth.

Activity 2 Parts of the Text e.g. Introductory and Concluding Paragraphs

Since distance bonding indicated a significant feature in the HT in the present study, noticing and discussing the bonding from the introduction to the concluding paragraphs would

help make students aware of the importance of linking their later ideas to those they initially set up in the introduction. The same procedure as Activity 1 above could be carried out. See Texts 4a, 4b and 5a, 5b which represent the introductions and conclusions of Text 2 and 3 above respectively. Note the circles, boxes and lines which just focus on the simple and complex repetitions examined in Text 1 above.

Activity 3 - Rewriting

Step 1

In this activity, students would be given a paragraph from an essay that had been written by another student in class and improved upon by the teacher. Students would have the task of identifying the repetitions and/or recognizing the differences between the two paragraphs (that written by the student and the other written by the teacher). The example given hereunder is the introduction of Text 2 (copied again as text 4a) below which has been improved by the researcher. Students could be asked to show the differences in the text (some of which have been identified by underlining and lines), and discuss the improvements.

Sample Text for Activity 3 - Step 1

Since the moment of creation up till now, all children reach a certain age to become teenagers. However, this period of life will be difficult for the teenagers. It will also be hard for the parents to accept that their children are growing up. As a result, there may be conflicts between parents and their teenage children. But the question is what are the disagreements and the effects of these conflicts on the whole family.

Although a few of the links are not really improvements (e.g.children - children), the link between *teenagers* and *teenage*, *conflict* and *disagreement*; *difficult* and *hard* indicate the use of different parts of speech and synonyms respectively which learners are encouraged to use in their writing. The difference of lexical variety is apparent when the two introductions are compared.

Step 2

A further step is for students to improve their own writing and even each other's writing. Possibly this could be done in small groups, perhaps pairing lower with higher proficiency stuents so that the high proficiency students suggest improvements to the lower.

Activity 4 - Completion Exercise A

Students would be given an uncompleted paragraph with the task of writing a few sentences to complete the paragraph. This would be easier for them at first if they are given some guidance about the content and are instructed to use some repetition. For example, a sentence or two could be deleted from the different paragraphs in Texts 1 and 2 below and given to student individually or in pairs to work on.

Activity 5 - Completion Exercise B

A more open type of completion exercise would be to give students three quarters of an essay with the task of writing the concluding paragraph.

Activity 6 - Completion Exercise C

The same activity as 5 could be done except that students would have the whole essay except for the introduction which they would write individually or in groups.

Activity 7 - Additional Completion Exercises

Similar exercises could be devised as A, B, and C based on extracts of short stories and other fiction and subject specific expository texts. Ideally, such examples would be taken from texts which students are required to study in concurrent courses and thus this would link the writing class to their academic course work with specific reference to lexical patterns in texts.

The above text analysis activities have focused on a few links between a few sentences so as to show the principle of bonding in as clear and simple way as possible. They are only suggestive of different ways that the bonding can be applied in the teaching/learning of writing essays. Obviously, the activities in including all the possible networks of bonding in either the whole or parts of the text can become quite complex. How much is done and to which extent depends upon the needs and progress of the students. The approach above utilizes an integrative one of both process and product methods and, therefore, these strategies would fit both process and product approaches to the teaching of writing as well as an integrative one.

The texts used for illustrative purposes in a few of the above activities are given below.

371

Text 1 - EHT - D1

(1) Parents and children, especially teenagers, have problems we always hear about, problems if not all mostly have. (2) Such problems or precisely disagreements are as if habit that parents in the whole world have with their teenage children. (3) Teenagers are the major problem here. (4) Their likes and dislikes never agree with their parents' likes and dislikes. (5) Teenagers see that whatever their parents do is against their happiness and only to tease them and keep them angry. (6) Unfortunately, this habit of disagreement is always accompanied by its effects, which sometimes causes multi of problems for the whole family. (7) This is what we can call a disaster. (8) But what may be the reasons of such disagreements and what are their effects?

(9) Parents and teenagers or children differ all among the world. (10) Several things make them differ but the major ones are tradition and finance or money. (11) The different parents and teenagers have different disagreements and of course different reasons for these disagreements. (12) For example, the Lebanese have different --------------- than that of the Americans, why is that? (13) Because our oriental traditions differ from theirs or the American traditions. (14) We are oriental, we live in the Middle east, and we are Arabs. (15) Sometimes our tradition is a little bit tough and sometimes it is unbearable, but still we have to face it and live according to it. (16) Such a tradition causes a major reaon for disagreement between parents and teenagers, but why is that? (17) Simply because our teenagers want to live life as they say, and as they see in American movies. (18) They want to go out, have fun, spend most of the time at their friends' house and never study. (19) They want to go dancing, swimming and doing everything , they simply want to go on irresponsibility. (20) Such things cause the disagreement between the parents and the teenagers. (21) The parents are working and refusing for their children's benefit, but unfortunately these children think that their parents are happy to see them sad and miserable. (22) Another major problem that is considered as a reason for disagreement between parents and teenagers is money. (23) Teenagers want money and lots of it to show off, and to spend mostly on friends and silly things. (24) Some parents are not able to provide this money for their children and others who are capable refuse to give in order not to spend it only silly things and nothing considerable and others just give them as much money as they want. (25) And here troubles start. (26) Disagreements start on the reason that the parents refuse to give the money to the children and the reason the children want the money for.

(27) Such disagreements always have effects on the whole family, and unfortunately, these effects are bad. (28) Some families are ruined and destroyed because of these effects, and some families are scattered. (29) And sometimes, families live under the same roof but each lives for himself or herself and not for the sake of others too. (30) Of course such effects on families also affect the whole society with time, and after that no body knows what will happen. (31) But also these disagreements may effect only one of the two groups, either the parents themselves or the teenagers. (32) The parents are affected because troubles may grow between the mother and the father, and I say this is a disaster. (33) As for the teenagers, they may be sad all the time or sometimes depressed.

(34) It is true that there are lots of problems and disagreements between parents and children, teenagers in particular, but it is not true that the effects are always bad. (35) Parents all among the world prefer what is best for their children, and if they refuse or disagree that is for the sake of their children and mostly to avoid major problems and troubles that cannot be faced or solved in the future.

Text 2 - ELT - D1

the teenagers problem.

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) As a result. we have many reason for disagreements. (3) But the question is what are those reasons for **(disagreements).?** and the effects of these disagreements on the family.

(4) The period of teenagers is one of the most **(difficult)** period in our life, because we have many changes in our cycle of life and in our personality. (5) For that we have many **(reasons)** for disagreements between Parents and teenagers and these reasons are. (6) First of all, the teenagers feel himself an adult, he want to do whatever comes into his mind, he want to out after midnight whenever he want, having fun with whoever he want also. (7) Second the school has a big importance in our life and in our way of doing things. (8) Also our environement has a big **(importance)** on us. (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want. (10) The disagreement cause a lot of problem between the family and has a **(big)** effect. (11) First, the **(disagreement)** has a big **(effect)** on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. (12) Second, he may leave the home and make his own life alone like in the United states of America. (13) When the boy have 18 years old or before he **(leave)** the house and never come back to his parents. (14) he do whatever he like.

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their **(effects).** (16) our world face these big and dangerous problem because it has many effects in teenagers life. (17) In my opinion we should work to solve this **(problems)** in anyway.

Text 4a - Introduction to Text 2 in Activity 1

the teenagers problem.

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) As a result. we have many reason for disagreements. (3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

Text 4b - Conclusion to Text 2 in Activity 1

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects. (16) our world face these big and dangerous problem because it has many effects in teenagers life. (17) In my opinion we should work to solve this problems in anyway.

(Note: The link indicated in sentences 1 and 16 between the two lexical items *teenagers* is one of part of speech referred to in the present study as complex repetition (CR2).

Text 5a - Introduction to Text 3 in Activity 1

The disagreement Between Parents and their children

(1) Every man have to pass in many steps to become a real man, and each step has it's problem and consequences. (2) For that, always parents have disagreements with their teenagers, in which this effect on the hole family not only on the parents, but also on the children. (3) The question is: what are those reasons? and, what are their effects?

Text 5b   Conclusion to Text 3 in Activity 1

(17) To conclude, we have many reason that carry the parents to the disagreement but we have also many effect on the teenagers behaviour and on the family. (18) In my opinion that fight never come to an end and parents should find another way to act with their children.

(Note: Clearly, there are more links between the introduction and the conclusion in texts 5a,b than in 4a,4b. The link indicated in sentences 2 and 17 between the two lexical items *teenagers* is one of part of speech referred to in the present study as complex repetition (CR2).

3. Evaluating Writing

Both students and teachers could use the lexical cohesive categories that were significant to evaluate student writing.   After activities similar to the two oulined above have been done perhaps both teachers and students would be more aware of the significance of lexis at the discourse level and incorporate it in their evaluations.   Some inclusion of the cohesive categories could be added to the evaluation criteria in the EFL Program .   Looking at this aspect of the students' writing would help the instructors go beyond the holistic analysis (White, 1994) and give more relevant and meaningful feedback to the students. Students could evaluate lexical cohesive categories in texts for themselves or in groups for the coherence of the sub texts and see whether the objective measure of topic opening and topic closing sentences from the present research corresponded to their intial conception of them in the texts.

4. Syllabi

A further aim might be to work on a more meaningful integrated syllabus based on discourse levels. This would be a guide for the teaching of the Freshman I English Course taking into account the students' needs for variety, relevance and active participation which were expressed in the interview comments in the present study.

Crombie (1983) recommends that English language syllabi should be discourse based composed of a series of 'related frames'. In the same vein, McCarthy (1994) stressed the importance of the writing/speech dichotomy as a continuum and points out that most syllabi in language teaching divide up the skills. He, however, advises that one should take a 'landscape'view of language especially in language teaching and recommends the inclusion of lexical cohesion in the syllabus at the discourse level. He makes the following claim:

> "...it could be argued that a feature such as lexical cohesion is an
> aspect of the language system and can thus be taught as language
> knowledge...This would mean not only telling learners what the
> synonyms and hyponyms of a particular word or set of words are,
> but also demonstrating that synonymy and hyponymy *in use* are often
> involved in the creation of well-formed text..." (p.175)

Typical writing objectives in a FI syllabus stress writing of the paragraph and the essay and the parts of topic and thesis statements and supporting sentences/paragraphs. A typical week's work in the syllabus includes a few words on the type of paragraph/essay being taught/learned (e.g. cause-effect/comparison/contrast) and the grammatical focus (e.g. review of tenses, subordinating clauses, misplaced modifiers). Taking into account McCarthy's (1994) view of the integrated syllabus which includes cohesion, it is recommended to have the syllabus outline explicitly the use of lexical cohesion. Reference to lists of 'connecting words' in the textbooks should be supplemented with discoursal exercises (samples) in the syllabus such as the two oultined above and applied in the classroom.

III. Recommendations for Future Research

This research study is the first of its kind to focus on EFL writers' texts, certainly in Lebanon. Much work remains to be done, to confirm the results and refine the methodology. Below are a few suggestions for future research.

1. To devise lexical cohesion materials and test the effect of them in an experiment using a control group design in the F1 course and other courses

2. To apply the same analysis or an adaptation of it to a comparative study of native versus non-native speakers of English in EFL Composition Programs.

3. To apply the same analysis or an adaptation of it to a comparative study of different genres either in an academic context and/or in a professional one, specifically looking at the different thresholds of bonding in texts representing several genres.

4. To investigate ways to teach students how to analyze their texts, make summaries and test the effect of this on students' writing in general.

5. On the basis of this research, to explore teachers' and students' perceptions of topic sentences contrasted with an independent objective measure of topic sentences. It is presumed that teachers can identify topic sentences, but evidence is needed to support this. It is assumed that some students can not identify topic sentences, but this needs to be confirmed. This can be tested objectively using the bonding analysis. These studies could be done with both a reading and/or writing perspective.

6. To check for any significant differences in lexical cohesion analysis of student texts across different topics and relating to different disciplines.

7. To devise materials such as the present 80 texts with their matrices and assess their use in experimental testing or natural settings.

8. To study the relationships between coherence and text level ratings of the sub-texts with ratings of lexical cohesion.

9. To compare the composing behaviours of the French and English educated students so that any needed appropriate instruction may be given. The 'small' differences found in the present study between the FT nd ET are suggestive of different learning styles and strategies, needs and attitudes in the learning of composition writing that may warrant specific attention in the classroom.

10. To explore possible computer aid in the learning and teaching of lexical cohesion in the writing of the composition. To develop a software program to carry out the kind of analysis which, in this study, was carried out by hand. This will considerably help with preceding recommendations.

The above recommendations are only some of the avenues along which the present research can be followed up on. It is only when we begin to understand our students' writing that we can provide them with the opportunities to develop and grow in this important skill.

Concluding Remarks

In giving a few final words, I can not but emphasize the bond between the teacher and the student, between teaching and learning in the classroom. Gardner (1984) comments on the importance of the classroom in relation to the development of student discourse.

"The aim of the foreign language class is that learners can leave
the class with the ability to produce and interpret discourse." (p.103)

More specifically, Harnett refers to Witte and Faigley (1981) on the importance of cohesion:

"They have suggested, however, that cohesion analysis can help
distinguish stages of writing development and might provide
methods of explaining concretely some of the differences
between good and poor student writing." (1986, p.143)

It is in this foreign language context of writing classes in Lebanon that this research has studied cohesion in student writing. I am tempted here to quote Gibran's words which I believe sum up teaching and learning and the role of the teacher.

" If he is indeed wise he does not bid you enter the house of his
wisdom, but rather leads you to the threshold of your own mind." (p.56)

It is hoped that our students will benefit from this work to be able to write more clearly what is in their hearts and minds.

I would like to close this present study by ending as Hoey (1991a, p.245) did without sounding too repetitious. All theses must end somewhere; I realize there are many points not dealt with in depth and many others that need attention, but all theses must end somewhere, and I hope that some of my colleagues will be tempted to continue the work bonding their work to mine 'to add what they have to say to the endlessly expanding net that is the sum of all human discourse.'

APPENDIX A

MAP OF LEBANON

APPENDIX B
HISTORICAL BACKGROUND OF LAU
(Academic Catalogue, 1996, pp.4-5)

The Lebanese American University (LAU) is a multi-campus career oriented institution which prepares students for responsible living, fully aware of the rich heritage and multiple needs of their respective communities.

With its three campuses in Beirut, Byblos and Sidon, the university is at the crossroads of many interacting educational systems. Lebanon's academic freedom is essential to a climate of intellectual growth and the fruitful confluence of cultures. The country's rich multi-faceted heritage enhances the student body's international character, representing over 40 nationalities.

The university's early days in 1835 find a reminder in an engraved column in Beirut's city center: "Site of the first edifice built as a school for girls in the Turkish Empire." The modest beginnings spawned the American School for Girls. Then in 1924 a two-year program was added to the high school, providing a junior college curriculum. In 1927 the American Junior College for Women became a separate institution and was transferred to Ras [head or central] Beirut. Six years later it moved to its present location.

In 1948-49 the AJCW program was expanded into a university-level institution under the name of Beirut College for Women. During that academic year, it was granted a provisional charter by the Board of Regents of the University of the State of New York and authorized to bestow the Associate in Arts and Associate in Applied Sciences degrees for a two-year course. In 1955 the Board of Regents granted the College an absolute charter with all its rights and privileges, including the authority to hand out Bachelor of Arts, Bachelor of Science, Associate in Arts and Associate in Applied Science degrees. As a recognized university-level liberal arts college, it played a key role in serving the educational, social and economic needs of the Middle East.

In 1970 another milestone was reached when the Lebanese Government officially recognized BCW's BA and BS degrees as equivalent to the national Licence. Having accepted men into some AA programs, BUC in 1973 changed its name from Beirut College for Women to Beirut University College. The following academic year five BA/BS majors were opened to male students, and in October 1975 men were admitted into all programs. In 1978 BUC opened an off-campus program in the north and a year later another one was operational in the south.

Adding to the college's constantly evolving programs, in 1985, the Board of Regents amended the charter to include two branches - one in the north of Beirut and one to the south. In 1987, based on the amended charter, BUC opened its northern branch on the outskirts of the historical port of Byblos in rented buildings in Amchit. In October 1991 classes started in the newly built campus at Blat overlooking Byblos. It was officially inaugurated on July 16, 1992. The southern Sidon branch operates in rented facilities.

According to a Board decision, BUC became a University in October 1992. In 1994, the Board of Regents in New York approved BUC's request to change into the Lebanese American University (LAU), reflecting further growth and the addition of several professional schools.

The academic calendar is divided into two four-month semesters and two summer modules with students evaluated on the basis of credit hours.

APPENDIX C

ENGLISH COURSE OBJECTIVES

1992-1993 *(Academic Catalogue, pp.109-110)*

5511 Freshman English I (3 and 5 credits)
A required course assigned to establish effective reading and writing habits, with a basis in literary seletion and discussion. Emphasis is placed on the word, the phrase, the paragraph, as well as the essay.

5512 Freshman English II (3 credits)
A required coure designed to reinforce the reading and writing habits established in English 5511. Emphasis is placed on the essay, as well as on research methods. The major project is the research paper.

5521 Communication Arts (3 credits)
A study of the elements of oral communication, accompanied by practice and experience in platform speaking (including radio and television speeches), group discussion and oral reading.

5522 Sophomore Rhetoric (3 credits)
An advanced composition course which prepares students to read perceptively, to evaluate opinion, and formulate and present their own opinions in writing based upon the best available evidence and in utilizing the methods of formal argument.

1995-1996 *(Academic Catalogue, pp. 114)*

ENG 009 English I (3 credits)
A required course designed to establish effective reading and writing skills. Emphasis is on the paragraph format ending with the essay format. Oral/aural work and relevant stuy skills are integrated. Academic style and task-based work are stressed.

ENG 101 English II (3 credits)
A required course designed to establish effective reading, writing, oral/aural, and study skills. Emphasis is on the essay. Academic style and task-based work are stressed.

ENG 102 English III (3 credits)
A required course designed to establish advanced reading and writing skills. Emphasis is on the essay as well as research techniques. The major project is the expository research paper. Academic and literary styles are emphasized.

ENG 201 Communication Arts (3 credits)
A required course on the elements of oral communication along with practice in platform speaking, in exposition and persuasion. Emphasis is on the use of correct and effective language and organization skills in preparing, delivering, and evaluating different types of oral presentations in front of a live audience. Sample live or videotaped speeches are analyzed.

ENG 202 Sophomore Rhetoric (3 credits)
A required course for practice in reading, evaluating, formulating and presenting opinions in writing based on the best available evidence, using the methods of formal argument. The major project is the persuasive and/or critical research paper. Both academic and literary styles are emphasized.

APPENDIX D

ESL COMPOSITION PROFILE

STUDENT   DATE   TOPIC

	SCORE	LEVEL	CRITERIA	COMMENTS
CONTENT		30-27	EXCELLENT TO VERY GOOD: knowledgeable • substantive • thorough development of thesis • relevant to assigned topic	
		26-22	GOOD TO AVERAGE: some knowledge of subject • adequate range • limited development of thesis • mostly relevant to topic, but lacks detail	
		21-17	FAIR TO POOR: limited knowledge of subject • little substance • inadequate development of topic	
		16-13	VERY POOR: does not show knowledge of subject • non-substantive • not pertinent • OR not enough to evaluate	
ORGANIZATION		20-18	EXCELLENT TO VERY GOOD: fluent expression • ideas clearly stated/supported • succinct • well-organized • logical sequencing • cohesive	
		17-14	GOOD TO AVERAGE: somewhat choppy • loosely organized but main ideas stand out • limited support • logical but incomplete sequencing	
		13-10	FAIR TO POOR: non-fluent • ideas confused or disconnected • lacks logical sequencing and development	
		9-7	VERY POOR: does not communicate • no organization • OR not enough to evaluate	
VOCABULARY		20-18	EXCELLENT TO VERY GOOD: sophisticated range • effective word/idiom choice and usage • word form mastery • appropriate register	
		17-14	GOOD TO AVERAGE: adequate range • occasional errors of word/idiom form, choice, usage but meaning not obscured	
		13-10	FAIR TO POOR: limited range • frequent errors of word/idiom form, choice, usage • meaning confused or obscured	
		9-7	VERY POOR: essentially translation • little knowledge of English vocabulary, idioms, word form • OR not enough to evaluate	
LANGUAGE USE		25-22	EXCELLENT TO VERY GOOD: effective complex constructions • few errors of agreement, tense, number, word order/function, articles, pronouns, prepositions	
		21-18	GOOD TO AVERAGE: effective but simple constructions • minor problems in complex constructions • several errors of agreement, tense, number, word order/function, articles, pronouns, prepositions but meaning seldom obscured	
		17-11	FAIR TO POOR: major problems in simple/complex constructions • frequent errors of negation, agreement, tense, number, word order/function, articles, pronouns, prepositions and/or fragments, run-ons, deletions • meaning confused or obscured	
		10-5	VERY POOR: virtually no mastery of sentence construction rules • dominated by errors • does not communicate • OR not enough to evaluate	
MECHANICS		5	EXCELLENT TO VERY GOOD: demonstrates mastery of conventions • few errors of spelling, punctuation, capitalization, paragraphing	
		4	GOOD TO AVERAGE: occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured	
		3	FAIR TO POOR: frequent errors of spelling, punctuation, capitalization, paragraphing • poor handwriting • meaning confused or obscured	
		2	VERY POOR: no mastery of conventions • dominated by errors of spelling, punctuation, capitalization, paragraphing • handwriting illegible • OR not enough to evaluate	

TOTAL SCORE   READER   COMMENTS

(Jacobs, et.al., 1981)

APPENDIX E

LAU EFL WRITING EVALUATION CRITERIA (LOC)

Scoring Scale

A	**5**	**L**	Fluent in use of language; syntactic and vocabulary variety
		O	Global and local organization excellent
		C	Knowledgeable and support extensive and relevant

B	**4**	**L**	Good command; shows some syntactic and vocabulary variety
		O	Global and local organization adequate
		C	Wide range of knowledge and coverage; has support but not varied nor specific enough

C	**3**	**L**	Contains some errors but meaning not distorted; very little variety
		O	Global and logical organizAtion is fair but local incoherent sometimes
		C	Shows fair knowledge and coverage; needs more specific support

D	**2**	**L**	Errors in sentence structure and usage - no variety
		O	Global fair, but logical and local development lacks focus
		C	Very little knowledge and coverage of topic; little support; redundant

F	**1**	**L**	Many and serious errors throughout
		O	May have global paragraph order but extremely weak in logical and local development of ideas
		C	Extremely limited; no support or inadequate; little relevance, pointless, poor quality

Scale:

A (5) 90-100%
B (4) 80-89%
C (3) 70-79%
D (2) 60-69%
F (1) below 60%

Language = Tone, style, sentence structure, grammar, vocabulary, coherence, mechanics

Organization = Format, logical order of ideas (globally and locally)

Content = Main and minor ideas

LAU EFL Composition Evaluation Criteria (Cont'd)

LANGUAGE (L)

Tone	Appropriateness and effectiveness in creating an atmosphere or mood - consistency
Style	Appropriateness and effectiveness in using the language features
Sentence Structure	Correct use of: types of sentences, types of sentence openings, word order, relations between sentences
Grammar	Correct use of: tenses, subject/verb agreement, modals, voice, clauses, phrases, articles, prepositions etc.
Diction	Correct use of: parts of speech, choice of words, range of words
Coherence	Correct use of: cohesive devices within and between sentences - *transitions, conjunctions, pronoun reference, repetition of key terms, signal words, parallelism*
Mechanics	Correct use of: spelling, punctuation, capitalization Legible handwriting and tidiness

ORGANIZATION (O)

Format	Correct indentations for new paragraphs
Logical Order	*Global:* correct order of introductory, supporting (body) and concluding paragraphs with clear thesis statement Well developed and coherent ideas on one or a combination of of the organizational types: chronological (narration and process), spatial (description), cause and/or effect, comparison and/or contrast, climactic (topical), argumentation, problem/solution. *Local:* correct use of logical transitions between paragraphs, logical sequence of main and minor ideas within and between sentences

CONTENT (C)

Main ideas	Clear and relevent - clear thesis or proposition
Minor ideas	Clear, relevant, adequate topic coverage and development; accurate, relevant, clear illustrations and evidence

APPENDIX F

PILOT ESSAY TOPICS
Spring Semester 1993

DIAGNOSTIC for all courses:
Write a well-developed essay of approximately 500-600 words (3-5 paragraphs) on the following topic. Any other topic will not be evaluated.(Common directions given to all courses at diagnostic, mid and final exams)

Give the reasons why students may sometimes be dissatisfied with college life and the consequences of this dissatisfaction n their work and attitude.

MID TERM EXAM

Freshman English I (5511)
(5 credits)
1. Narrate an incident which made you feel proud of your culture as a Lebanese.
2. Women are often viewed as the 'weaker sex'. Illustrate.
(3 credits)
1. With the new improvements in technology, man's life at home is made easy. Illustrate.
2. Describe the city you would like to live in.

Freshman English II (5512)
1. Illustrate how society has become used to ready-made products.
2. Discuss causes and effects of prejudice in your society.

Sophomore Rhetoric (5522)
Argue for or against one of the following:
1. Having a big family these days is feasible.
2. 'Women must not depend upon the protection of man but must be taught to protect herself.' Susan Brownwell Anthony.

FINAL EXAM

Freshman English I (5511)
(5 credits)
1. Compare and contrast the overall performance of computers and human beings at work.
2. Give the causes and effects of loneliness among young people.
(3 credits)
1. Describe two families you know. Compare/contrast the way these two families bring up their children.
2. Discuss reasons and results of regular exercise and good eating habits on our health.

Freshman English II (5512)
1. What career do you plan to pursue? Explain the reason why you chose this field and tell what you hope to accomplish. In other words, give the reasons and the possible results of your choice.
2. Describe a formal social gathering that you have attended, such as a wedding or a funeral.
Compare/contrast the appearance and behavior of people on such occasions with the way they usually look and behave.

Sophomore Rhetoric (5522)
Argue for or against one of the following:
1. The evaluation of teachers by students is a positive contribution in the devlepment of the teaching learning situation at unviversities.
2. Honor lists and a probation system encourage learning at universities.

APPENDIX G

MAIN STUDY ESSAY TOPICS
Fall Semester 1993-94

DIAGNOSTIC for all courses
Write a well-developed essay of approximately 500-600 words (3-5 paragraphs) on the following topic. Any other topic will not be evaluated.(Common directions given to all courses at diagnostic, mid and final exams). Time: 90 minutes.

Give the reasons for disagreements between parents and teenagers and the effects of these disagreements on the family.

MID TERM EXAM

Freshman English I (5511)
(5 credits)
1. Narrate an event that made you feel proud.
2. Travelling is healthy. Illustrate.
(3 credits)
1. Success can be measured by many things. Illustrate.
2. Compare and contrast an educated mother with an uneducated one in relation to the family.

Freshman English II (5512)
1. Discuss the reasons why man continues to develop technology and the effects of this development on man and his environment.
2. Illustrate how man adapts to different weather conditions.

Sophomore Rhetoric (5522)
Argue for or against one of the following:
1. Man is essentially egoistical; i.e. thinks of his own individual interests above all else.
2. We are producing a generation that is infuenced by superficiality and appearances.

FINAL EXAM

Freshman English I (5511)
(5 credits)
1. Discuss the reasons why man continues to make wars and the effects of these wars on man himself and his environment.
2. Compare and contrast the family in the past and the family today.
(3 credits)
1. Where there is a will there is a way. (Illustrate)
2. Describe life in the year 2050 from a technological point of view

Freshman English II (5512)
1. Compare and contrast working mothers with mothers at home.
2. Discuss reasons for parental interference with children's career choices and the effects it has on those involved.

Sophomore Rhetoric (5522)
Argue for or against one of the following:
1. The family is a dying institution.
2. Prostitution should be viewed more favorably.

APPENDIX H

THE POLITICAL TEXT

(The text chosen represents the first forty sentences of *Chapter One: Introductory* of the first volume of a three volume work, first published in 1942, entitled *Masters of Political Thought;* the volume, by Michael B. Foster, is subtitled *Plato to Machiavelli.*", Hoey, 1991a, pp.246-248)

1 What is attempted in the following volume is to present to the reader a series of actual excerpts from the writings of the greatest political theorists of the past; selected and arranged so as to show the mutual coherence of various parts of an author's thought and his historical relation to his predecessors or successors; and accompanied by introductory notes and intervening comments designed to assist the understanding of the meaning and importance of the doctrine quoted. 2 The book does not purport to be a history of political theory, with quotations interspersed to illustrate the history. 3 It is rather a collection of texts, to which I have endeavoured to supply a commentary. 4 I have tried rather to render the work of Aristotle, Augustine, and the rest accessible to the student, than to write a book about them; and the main object of this work will have been achieved if it serves not as a substitute for a further study of the actual works of these authors, but as an incentive to undertake it.

5 Nor does the commentary make any pretension of being exhaustive. 6 Very often after a long passage has been quoted a single point only has been selected for comment; and sometimes this point has been selected not because it was the most important, but because it was one on which I had something to say. 7 I have not tried to cover all the ground, and shall have done my part if the reader is stimulated, by the samples which I have offered, to complete a commentary of his own.

8 The selection has been confined to a few authors, for reasons not only of space, or of limitations of my own knowledge (though either of these reasons would have been sufficient), but because it is part of the plan of the book to concentrate attention upon the most important works. 9 A knowledge of Plato's *Republic,* of Aristote's *Politics,* of parts of Augustine's *City of God,* belongs to a general education. 10 The works of lesser writers, or the lesser works of these writers, are doubtless worth reading; but a man who is not a specialist may ignore them without reproach.

11 If the commentary is secondary to the text, still more so must be any introductory remarks which I make here. 12 In commending the writings which follow to the reader's attention, I will indeed stake my credit on the assertion that the study of them will correct the judgment and enlighten the understanding upon matters in which it is important to be enlightened and correct. 13 But if a proof of this assertion is demanded, there is no proof except that of asking the inquirer to make the experiment. 14 The introducer may suggest lines of reasoning, he may try to convey certain lights which he has himself derived from the study, but in doing this he must be tentative and not dogmatic, and in the last resort he must say to the reader, "Go and read for yourself, and try whether this is confirmed by your experience." 15 In this respect his position is like that of the critic of a work of art. 16 However useful the critic's remarks may be in preparing an approach to the work, they can never dispense the reader from the necessity of studying the work itself, nor deprive him of the right, on the basis of this study, of turning critic himself and standing in judgment on the reasonings by which he was led to it in the first place.

17 What, then, is the advantage which we may hope to derive from a study of the political writers of the past? 18 A view prevalent in earlier ages would have provided a simple answer to this question. 19 A work of politics, it would have been said, is the handbook of an art, the art of governing. 20 Just as a man of superior knowledge or skill in the art of carpentry may compile a work in which his knowledge is made available to those who aspire to be good carpenters, so a man of superior wisdom in the art of politics may set down his knowledge in a book for the instruction of those whose business it is

to found, govern, or preserve states. **21** If this is what political theory is there is no difficulty in determining what advantage may be expected from the study of great political works. **22** They will be consulted for purposes of instruction by those who have to govern states.

23 Some of the greatest political writers <*footnote omitted here*> have believed themselves to be offering such a system of practical instruction, and many students of their works in the past have undoubtedly sought, and may have found in their pages that practical guidance which they have professed to offer. **24** But this is certainly not the advantage which a modern reader can be promised from a study of their works. **25** This entire conception of politics as an art and of the political philosopher as the teacher of it rests upon assumptions which it is impossible to accept. **26** If it were correct, the writers of political theory would need to be themselves past masters in the art of governing, and statesmen would need to apprentice themselves to them in order to learn their job. **27** But we find that this is not so. **28** Few political philosophers have themselves exhibited any mastery of the art of governing, and few successful statesmen have owed their success to the study of political writings.

29 The reason why politics cannot be an art is that the historical situation in which the politician has to act is always unique. **30** An art presupposes a material which does not vary. **31** There can be an art of carpentry, because the natures of oak, deal, and other woods in which the carpenter works remain constant in essentials. **32** Of course it is true that every carpenter who sets out to make an oak table is in a situation in some respects different from that of every other carpenter who has done the same. **33** But the differences are accidental, not esential; they may affect his application of the principles of his craft, but they will not modify the principles themselves. **34** On the other hand, situations in which the statesman has to act - and by the statesman I mean not only the professional politician, but every citizen who has a share in the government of his country - these situations are unique in a more thoroughgoing sense. **35** They are not to be covered by a single, unchanging set of principle, requiring only to be differently applied. **36** And if the would-be statesman were to succeed in eliciting a system from the works of a previous writer, it would inevitably be a system applicable only to an age already past.

37 I do not think that I need elaborte this point at length, for I do not think that any reader of this book, whatever benefit he may expect to derive from it, will expect this benefit. **38** He will not expect the works which follow to provide the same kind of instruction for the political student as his medical textbooks provide for the medical student. **39** If he did he would certainly confine his attention to the most up-to-date, and would no more think of learning his art from Aristotle than the medical student thinks of learning his from the pages of Galen.

40 If political theory is not a body of science for the instruction of statesmen what is it?

Table 4.1

The symbols for the various types of repetition are as follows:

sr	simple lexical repetition
cr	complex lexical repetition
smp	simple mutual paraphrase
spp	simple partial paraphrase
s	substitution
co-ref	co-reference
e	ellipsis
d	deixis
*	arguable case (according to criteria)
†	arguable case (discourse external)

Table 4.1 shows all the links in the passage. The first item in each pair is from the earlier sentence (i.e. the vertical column); the second item is from the later sentence (i.e. the horizontal column).

Table 4.1 — Repetition matrix (left and middle portions)

Repetition matrix (right portion)

APPENDIX J

Cell Matrix for the Political Text

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(2)	6														
(3)	2	1													
(4)	5	1	2												
(5)	1	ø	1	ø											
(6)	3	1	2	1	1										
(7)	4	ø	3	2	2	2									
(8)	5	1	2	4	ø	1	1								
(9)	1	1	ø	2	ø	ø	ø	ø							
(10)	2	ø	ø	2	ø	ø	1	2	1						
(11)	1[3]	ø	3	1	1	2	2	1	ø	ø					
(12)	3[4]	ø	1	3	ø	1	2	1[2]	ø	2	1				
(13)	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	1				
(14)	2[3]	ø	1[2]	2[3]	ø	[1]	2[3]	[1]	ø	1	[1]	3	ø		
(15)	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	ø	2		
(16)	1	ø	ø	1	ø	ø	1	1	ø	1	1	2	ø	3	3

Table 4.3

	(1)	(4)	(12)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)
(17)	3	2	2	1																							
(18)	ø	ø	ø	ø	ø																						
(19)	2	1	1	1	2	ø																					
(20)	2	1	1	1	2	ø	5																				
(21)	4	2	2	2	4[5]	ø	3	3																			
(22)	1	ø	ø	ø	1	ø	1	3	2																		
(23)	4	3	2	2	4	ø	2	3	4	1																	
(24)	2	2	3	3	3	ø	1	1	3	1	4																
(25)	2	ø	ø	ø	1	ø	2	3	1[2]	1	2	ø															
(26)	3	1	1	ø	2	ø	3	6	2	3	3	ø	4														
(27)	ø	ø	ø	ø	1	ø	ø	ø	ø	ø	ø	ø	ø	2													
(28)	2[3]	2	2	2	3	ø	4	5	3[4]	2	3	2	3	6[7]	ø												
(29)	1	ø	ø	ø	1	ø	2	2	1	ø	1	ø	2	2	ø	2											
(30)	ø	ø	ø	ø	ø	ø	1	1	ø	ø	ø	ø	1	1	ø	1	1										
(31)	ø	1	ø	1	ø	ø	1[2]	2	ø	ø	ø	ø	1	1	ø	1	1	2									
(32)	ø	ø	ø	ø	ø	ø	ø	1	ø	ø	ø	ø	ø	ø	ø	2	ø	2									
(33)	ø	ø	ø	ø	ø	ø	1	1	1	ø	ø	1	2	ø	1	1	1	2	2								
(34)	1	1	1	ø	1	ø	2	3	1	2	1	ø	1	3	ø	3	4	ø	ø	3	ø						
(35)	ø	ø	ø	ø	ø	ø	ø	1	ø	ø	ø	ø	1	ø	ø	1	1	1	3	1							
(36)	3	1	1	1	2	ø	2	2	2	1	5	1	1	2	ø	2	1	ø	1	ø	1	1	2				
(37)	1,2	2	2	1	2[3]	ø	1	1	2	ø	ø	2	ø	ø	ø	ø	ø	ø	ø	ø	ø	1	ø	ø			
(38)	4	3	3	2	3[4]	ø	3	4	4	1	4	2	2	3	ø	3	1	ø	ø	ø	1	ø	ø	2	3		
(39)	1	3	3	1	1	ø	1	2	2	1	3	2	2	2	ø	3	1	1	1	ø	ø	ø	ø	1	1	7	
(40)	2	2	ø	ø	1	ø	1	3	2	2	2	ø	2	4	ø	2	1	ø	ø	ø	ø	2	ø	1	ø	2	1

Table 4.4

(Hoey, 1991a, p.90, 97)

APPENDIX K

STUDENT SAMPLE ESSAYS

This appendix includes:
1) D1 and D2 texts of the 8 sample texts, (1 ELT, 1 FLT; 1 EHT, 1FHT)

2) Student 1's D1 sub-texts evaluated for the contribution of lexical cohesion to the coherence of the sub-text formed.

Text 1 - Diagnostic 1 - Full Text - Low English Educated Raters' Percentage Holistic Scores 46 50

the teenagers problem.

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) As a result. we have many reason for disagreements. (3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. (5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. (6) First of all, the teenagers feel himself an adult, he want to do whatever comes into his mind, he want to out after midnight whenever he want, having fun with whoever he want also. (7) Second the school has a big importance in our life and in our way of doing things. (8) Also our environement has a big importance on us. (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want. (10) The disagreement cause a lot of problem between the family and has a big effect. (11) First, the disagreement has a big effect on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. (12) Second, he may leave the home and make his own life alone like in the United states of America. (13) When the boy have 18 years old or before he leave the house and never come back to his parents. (14) he do whatever he like.

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects. (16) our world face these big and dangerous problem because it has many effects in teenagers life. (17) In my opinion we should work to solve this problems in anyway.

Student 1
Text 2 Diagnostic 2 - Low - English Educated
Raters' Percentage Holistic Scores 60 58

The disagreement Between Parents and their children

(1) Every man have to pass in many steps to become a real man, and each step has it's problem and consequences. (2) For that, always parents have disagreements with their teenagers, in which this effect on the hole family not only on the parents, but also on the children. (3) The question is: what are those reasons? and, what are their effects?

(4) When a children become a teenagers, his life change. (5) Not only his age augment but also his problems augment. (6) And with the change on his life, he has to solve many problems with his parents. (7) for that, we have many reasons that face the parents in which they disagree with their children. (8) First of all, the teenagers become too many new thing in his life. (9) he would be able to drive a car or go out with his friend and return back after midnight. (10) he may also go out with friend who have bad reputation and become a bad boy in his environement. (11) A second reason is that the teenagers do whatever he want without asking his parents. (12) A third reason is that the teenagers become a bad student in his school and fail his classes with low grades.

(13) But on the other hand, the disagreements has many effects on the hole family. (14) The teenagers become to hate his parents, he did not respect them by doing whatever come in his mind, he become to fight his brother. (15) Also, the teenagers may also leave the house and maintain a life alone in other country and this effect on the structure of the family when one member leave forever. (16) Finaly, the disagreement effect on the teenagers personality which is a big problem to become a real man.

(17) To conclude, we have many reason that carry the parents to the disagreement but we have also many effect on the teenagers behaviour and on the family. (18) In my opinion that fight never come to an end and parents should find another way to act with their children.

Student 2

**Text 3 - Diagnostic 1 - Full Text - Low French Educated
Raters' Percentage Holistic Scores 65 60**

1 The disagreement of teenagers with their parents has been a serious problem since the existance of families. 2 All of that is because generations differ from each other. 3 With the passage of generations human knowledge increases and gets inriched with the experience of its preceeders. 4 Through this increase of knowledge humans start depending on their own at an early age. 5 Therefore they become masters of themselves including body and brain. 6 This mastery of young humans over themselves is not encouraged by loving parents. 7 parents dont like their children taking care of themselves by themselves. 8 They believe that they have to eather decide or help in the deciding of their children. 9 This is because parents dont realize that the baby they had is now turning into a man. 10 This is why they remain treeting him as a child untill the conflict between parents and their children arise.

11 Few examples of issues that parents cant let their children to do, is to have a girlfriend or boyfriend at an early age. 12 At that point parents startes advising their teenaged children not to wast time in loving sombody. 13 first of all because they think that loving somebody other than their parents take away lots of their love and care which should be for parents. 14 Then they say that falling in love at an early age makes them neglect many of their jobs such as studing helping parents in free times. 15 This for example is one of the main reasons which leads to the disagreement between parents and teenagers. 16 Another example which is common to all teenagers, is their will to go out whenever they want. 17 In fact most parents are very stricked in this field for they dont let their children to go out whenever they want. 18 Their reason in preventing their children to go out whenever they want is that they are afraid, Afraid of what we can ask. 19 Parents in our ages are afraid not of one object but of numerous. 20 few of their reasons is that they are afraid of their children getting used to bad habits such as drugs.

21 These are few things that parents dont let their children to do. 22 Parents think that by preventing their children of doing these things, they think that they are keeping them safe from evil. 23 But in fact due to this kind of treatment the relation between parents and children are geting worst day after day.

24 This kind of treatment in my opinion leads to the failure of the family at an early stage.

Student No. 2

Text 4 - Whole Text - Diagnostic Text 2 (Has become a Mid-Text- was Low on Diagnostic 1) - Low French Educated
Raters' Percentage Holistic Scores 69 65

1 During the troubled years that we're living, It is obvious that problems are going to arise between us and the surrounding including the family.

2 Humans are characterized by their selfishness, for it is know to almost every body that humans look for their hapiness and safty of mind. 3 This the cause of many serious problems including problems between parents and teenagers. 4 Teenagers are selfish in a way for they try to enjoy every minute of their life neglecting its result of their surrounding. 5 By doing this they hurt others. 6 Parents are nearly the most hurt. 7 When teenagers go out they do not care at what time they would come back or with whom they are going but parents for their care like to know all this. 8 Sometimes parents get selfish and they for their relaxing they put certain rules such as the time for coming back, and for the friends. 9 Here if parents get to greedy in their demands neglecting their childrens conditions problems start to pop up. 10 Other reasons for the problems are the choosing of friends. 11 Parents are often intrested in finding out the character of their children's friends. 12 They would be so dissapointed if they found out that their children are frequenting nasty guys of nasty habits such as smoking, drinking and driving maniacs. 13 Here parents would surely react quickly by advising their children to break out with such friends. 14 If the children are attached with their friends and refuse to leave them problems would rise between the parents and their children.

15 Another reason for the disagreement between the teenagers and their parents is that parents do not respect their children's choices. 16 For if a teenagers refuses to continue schooling and preffers work, Parents directly start bugging their son trying to advise him to go back to school or university. 17 Although they are doing this for his benifit they keep on repeating the same story on and on till problems arise.

18 As a conclusions we can say that parents in all these cases act for the best of their children. 19 We all know that life styles differs between ages for what parents find wrong or absurd a teenager of our days might find it ordinary. 20 So if teenagers and their parents discuss such problems with their parents in a calm and relaxed way no imp problems would rise.

Student 3
Text 5 - Whole Text - Diagnostic 1 - High English Educated Raters' Percentage Holistic Scores 80 80

(1) Parents and children, especially teenagers, have problems we always hear about, problems if not all mostly have. (2) Such problems or precisely disagreements are as if habit that parents in the whole world have with their teenage children. (3) Teenagers are the major problem here. (4) Their likes and dislikes never agree with their parents' likes and dislikes. (5) Teenagers see that whatever their parents do is against their happiness and only to tease them and keep them angry. (6) Unfortunately, this habit of disagreement is always accompanied by its effects, which sometimes causes multi of problems for the whole family. (7) This is what we can call a disaster. (8) But what may be the reasons of such disagreements and what are their effects?

(9) Parents and teenagers or children differ all among the world. (10) Several things make them differ but the major ones are tradition and finance or money. (11) The different parents and teenagers have different disagreements and of course different reasons for these disagreements. (12) For example, the Lebanese have different disagreements than that of the Americans, why is that? (13) Because our oriental traditions differ from theirs or the American traditions. (14) We are oriental, we live in the Middle east, and we are Arabs. (15) Sometimes our tradition is a little bit tough and sometimes it is unbearable, but still we have to face it and live according to it. (16) Such a tradition causes a major reaon for disagreement between parents and teenagers, but why is that? (17) Simply because our teenagers want to live life as they say, and as they see in American movies. (18) They want to go out, have fun, spend most of the time at their friends' house and never study. (19) They want to go dancing, swimming and doing everything , they simply want to go on irresponsibility. (20) Such things cause the disagreement between the parents and the teenagers. (21) The parents are working and refusing for their children's benefit, but unfortunately these children think that their parents are happy to see them sad and miserable. (22) Another major problem that is considered as a reason for disagreement between parents and teenagers is money. (23) Teenagers want money and lots of it to show off, and to spend mostly on friends and silly things. (24) Some parents are not able to provide this money for their children and others who are capable refuse to give in order not to spend it only silly things and nothing considerable and others just give them as much money as they want. (25) And here troubles start. (26) Disagreements start on the reason that the parents refuse to give the money to the children and the reason the children want the money for.

(27) Such disagreements always have effects on the whole family, and unfortunately, these effects are bad. (28) Some families are ruined and destroyed because of these effects, and some families are scattered. (29) And sometimes, families live under the same roof but each lives for himself or herself and not for the sake of others too. (30) Of course such effects on families also affect the whole society with time, and after that no body knows what will happen. (31) But also these disagreements may effect only one of the two groups, either the parents themselves or the teenagers. (32) The parents are affected because troubles may grow between the mother and the father, and I say this is a disaster. (33) As for the teenagers, they may be sad all the time or sometimes depressed.

(34) It is true that there are lots of problems and disagreements between parents and children, teenagers in particular, but it is not true that the effects are always bad. (35) Parents all among the world prefer what is best for their children, and if they refuse or disagree that is for the sake of their children and mostly to avoid major problems and troubles that cannot be faced or solved in the future.

Student 3
Text 6 - Diagnostic 2 (Remained High) English Educated
Raters' Percentage Holistic Scores 83 70

"Children are the Victims of Disagreements"

(1) What might be the reasons for disagreements between parents and teenagers? (2) Actually, these would not be total disagreements but rather misunderstanding. (3) All over the world, parents would have at a certin time to face this struggle with their children. (4) However, these disagreement would differ among the different countries and societies. (5) As the reasons for these disagreements, like tradition and family gaps, would vary, there would exist many effects where the children would usually be the victims.

(6) Among the hundreds reasons for disagreements, tradition would be one of the most important one. (7) Each country has its own tradition; moreover, traditions would differ with societies. (8) For example, our society follows an oriental tradition that does not agree with other foreign traditions. (9) Unfortunately, our teenagers might compare it with American and European traditions, and they might realize that ours is a miserable and old fashioned one. (10) However, the parents might not think of it the same way. (11) Also, these parents might not be influenced by the traditions of other societies, and no matter what happens, the whole family should follow our tradition. (12) So, the teenagers want a way of living like that of the American and European teenagers. (13) In other words, our teenagers want to live a life that their parents consider it to be very much exceeding the limits of the principles of our tradition. (14) Unfortunately, the struggle between the parents and the children might start, and their disagreements vary. (15) For such a disagreement, there might exist positive and negative effects. (16) When the effects are positive, the parents and the children might happily agree. (17) But, the badness sticks in the negative effects. (18) For example, this disagreement might lead the teenagers to run away and never come back. (19) Unprovidentially, no one might know the effects of this run away.

(20) Besides the important of the tradition as a reason, there exists a more important reason for disagreement, and that is family gaps. (21) Family gaps might start with the disagreeing parents. (22) These gaps might be transported to the children; in such cases, each one of the family would be living his life alone. (23) There would be no sharing of love and care; there would be no sharing of likes and dislikes. (24) Mostly, there would be no understanding among members of the family. (25) Each one would have to face his struggles alone with no one beside him. (26) However, these gaps would cause total disagreement between the parents and their children. (27) In this case, the effects are usually negative. (28) These disagreements might cause running away, becoming drug addicts, or becoming thieves and murderers. (29) Unfortunately, this is the children's destiny.

(30) The reasons for disagreements between parents and children are multi, but usually there would be the effects that would make the children the only victims. (31) All teenagers would not realize that most of these disagreements are for their sake. (32) Most would think that their parents exist to make them suffer and become miserable. (33) Fortunately, when they become parents, they would realize the valuability of such disagreements.

Student 4

**Text 7 - Diagnostic 1 - Full Text - High French Educated
Raters' Percentage Holistic Scores 88 85**

(1) A long time ago, the relationships among the family members were successful without any serious problems. (2) However, since the middle of our century until now, the behaviour between parents and teenagers has changed a lot because of many reasons. (3) That's why, their relationships are more and more complex with too many conflicts. (4) But, what are these reasons for disagreements between them and what are the effects of these disagreements on the family?

(5) In fact, the disagreements between adults and teenagers are nowadays, more important in quantity than ever; because of many reasons such as the education. (6) In reality, the education is now, different in our school; we have many varieties in studying such as sociology, basic health, politics and some sports activities. (7) This way of education makes teenagers to think more of their life. (8) Also, media are an instructor which can learn them a lot about everything. (9) So, parents who had had a different education from their children, should be in disagreement with them.

(10) Moreover, the teenagers who are influenced by music, narrow-fashioned, seem to be open minded. (11) That's why, they ask for their independance and freedom. (12) As teenager's believes have changed, they want to behave in a better way which is more modern. (13) Furthermore, children don't need anymore their parents to tell them what to do and how to do. (14) They prefer now to act by themselves, to have responsabilities and to be consider like adults.

(15) However, these teenagers' behaviour are causing many effects on the family. (16) In fact, as parents have another idea of believes, the dialogue between adults and children doesn't exist anymore in many families. (17) That's why, we can assist at some conflicts and problem on the family such as separation, suicide, revolution. (18) In reality, for instance, a girl who is in love with a boy and would like to marry him but her parents wouldn't because of interests reasons; might try to kill herself or to go away outside home. (19) Furthermore, some teenagers' take refuge in drugs or alcohool in order to forget their family problems. (20) So, parents can't control their children anymore.

(21) Consequently, as we saw, there are a lot of reasons for disagreements between parents and teenagers; because of the developpment of our society. (22) And the effects of the disagreements on the family are bigger and dangerous sometimes. (23) That's why, parents must listen carefully to their children and they should adapt themselves to the teenagers' behaviours.

Student 4

Text 8 - Diagnostic 2 - Whole Text - (Has remained high on Diagnostic 2) French Educated
Raters' Percentage Holistic Score 75 77

Family's relationships

(1) The family's prosperity depends on the relationshps between parents and teenagers. (2) However, because of their dissimilar opinions and believes, parents and children seem to be in conflict most of the time. (3) In fact, disagreements between them are increasing more and more for many reasons such as the school's education, the media's influence or else. (4) Thus, these reasons have some effects on the family which can be threatened a lot.

(5) First of all, the major reason for disagreements between parents and teenagers is the school's education which differs from our parents'. (6) In fact, nowadays, as colleges and universities present to their students different activities and courses, teenagers are becoming more education and open-minded. (7) The school's studies are no more limited because a student is now able to have general knowledge such as basic health, music,...

(8) Moreover, media is a cause for conflict between the family's member. (9) Thus, television which is a mass medium is showing and learning teenagers to go against the stereotypes and traditions. (10) In fact, several people, precisely children are influenced by television and its programs. (11) Also, music can be a reason for disagreements because of its words which are very power such as hard music.

(12) As a result those reasons are affecting the relationships between parents and children. (13) Thus, teenagers as they are more ambitious, are behaving in a way in order to have their own independance and opinions. (14) They are not listening to their parents anymore; that's why, they disagree. (15) In fact, many teenagers in order to have their liberty, leave their own family and get married. (16) Also, a child who is in conflict with his parents can suicide or in contrary kill his parents; that's how a family is destroyed.

(17) In conclusion, as we have noticed, the reasons for disagreements between parents and teenagers are evident and many. (18) Thus, the effects are very important and sometimes dangerous. (19) That's why, parents and children should communicate in order to respect each particular opinion or idea not to end the family's prosperity and friendship.

Rating the Coherence of the Sub-Texts

The following is a sample text, (Text 1), by student 1 given to the raters' to evaluate as indicated. The following text includes the procedure in forming the sub-texts from omitting the marginal sentences, including the central sentences, identifying topic opening and closing sentences and making sub-texts with the sentences with the topic opening and closing sentences. The texts given to the raters to evaluate are numbered as sub-texts with the directions for the raters following. The same was done for the D2 text and the other seven texts mentioned above in this appendix. The results are given in Chapter Ten.

Student 1 - Text1 - Diagnostic 1 - Low English Educated

the teenagers problem.

Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. As a result. we have many reason for disagreements. But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. For that we have many reasons for disagreements between Parents and teenagers and these reasons are. First of all, the teenagers fell himself an adulte, he want to do whatever comes into his mind, he want to out after midnight whenever he want, having fun with whoever he want also. Second the school has a big importance in our life and in our way of doing things. Also our environement has a big importance on us. Parents will never accept these things because they still exist in our life and we have to do whatever they want. The disagreement cause a lot of problem between the family and has a big effect. First, the disagreement has a big effect on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. Second, he may leave the home and make his own life alone like in the United states of America. When the boy have 18 years old or before he leave the house and never come back to his parents. he do whatever he like.

In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects. our world face these big and dangerous problem because it has many effects in teenagers life. In my opinion we should work to solve this problems in anyway.

1. **How well are the ideas organized coherently in the text?**

   Grade   A   B   C   D   F   Percentage _____ %

2. **Comments**

(This is a sample whole text that was given to the raters to evaluate with directions indicated)

Diagnostic 1 - Low - English Educated
Omitting Marginal Sentences - Sub-text 1 (3links = 1 bond)

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) (3)

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. (5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. (6) (7) (8) (9) (10) (11) (12) (13) (14)

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects. (16) (17)

Sentences (omitting the marginal sentences) 1 4 5 15   4/17

Marginal Sentences   2 3 6 7 8 9 10 11 12 13 14 16 17 13/17

(1) (2) As a result we have many reason for disagreements. (3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

(4) (5) (6) First of all, the teenagers feel himself an adult, he want to do whatever comes into his mind, he want to out after midnight whenever he want, having fun with whoever he want also. (7) Second the school has a big importance in our life and in our way of doing things. (8) Also our environement has a big importance on us. (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want. (10) The disagreement cause a lot of problem between the family and has a big effect. (11) First, the disagreement has a big effect on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. (12) Second, he may leave the home and make his own life alone like in the United states of America. (13) When the boy have 18 years old or before he leave the house and never come back to his parents. (14) he do whatever he like.

(15) (16) our world face these big and dangerous problem because it has many effects in teenagers life. (17) In my opinion we should work to solve this problems in anyway.

Sub-Text 1 - Omitting the Marginal Sentences (3links equal 1 bond)

the teenagers problem

Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that.

The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. For that we have many reasons for disagreements between Parents and teenagers and these reasons are.

In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects.

1. How well are the ideas organized coherently in the text?

Grade A B C D F   Percentage ___ %

2. Comments

(This is a sample of the way the texts were given to the raters to evaluate and the directions included for 1) omitting the marginal sentences and 2) including the central sentences)

Student 1 - Low - English Educated
Omitting Marginal Sentences - Sub-Text 2 (2links = 1 bond)

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) As a result, we have many reason for disagreements. (3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. (5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. (6) (7) (8) (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want. (10) The disagreement cause a lot of problem between the family and has a big effect. (11) First, the disagreement has a big effect on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. (12) (13) (14)

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects. (16) our world face these big and dangerous problem because it has many effects in teenagers life. (17)

Sentences (Omitting marginal sentences)	1 2 3 4 5 9 10 11 15 16	**10/17**
Marginal sentences	6 7 8 12 13 14 17	**7/17**

(1) (2) (3)

(4) (5) (6) First of all, the teenagers feel himself an adult, he want to do whatever comes into his mind, he want to out after midnight whenever he want, having fun with whoever he want also. (7) Second the school has a big importance in our life and in our way of doing things. (8) Also our environement has a big importance on us. (12) Second, he may leave the home and make his own life alone like in the United states of America. (13) When the boy have 18 years old or before he leave the house and never come back to his parents. (14) he do whatever he like.

(15) (16) (17) In my opinion we should work to solve this problems in anyway.

Student 1- Diagnostic 1 - Low - English Educated
Including Central Sentences with 2 bonds and above
Sub-Text 3 (3 links equal 1 bond)

Central Sentences	**0/17**
Non Central Sentences	**17/17**

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) As a result, we have many reason for disagreements. (3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. (5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. (6) First of all, the teenagers fell himself an adulte, he want to do whatever comes into his mind, he want to out after midnight whenever he want, having fun with whoever he want also. (7) Second the school has a big importance in our life and in our way of doing things. (8) Also our environement has a big importance on us. (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want. (10) The disagreement cause a lot of problem between the family and has a big effect. (11) First, the disagreement has a big effect on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. (12) Second, he may leave the home and make his own life alone like in the United states of America. (13) When the boy have 18 years old or before he leave the house and never come back to his parents. (14) he do whatever he like.

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects. (16) our world face these big and dangerous problem because it has many effects in teenagers life. (17) In my opinion we should work to solve this problems in anyway.

Student 1 - Diagnostic 1 - Low - English Educated
Including Central Sentences with 2 bonds and above
Sub-Text 4 (2 links equal 1 bond)

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) As a result. we have many reason for disagreements. (3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

(4) (5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. (6) (7) (8) (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want. (10) The disagreement cause a lot of problem between the family and has a big effect. (11) (12) (13) (14)

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects. (16) (17)

Central Sentences	1 2 3 5 9 10 15	7/17
Non Central Sentences	4 6 7 8 11 12 13 14	8/17

(1) (2) (3)

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. (5) (6) First of all, the teenagers fell himself an adulte, he want to do whatever comes into his mind, he want to out after midnight whenever he want, having fun with whoever he want also. (7) Second the school has a big importance in our life and in our way of doing things. (8) Also our environement has a big importance on us. (9) (10) (11) First, the disagreement has a big effect on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. (12) Second, he may leave the home and make his own life alone like in the United states of America. (13) When the boy have 18 years old or before he leave the house and never come back to his parents. (14) he do whatever he like.

(15) (16)) our world face these big and dangerous problem because it has many effects in teenagers life. (17) In my opinion we should work to solve this problems in anyway.

Student 1 - Low - English Educated

Topic Opening Sentences - 3 links = 1 bond
(Selecting the two sentences that have the highest number of bonds with consecutive sentences)
The three sentences that had 1 bond each were S 1 (1 bond with S 4), S 5 (1 bond with S 15) and S 10 (1 bond with S 11).

Sentence 1

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that.

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality.

Sentence 5

(5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are.

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects.

Topic Opening Sentences - 2 links = 1 bond
Three sentences have 3 bonds with consecutive sentences: S 1 (1 bond each with S 4, 5, 9); S 2 (1 bond each with S 3, 5, 15) and S 5 (1 bond each with S 9, 11, 15)

Sentence 1

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that.

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. (5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want.

Sentence 2

(3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

(4) (5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are.

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects.

Sentence 5

(5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. (9) Parents will never accept these things because they still exist in our life and we have to do whatever they want. (10) (11) First, the disagreement has a big effect on the teenager's personality, on his action, he becomes, to do bad things like stoling or kiling or robing. (12) (13) (14)

(15) In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects.

Student 1 - Text 1 - Topic Opening Sentences

Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that.

The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality.

1. How well does the first sentence function as the topic introducer (topic sentence) of the
 brief text?

 Grade   A   B   C   D   F   Percentage ____ %

2. How well are the ideas organized coherently in the text?

 Grade   A   B   C   D   F   Percentage ____ %

3. Comments

(This is a sample of a text that was given to the raters to evaluate for topic opening sentences and the sub-texts formed and the directions included)

Student 1 - Low - English Educated

Topic Closing Sentences - 3 links = 1 bond
(Selecting the two sentences that have the highest number of bonds with previous sentences) S 4 had 1 bond with S 1 and S 15 had one bond with S 5

Sentence 4

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that.
(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality.

Sentence 15

(5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are
(15) In conclusion, although of the reasons for desagreement like environement or the way of living, or having the feel to be adult and their effects.

Topic Closing Sentences - 2 links = 1 bond
(Selecting the two sentences that have the highest number of bonds with previous sentences) S 5 has 3 bonds with S 1, 2 and 3 and S 15 has 3 bonds with S 2, 5, and 10

Sentence 5

(1) Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that. (2) As a result. we have many reason for disagreements. (3) But the question is what are those reasons for disagreements? and the effects of these disagreements on the family.

(4) The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality. **(5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are.**

Sentence 15

(2) As a result. we have many reason for disagreements.

(5) For that we have many reasons for disagreements between Parents and teenagers and these reasons are. **(10) The disagreement cause a lot of problem between the family and has a big effect.**

Student 1 - Text 1 - Topic Closing Sentence

Since, the creature up till now, All children will attend a certain age to become teenagers, but this period of life will going to be a difficult period and parents will never accept that.

The period of teenagers is one of the most difficult period in our life, because we have many changes in our cycle of life and in our personality.

1. **How well does the last sentence function as the topic closer (concluding sentence) to the brief text?**

   Grade A B C D F   Percentage _____%

2. **How well are the ideas organized coherently in the text?**

   Grade A B C D F   Percentage _____ %

3. **Comments**

(This is a sample of the topic closing sentence and the sub-text formed that was given to the raters to evaluate and the directions included)

Another sample:

For that we have many reasons for disagreements between Parents and teenagers and these reasons are

In conclusion, although of the reasons for disagreement like environement or the way of living, or having the feel to be adult and their effects.

APPENDIX L

REPETITION MATRIX

Textual Link Types

CP1	complex paraphrase type 1
CP2	complex paraphrase type 2
CP3	complex paraphrase type 3
SPP	simple partial paraphrase
SMP1	simple mutual paraphrase type 1
SMP2	simple mutual paraphrase type 2
CR1	complex repetition type 1
CR2	complex repetition type 2
CR3	complex repetition type 3
SR	simple repetition
COR	Co-Reference

Grammatical Link Types

D	Deixis
S	Substitution

Composition Number: 121
Score: 48%

* not picked up in the initial analysis

The matrix (read with row labels I, 2, 3, B1, 4, 5, 6, 7, 8, 9, 10 and column labels 1–9):

	1	2	3	4	5	6	7	8	9
I									
2									
3	sr reason / reasons / sr: ds-ds								
B1	(sr: dif-dif) * / sr: per-per / sr: life-life / sr: ts-ts	sr reason / reasons / sr: ds-ds	sr reasons-reasons / sr: ds-ds						
4	sr: ts-ts		sr: Sentence-Sentence / 4-that						
5	sr: ps-ps			sr: life-life	sr: ts-ts				
6	sr: ts-ts								
7	sr: life-life						sr: imp-imp (s)		
8									
9	sr: ps-ps / sr: life-life	sr: ds-d	sr: ds-d / sr: f-f		sr: ps-ps / sr: ts-we		sr: life-life / sr: Sent.s-these		
10					sr: ds-ds				

Abbreviations

I	Introductory paragraph
B1	Body paragraph 1, etc.
C	Concluding paragraph
t(s)	teenager(s)
p(s)	parent(s)
d(s)	disagreement(s)
f	family
imp(o)	important (ance)
dif	difficult
per	period

Composition I D I 48%

	10	11	12	13	14	15	16
11	sc: d-d sc: big-big sc: effect-effect	si: t-he					
12			sc: leave-leave				
13				si: boy-he			
14							
C 15	sc: d-d sc: effect-effects		cn: life-living		sc: effect-effects		
16	sc: pc-pc sc: effect-effects		sc: life-like				sc: pr-ps
17	sc: pr-prs						

Abbreviation: pr(s) problem(s)

APPENDIX I.

REPETITION MATRIX

Textual Link Types

CP1	complex paraphrase type 1
CP2	complex paraphrase type 2
CP3	complex paraphrase type 3
SPP	simple partial paraphrase
SMP1	simple mutual paraphrase type 1
SMP2	simple mutual paraphrase type 2
CR1	complex repetition type 1
CR2	complex repetition type 2
CR3	complex repetition type 3
SR	simple repetition
COR	Co-Reference

Grammatical Link Types

D	Deixis
S	Substitution

Composition Number: 1 D2
Score: 59%

Repetition matrix (lower-triangular grid; row labels 1–10 at left, column labels along the diagonal):

	2	3	4	5	6	7	8	9
1 d: Sentence - that								
2	Sr: effect-effects							
3	Sr: ts-ts							
4 (&1) Sr: pr-ps	S: t(s)-his		S: t-his					
5			S: t-his / Sr: life-life	Sc: ps-ps				
6 Sr: pr-ps			Sr: chn-chn		Sc: ps-ps			
7						d: Sentence 6-that		
8	SA: ts-ts		Sc: ts-ts / Sr: life-life				S: chn-he	
9	S: t(s)-he		S: t(s) he				S: t(s)-he	Sc: friend-friend
10	S: t(s)-he		Sc: ts-t					S: t(s)-he

Abbreviations:

t(s)	teenager(s)
p(s)	parent(s)
chn	children
pr(s)	problem(s)
f	family
eff(s)	effect(s)
dis	disagree
d(s)	disagreement(s)

	1	2	3	4	5	6	7	8	9
11		sr: ps-ps	sr: reason reason	sr: ts-ts		sr: ps-ps	sr: ps-ps	sr: ts-ts	
12			sr: reason reason	sr: ts-ts				sr: ts-ts	
B2 13		sr: ds-ds sr: efts-efts sr whole-whole sr f-f	sr: efts-efts				cr1 dis-ds		
14		sr: ts-ts sr: ps-ps		sr ts-ts		sr: ps-ps		sr ts-ts	
15		sr: ts-ts		sr ts-ts sr life-life				sr ts-ts sr life-life	
16		sr: ds-d	sr: efts-efts	cr2: ts-ts'	sr: ps-ps	sr: ps-ps	cr1 dis-d	cr2: ts-ts'	
C 17		sr: ps-ps sr: ds-d sr eff-eff sr f-f	sr: reasons reasons sr: efts-efts	cr2 ts-ts'		sr: ps-ps	sr: ps-ps cr1 dis-d		
18		sr: ps-ps				sr: ps-ps	sr: ps-ps sr chn-chn		

Composition Number: C1 D2
Score : 59%

	10	11	12	13	14	15	16	17
11		sc: reusen· reusen sc: ts-ts						
12			sc: ts-ts sc: ps-ps	sc: ts-ts				
62/13								
13			sc: ts-ts	sc: f-f	sc: ts-ts			
14			cc2: ts-ts	sc: ds-d	cc2: ts-ts	sc: ts-ts		
15			cc2: ts-ts sc: reusen- reusen	cc2: f-f	cc2: ts-ts ss: ps-ps	cc2: ts-ts ss: f-f	sc: d-d ss: ts-ts	
16			sc: ps-ps		sc: ps-ps			
C 17			sc: ps-ps					sc: ps-ps
18								

Composition 1 D2
Score 59%

Composition Number: 1 D1
Score
English Low Text : 48%

Number of repetitions between sentences

A comparison of the closeness of
connection between sentences.

P paragraph type
    I introductory paragraph
    B1 body paragraph number 1
       etc.
    C concluding paragraph

P		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	2	0																
I	3	0	2															
B1	4	3	0	0														
	5	2	2	2	1													
	6	1	0	0	0	1												
	7	1	0	0	1	0	0											
	8	0	0	0	0	0	0	1										
	9	2	0	0	0	2	0	1	1									
	10	0	1	2	0	1	0	0	0	0								
	11	1	1	1	0	2	1	0	0	0	3							
	12	1	0	0	0	1	1	1	0	1	0	1						
	13	1	0	0	0	1	0	0	0	1	0	0	1					
	14	0	0	0	0	1	1	0	0	0	0	0	0	1				
C	15	1	2	1	0	3	0	1	1	0	2	0	1	0	0			
	16	1	0	0	0	1	1	1	0	0	2	0	1	0	0	1		
	17	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	
	18																	
	19																	
	20																	
	21																	
	22																	
	23																	
	24																	
	25																	
	26																	
	27																	
	28																	
	29																	
	30																	
	31																	
	32																	
	33																	
	34																	
	35																	

Composition Number: I D2
Score : 59%

APPENDIX M

CELL MATRIX

Number of repetitions between sentences

A comparison of the closeness of
connection between sentences.

P paragraph type
  I introductory paragraph
  B1 body paragraph number 1
     etc.
  C concluding paragraph

P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2	I
3	C	I
4	I	I	C
5	O	I	C	I
6	I	C	O	2	I
7	C	O	O	I	C	I
8	O	I	O	2	C	C	I
9	O	I	O	I	C	O	I	I
10	O	I	C	I	C	O	O	I	I
11	O	I	I	I	C	I	I	I	O	O
12	O	O	I	I	C	C	C	I	C	O	2
13	C	4	I	O	C	O	I	O	O	O	O	O
14	O	2	O	I	C	I	O	I	O	O	2	I	O
15	O	I	C	2	C	C	C	2	O	O	I	I	I	I
16	C	I	I	I	I	I	I	I	O	O	I	I	I	I	I
17	C	4	2	I	C	I	2	O	O	O	3	I	I	2	2	2
18	C	I	O	O	O	I	2	O	O	O	I	C	O	I	C	O	I
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35

Composition Number: 4 D2
Score : 67%
French Low Text - became Mid

APPENDIX M

CELL MATRIX

Number of repetitions between sentences

A comparison of the closeness of
connection between sentences.

P paragraph type
   I introductory paragraph
   B1 body paragraph number 1
     etc.
   C concluding paragraph

P 6l2

#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	C
3	I	I
4	2	1	1
5	C	C	i	2
6	C	C	1	C	I
7	C	C	2	1	C	I
8	C	C	1	C	C	1	I
9	I	C	2	C	C	1	1	I
10	I	C	I	C	C	C	C	1	I
11	C	C	1	C	C	1	1	2	2	i
12	C	C	1	C	C	1	1	1	1	C	2
13	C	C	1	C	C	1	1	2	2	1	3	1
14	I	C	2	C	C	1	1	2	3	1	2	3	4
15	C	C	2	1	C	1	2	1	2	C	2	1	2	3
16	C	C	2	1	C	1	2	1	1	C	1	C	1	1	2
17	I	C	2	C	C	C	1	1	3	1	1	2	1	3	1	2
18	C	C	1	C	C	1	1	1	2	C	2	1	2	2	1	1	C
19	C	C	2	1	C	1	2	1	1	C	2	C	1	1	2	1	C	1
20	I	C	3	1	C	1	2	1	3	I	2	C	1	3	3	2	C	1	2
21																				
22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
32																				
33																				
34																				
35																				

62 15

C 18

Composition Number: 6 D2
Score : 76.5%
English High Text

APPENDIX M

CELL MATRIX

Number of repetitions between sentences

A comparison of the closeness of
connection between sentences.

P paragraph type
  I introductory paragraph
  B1 body paragraph number 1
    etc.
  C concluding paragraph

P	2	1	2																															
I	3	1	0	3																														
	4	1	1	0	4																													
	5	2	1	1	1	5																												
B1	6	2	1	0	1	3	6																											
	7	0	0	0	1	1	1	7																										
	8	0	0	0	2	1	2	2	8																									
	9	1	0	0	0	1	1	1	1	9																								
	10	1	0	1	0	0	1	1	1	C	10																							
	11	1	0	1	1	1	0	2	2	0	1	11																						
	12	1	0	0	0	0	0	0	0	3	0	0	12																					
	13	2	0	0	0	1	1	1	2	0	2	1	13																					
	14	2	1	1	1	1	1	1	0	0	0	1	0	1	14																			
	15	1	1	0	1	1	1	0	0	0	0	0	0	0	1	15																		
	16	2	1	2	0	0	1	0	0	0	1	1	0	1	3	2	16																	
	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	17																
	18	2	1	0	1	1	1	0	0	1	0	0	1	1	1	1	0	1	18															
	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19														
B2	20	1	1	0	1	4	2	1	1	1	0	1	0	1	1	0	1	0	1	0	20													
	21	2	1	1	1	2	1	0	0	0	1	1	0	1	2	1	2	0	1	0	3	21												
	22	0	0	1	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	22											
	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23										
	24	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	24										
	25	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25									
	26	2	1	2	1	2	0	0	0	0	0	1	0	1	2	1	1	0	1	0	2	1	1	0	0	0	26							
	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	1	27					
	28	1	1	0	1	0	1	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	1	0	28			
	29	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	29			
C	30	2	1	2	1	2	1	0	0	0	1	1	0	1	3	1	3	0	2	0	1	1	0	0	0	3	1	1	1	30		
	31	2	1	0	1	3	0	0	0	0	0	1	1	1	1	1	0	2	0	0	1	0	0	0	0	1	0	1	0	2	31	
	32	1	0	1	0	1	0	0	0	0	1	1	0	1	1	0	1	0	0	0	1	1	0	0	0	2	0	1	0	1	0	32
	33	2	1	1	1	1	1	0	0	0	1	1	0	1	2	1	2	0	1	0	1	2	0	0	0	2	0	0	2	1	1	33
	34																															34
	35																															35

APPENDIX N

BOND MATRICES FOR STUDENT ESSAYS

Four matrices are given below for Student 1, Texts 1-2 (Appendix K)

1. **Student 1 - Text 1-D1- Low English Educated (3 links equal 1 bond)**
   (see Chapter Seven, Section III.D.2 for bond matrix and Appendix K for student text)
2. **Student 1 - Text 1-D2 - Low English Educated (2 links equal 1 bond)**

Table N.1 Bond Matrix When Two Links Equal One Bond for Text 1, D1

P	S1	NBP	NBC	%BP	%BC	S2
I	1	-	3	-	23.08	4,5,9
	2	0	3		23.08	3,5,15
	3	1	2	7.69	15.38	5,10
B1	4	1	0	7.69		
	5	3	3	25.08	23.08	9,11,15
	6	0	0			
	7	0	0			
	8	0	0			
	9	2	0	15.38		
	10	1	2	7.69	15.38	15,16
	11	1	0	7.69		
	12	0	0			
	13	0	0			
	14	0	0			
C	15	3	0	23.08		
	16	1	0	7.69		
	17	0	0			
		13	13			

P = *Paragraph Type* *I* = *Introductory*
B1 = *Body paragraph 1 etc.*
C = *Concluding*
S1 = *Sentence number in the text*
NBP = *Frequency of bonds the sentence has with previous sentences*
NBC = *Frequency of bonds the sentence has with consecutive sentences*
%BP = *Percent frequency of bonds the sentence has with previous sentences*
%BC = *Percent frequency of bonds the sentence has with consecutive sentences*
S2 = *The number of the consecutive sentence that is bonded to the corresponding S1 number*

3. Student 1 - Text 1-D2 - Low English Educated (3 links equal 1 bond)

Table N.2 Bond Matrix When Three Links Equal One Bond for Text 1, D2

P	S1	NBP	NBC	%BP	%BC	S2
I	1	-	0	-		
	2	0	2		66.67	13,17
	3	0	0			
B1	4	0	0			
	5	0	0			
	6	0	0			
	7	0	0			
	8	0	0			
	9	0	0			
	10	0	0			
	11	0	1		33.33	17
	12	0	0			
B2	13	1	0	33.33		
	14	0	0			
	15	0	0			
	16	0	0			
C	17	2	0	66.67		
	18	0	0			
		3	3			

P   = Paragraph Type I = Introductory
                        B1 = Body paragraph 1 etc.
                        C = Concluding

S1   = Sentence number in the text
NBP = Frequency of bonds the sentence has with previous
             sentences
NBC = Frequency of bonds the sentence has with consecutive
             sentences
%BP = Percent frequency of bonds the sentence has with
             previous sentences
%BC = Percent frequency of bonds the sentence has with
             consecutive sentences
S2   = The number of the consecutive sentence that is
             bonded to the corresponding S1 number

4. Student 1 - Text 1-D2 - Low English Educated (2 links equal 1 bond)

Table N.3 Bond Matrix When Two Links Equal One Bond for Text 1, D2

P	S1	NBP	NBC	%BP	%BC	S2
I	1	-	0	-		
	2	0	4		25.00	13,13,17,17
	3	0	0			
	4	0	3		18.75	6,8,14
	5	0	0			
	6	1	0	6.25		
	7	0	2		12.5	17,18
	8	1	1	6.25	6.25	15
	9	0	0			
	10	0	0			
B1	11	0	3		18.75	12,14,17
	12	1	0	6.25		
	13	2	0	12.5		
	14	2	1	12.5	6.25	17
C	15	1	1	6.25	6.25	17
	16	0	1		6.25	17
	17	7	0	43.75		
	18	1	0	6.25		
		16	16			

P = *Paragraph Type I = Introductory*
                B1 = Body paragraph 1 etc.
                C = Concluding
S1 = *Sentence number in the text*
NBP = *Frequency of bonds the sentence has with previous sentences*
NBC = *Frequency of bonds the sentence has with consecutive sentences*
%BP = *Percent frequency of bonds the sentence has with previous sentences*
%BC = *Percent frequency of bonds the sentence has with consecutive sentences*
S2 = *The number of the consecutive sentence that is bonded to the corresponding S1 number*

APPENDIX O

LINKS AND BONDS

Appendix O presents:

1) tables indicating the percent frequency of cells with corresponding number of links in D1 and D2 texts by level

2) tables indicating the percent frequency of bonded and unbonded sentences in D1 and D2 texts by level and study language at the same level and

3) tables indicating bonding between types of paragraphs by level and study language at the same level

I. Percent Frequency of Links in Cells in Texts

The results in Table O.1 indicate that approximately 44-53% of the cells (connection between sentences) in both D1 and D2 in all text levels had no links with other cells (sentences), approximately 30-35% had one link, 10-17% had two links, 1-5% had three, and the remaining percentage of cells (very minimal) had between 4 and 6 links; only in the LT in D1 did it reach to 11 links, but the mean percent frequency was very minimal (.02%).

If the results are compared to Hoey's figures (1991a, p.91), it can be easily seen that whereas in his calculations, the Political Text had approximately 30% of the cells with two links and above, these students' texts have 1-5% with three links even with the great amount of simple repetition in the texts. It would seem that the EFL texts in the Freshman class as indicated in the results have approximately 30% of the cells with one link, a very low number to really consider as the cut off point. However, since these students are studying English as a Foreign Language, it can be argued that all the texts are products of ' basic writers'.

The results in Table O.3 indicate that there were no significant differences in both D1 and D2 texts by level in the frequency of links in cells except for a slight significant difference between HT and LT in D2 texts when two (p=.048) and five (p=.04) links per cell were considered with the LT having the higher percent frequency.

The results in Table O.2 indicate that in D1 and D2 texts approximately 42-61% of cells had no links with other cells (sentences) with the ET having the higher percentage in all cases; approximately 29-38% of cells had one link with the FT having the higher percentage in all cases except in D2 LT where the ET had a higher percentage; approximately 7-20% had two links with the FT having the higher percentage in all cases except for a slight difference in D1 HT where the FT had .20 higher percentage; approximately 1-6% had three links with the FT having the higher percentage in all cases; and the remaining percentage of cells (very minimal) had between 4 and 11 links with the FT having the higher percentages. Results in Table O.4 indicate there were no significant differences between HT and LT by study language at the same level in both D1 and D2 texts.

Table 0.1 **Percent Frequency of Cells with Corresponding Number of**
         Links between Sentences in D1 and D2 by Level

By Level	Diagnostic 1		Diagnostic 2	
Number of Links	Mean+	St.Dev.	Mean+	St.Dev.
HT				
0	50.46	15.91	53.92	12.85
1	32.38	5.91	30.98	6.70
2	12.12	7.11	10.73	5.35
3	4.00	4.50	2.52	1.62

4	.88	1.12	.39	.63
5	.06	.15	.00	.00
6	.04	.09	.01	.05
11	.00	.00	.00	.00
MT				
0			50.75	12.86
1			35.50	6.80
2			10.47	5.73
3			2.62	2.08
4			.57	.87
5			.09	.30
6			.00	.00
11			.00	.00
LT				
0	48.70	16.30	44.18	14.86
1	33.16	7.69	31.23	5.67
2	13.50	6.06	17.94	9.77
3	4.18	6.44	5.14	5.35
4	.49	.79	1.11	1.25
5	.12	.53	.39	.70
6	.04	.13	.00	.00
11	.02	.07	.00	.00

+ = Mean percent of cells with corresponding number
of links (calculated on the basis of total number of
cells in each text)

**Table 0.2 Percent Frequency of Cells with Corresponding Number
of Links in D1 D2 by Study Language at the Same Level**

	Diagnostic 1				Diagnostic 2			
	English Texts		French Texts		English Texts		French Texts	
	Mean	St.Dev	Mean	St.Dev	Mean	St.Dev	Mean	St.Dev
HT								
0	51.85	13.96	48.77	18.75	55.21	16.93	52.20	4.66
1	32.07	4.90	32.77	7.25	29.50	8.37	32.95	3.21
2	12.21	7.98	12.01	6.35	10.22	7.21	11.40	.77
3	3.01	2.39	5.21	6.16	2.36	1.51	2.73	1.89
4	.65	.98	1.17	1.26	.13	.25	.73	.84
5	.06	.15	.05	.14	.00	.00	.00	.00
6	.04	.09	.03	.10	.02	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00
MT								
0					61.10	4.77	45.58	12.58
1					30.33	4.22	38.08	6.47
2					7.09	4.80	12.17	5.60
3					1.40	1.08	3.24	2.23
4					.10	.21	.80	.98
5					.00	.00	.13	.36
6					.00	.00	.00	.00
11								
LT	58.30	17.75	45.49	15.06	50.00	9.25	42.00	16.47
0	30.54	11.01	34.03	6.51	35.73	4.45	29.55	5.53
1	9.62	6.10	14.79	5.66	11.17	5.53	20.48	10.06
2	1.28	1.07	5.15	7.20	2.66	1.74	6.07	6.04
3	.26	.59	.57	.85	.43	.75	1.37	1.34
4	.00	.00	.16	.61	.00	.00	.53	.79
5	.00	.00	.05	.15	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.02	.09	.00	.00	.00	.00

+ = Mean percent of cells with corresponding number
of links (calculated on the basis of total number of
cells in each text)

Table 0.3   **Significant Differences in Frequency of Links among**
Sentences in D1 and 2 Texts   By Level   Using the Mann
Whitney Statistical Test

	Diagnostic 1		Diagnostic 2	
By Level	**Z**	**2Tail P.**	**Z**	**2Tail P.**
HT with LT				
0	- .7574	.4488	-1.2591	.2080
1	- .6763	.4989	- .0547	.9563
2	- .9738	.3302	-1.9708	.0487*
3	- .8394	.4013	-1.3415	.1798
4	-1.4328	.1519	-1.1316	.2578
5	- .9611	.3365	-2.0360	.0418*
6	- .3296	.7417	- .8864	.3754
11	-1.0000	.3173		
HT with MT				
0			- .3055	.7600
1			-1.6368	.1017
2			.0000	1.0000
3			- .2182	.8272
4			- .3244	.7456
5			-1.3904	.1644
6			-1.0351	.3006
11				
MT with LT				
0			-1.3753	.1690
1			-1.4534	.1461
2			-2.2057	.0274
3			-1.1683	.2427
4			- .8198	.4124
5			-1.0182	.3086
6				
11				

Table 0.4   **Significant Differences in Percent Frequency of Links**
among Sentences in D1 and 2 Texts   by Study Language
Using the   Mann Whitney Statistical Test

	Diagnostic 1		Diagnostic 2	
	Z	**2 Tail P.**	**Z**	**2 Tail P.**
EHT with FHT				
0	- .2659	.7903	- .3873	.6985
1	- .1900	.8493	- .6455	.5186
2	- .1899	.8494	-1.5492	.1213
3	- .5698	.5688	- .2582	.7963
4	- .9243	.3553	-1.5165	.1294
5	- .4277	.6688		
6	- .3058	.7597	- .8660	.3865
11				
EMT with FMT				
0			-2.0821	.0373*
1			-1.9596	.0500*

2			-1.5922	.1113
3			-1.5323	.1254
4			-1.7446	.0811
5			-1.0351	.3006
6				
11				
ELT with FLT				
0	-1.1784	.2386	- .5698	.5688
1	- .4801	.6312	-1.7094	.0874
2	-1.5275	.1266	-1.2536	.2100
3	-1.1833	.2367	- .7977	.4250
4	- .8374	.4024	-1.2934	.1959
5	- .5774	.5637	-1.2619	.2070
6	- .8377	.4022		
11				

II. Percent Frequency of Bonded and Unbonded Sentences in Texts

Table O.5 indicates the percent frequency of bonded and unbonded sentences with either previous or consecutive sentences in D1 and D2 Texts when 2 and 3 links equal one bond by level and study language at the same level. Table O.6 indicates no significant differences between HT and LT except the FLT had a lower significant percent frequency of unbonded sentences than the ELT ($p=.03$) in D2 when 3 links equal one bond again showing the lexical density of the FLT.

**Table 0.5   Percent Frequency of Bonded and Unbonded Sentences
in D1 and D2 Texts when 2 and 3 Links Equal One Bond**

	2 Links = 1 Bond		3 Links = 1 Bond	
Diagnostic 1	**Mean**	**Std.Dev**	**Mean**	**Std.Dev**
HT				
Unbonded	17.84	15.22	49.34	22.98
EHT-Unbonded	20.32	15.65	47.94	24.18
FHT-Unbonded	14.81	15.02	51.07	22.75
Bonded	3.87	1.15	4.15	2.05
EHT-Bonded	3.55	1.35	3.91	2.10
FHT-Bonded	4.25	.75	4.45	2.07
LT				
Unbonded	25.17	19.82	47.09	32.82
ELT-Unbonded	37.14	22.30	61.31	36.44
FLT-Unbonded	21.18	17.96	42.35	31.40
Bonded	3.67	1.04	3.01	2.54
ELT-Bonded	3.14	1.11	1.70	1.47
FLT-Bonded	3.85	.99	3.45	2.70
Diagnostic 2				
HT				
Unbonded	20.84	10.26	62.44	13.98
EHT-Unbonded	19.13	12.71	59.29	17.58
FHT-Unbonded	23.12	6.06	66.64	6.17
Bonded	3.96	.51	3.41	1.27
EHT-Bonded	4.04	.64	3.70	1.60
FHT-Bonded	3.84	.30	3.03	.56
MT				

Unbonded	27.76	15.10	68.57	15.10
EMT-Unbonded	38.58	14.72	72.42	20.03
FMT-Unbonded	22.35	12.68	66.64	12.81
Bonded	3.61	.766	2.86	1.37
EMT-Bonded	3.07	.74	2.51	1.82
FMT-Bonded	3.88	.63	3.03	1.16
LT				
Unbonded	17.26	14.90	47.25	27.86
ELT-Unbonded	25.23	12.61	70.68	8.31
FLT-Unbonded	14.28	15.31	38.46	27.67
Bonded	4.15	.71	3.97	2.47
ELT-Bonded	3.74	.63	2.67	.76
FLT-Bonded	4.31	.71	4.46	2.75

Unbonded sentences = 0 bonds
Bonded sentences   =1-20 bonds

**Table O.6 Significant Differences in Frequency of Bonded vs
        Unbonded Sentences in D1 and D2 by Level and Study
        Language Using the Mann-Whitney Statistical Test**

	2 Links = 1 Bond		3 Links = 1 Bond	
BY LEVEL	Z	2 Tail P.	Z	2 Tail P.
Diagnostic 1 (N=40)				
HT with LT				
Unbonded sentences	-1.1653	.2439	- .1489	.8816
Bonded sentences	-.8388	.4016	-1.4353	.1512
Diagnostic 2 (N=40)				
HT with LT				
Unbonded sentences	-1.4056	.1598	- .9080	.3639
Bonded sentences	-1.0404	.2982	- .5474	.5841
HT with MT				
Unbonded sentences	-1.4626	.1436	- .9171	.3591
Bonded sentences	-1.4404	.1497	- .8948	.3709
MT with LT				
Unbonded sentences	-1.4705	.1414	-1.9707	.0488
Bonded sentences	-1.7130	.0867	-1.1681	.2427
BY STUDY LANGUAGE				
Diagnostic 1 (N=40)				
EHT with FHT				
Unbonded sentences	- .8773	.3803	- .3419	.7324
Bonded sentences	-1.4820	.1383	- .3419	.7324
ELT with FLT				
Unbonded sentences	-1.4861	.1372	-1.2266	.2200
Bonded sentences	-1.3545	.1756	-1.3148	.1886
Diagnostic 2 (N=40)				
EHT with FHT				
Unbonded sentences	-1.0998	.2714	- .8401	.4009
Bonded sentences	-1.0986	.2720	- .9037	.3662
EMT with FMT				
Unbonded sentences	-1.9596	.0500*	- .9194	.3579
Bonded sentences	-1.9596	.0500*	- .8573	.3913
ELT with FLT				
Unbonded sentences	-1.0288	.3036	-2.1653	.0304*
Bonded sentences	-1.2247	.2207	-1.4289	.1530

III. Percent Frequency of Bonds with Consecutive Sentences by Type of Paragraph (Topic Openers)

A. In D1 and D2 by Level and Study Language at the Same Level

The results in Table O.7 and O.8 indicate the mean percent frequency of bonds over the three major types of paragraphs in the texts with consecutive sentences (topic openers) by level and study language respectively which is a very important part of the development of ideas. Specifically, bonding between 1) the introductory paragraph and the body paragraphs, 2) the introductory paragraph and the concluding paragraph, and 3) the body paragraphs and the concluding paragraph.

The researcher wanted to find out the strength of bonding over longer distances in the discourse with consecutive sentences (development of ideas between paragraphs) and to see whether there are any differences between HT and LT as a preliminary step to the testing of the Research Question 3 (see Chapter Nine, Section III.). First, a browse through the tables shows a distinct frequency pattern in all texts and at all levels and study languages. The highest mean frequency of bonds when two and three links equal one bond is found between the introduction and body paragraphs, the next highest between the body and concluding paragraphs and the least mean frequency between the introductory and the concluding paragraphs. This pattern confirms the EFL methodology in teaching the composition in which the purpose of the introduction is to state new ideas, the body to develop them and the conclusion to summarize.

The results in Table O.9 indicate that there were no significant differences when two and three links equal one bond were considered by level but results in Table O.10 indicate that the FLT showed a significant higher frequency in D2 when compared to the ELT showing that the French educated students' texts are more lexically dense.

Table O.7 Percent Frequency of Bonds with Consecutive Sentences by Type of Paragraph in D1 and D2 Texts by Level

BY LEVEL	2 Links = 1 Bond		3 Links = 1 Bond	
Diagnostic 1	Mean	Std.Dev.	Mean	Std.Dev.
HT				
Intro. with Body	26.13	10.45	23.45	18.34
Intro. with Conc.	6.24	5.88	10.48	13.51
Body with Conc.	12.71	6.56	13.78	11.85
LT				
Intro. with Body	26.77	15.08	19.41	26.71
Intro. with Conc.	7.19	6.95	5.93	9.49
Body with Conc.	13.11	11.65	17.02	25.48
Diagnostic 2				
HT				
Intro. with Body	25.82	8.29	29.84	20.89
Intro. with Conc.	6.41	4.50	7.35	9.41
Body with Conc.	15.38	7.89	14.32	13.00
MT				
Intro. with Body	22.61	13.98	32.35	28.57
Intro. with Conc.	4.28	5.09	4.32	8.30
Body with Conc.	14.18	12.58	11.01	13.46
LT				
Intro. with Body	25.85	18.10	13.99	16.54
Intro. with Conc.	5.91	5.66	13.69	20.82
Body with Conc.	17.05	12.87	12.37	16.29

426

Table O.8 Percent Frequency of Bonds with Consecutive Sentences
by Type of Paragraph in D1 and D2 Texts by Study
Language at the Same Level

By Study Language	2 Links = 1 Bond		3 Links = 1 Bond	
Diagnostic 1	Mean	Std.Dev	Mean	Std.Dev
EHT				
Intro. with Body	28.12	12.04	22.88	20.45
Intro. with Conc.	6.30	6.23	7.52	10.02
Body with Conc.	11.80	8.07	13.20	14.05
FHT				
Intro. with Body	23.70	8.12	24.14	16.57
Intro. with Conc.	6.15	5.79	14.09	16.76
Body with Conc.	13.83	4.29	14.49	9.25
ELT				
Intro. with Body	28.82	11.70	10.00	22.36
Intro. with Conc.	5.87	6.53	.00	.00
Body with Conc.	9.07	9.62	40.00	41.83
FLT				
Intro. with Body	26.08	16.36	22.55	27.99
Intro. with Conc.	7.63	7.25	7.91	10.28
Body with Conc.	14.45	12.25	9.36	11.38
Diagnostic 2				
EHT				
Intro. with Body	26.38	8.76	22.03	17.35
Intro. with Conc.	6.24	4.16	5.35	6.07
Body with Conc.	14.29	10.02	14.51	13.28
FHT				
Intro. with Body	25.08	8.38	40.25	22.05
Intro. with Conc.	6.65	5.32	10.02	12.80
Body with Conc.	16.84	4.08	14.08	13.88
EMT				
Intro. with Body	23.22	16.22	41.33	40.32
Intro. with Conc.	3.76	4.89	2.67	5.96
Body with Conc.	18.82	17.10	4.00	8.94
FMT				
Intro. with Body	22.30	13.67	27.86	21.90
Intro. with Conc.	4.54	5.43	5.15	9.44
Body with Conc.	11.87	9.92	14.52	14.33
ELT				
Intro. with Body	7.11	6.42	16.67	16.67
Intro. with Conc.	7.11	6.42	16.67	16.67
Body with Conc.	23.77	20.67	16.67	16.67
FLT				
Intro. with Body	32.89	15.79	12.99	17.53
Intro. with Conc.	5.47	5.76	12.57	23.13
Body with Conc.	15.54	9.39	10.76	16.99

Table O.9 Significant Differences in Percent Frequency of Bonds among Paragraphs in D1 and D2 Texts by Level When Two and Three Links Equal One Bond Using the Mann Whitney Test

BY LEVEL	2 Links = 1 Bond		3 Links = 1 Bond	
Diagnostic 1	Z	2 Tail P.	Z	2 Tail P.
HT with LT				
Intro. with Body	- .6494	.5161	-1.2527	.2103
Intro. with Conc.	- .2317	.8167	-1.3629	.1729
Body with Conc.	- .7312	.4646	- .4448	.6564
Diagnostic 2				
HT with LT				
Intro. with Body	- .2342	.8148	-1.5938	.1110
Intro. with Conc.	- .1467	.8833	- .6383	.5233
Body with Conc.	- .4110	.6811	-1.3082	.1908
HT with MT				
Intro. with Body	- .3928	.6944	- .1097	.9126
Intro. with Conc.	-1.4726	.1409	-1.2941	.1956
Body with Conc.	-1.0480	.2947	- .6652	.5059
MT with LT				
Intro. with Body	- .6660	.5054	-1.5243	.1274
Intro. with Conc.	- .8805	.3786	-1.6908	.0909
Body with Conc.	- .5013	.6162	- .4190	.6752

Table O.10 Significant Differences in Percent Frequency of Bonds among Paragraphs in D1 and 2 Texts by Study Language Using the Mann Whitney Test

BY STUDY LANGUAGE	2 Links = 1 Bond		3 Links = 1 Bond	
	Z	2 TailP.	Z	2Tail P.
Diagnostic 1				
EHT with FHT				
Intro. with Body	- .8737	.3823	- .3424	.7321
Intro. with Conc.	- .0763	.9392	- .7849	.4325
Body with Conc.	.3420	.7323	- .4595	.6459
ELT with FLT				
Intro. with Body	- .1310	.8958	-1.1201	.2627
Intro. with Conc.	- .3982	.6905	-1.6151	.1063
Body with Conc.	- .8308	.4061	-1.4462	.1481
Diagnostic 2				
EHT with FHT				
Intro. with Body	- .2582	.7963	-1.5509	.1209
Intro. with Conc.	- .3231	.7466	- .6719	.5017
Body with Conc.	- .6455	.5186	.0000	1.0000
EMT with FMT				
Intro. with Body	- .3539	.7234	- .7758	.4379
Intro. with Conc.	- .3651	.7150	- .7562	.4495
Body with Conc.	- .4718	.6371	-1.7915	.0732
ELT with FLT				
Intro. with Body +	-2.3932	.0167*	- .2352	.8141
Intro. with Conc.	- .1154	.9082	- .4703	.6381
Body with Conc.	-1.0415	.2976	-1.3372	.1811

+ = FLT had the higher frequency

B. Between D1 and D2 Texts by Level and Study Language at the Same Level

The results in Table O.11 indicate the mean percent frequency of bonds in D2 by level and in Table O.12 the mean percent frequency of bonds in D2 by study language at the same level (i.e. the progress of the 20 texts from D1 to D2). The results in Table O.13 indicate that the ELT showed a significant decrease (p=.0431) between the introductory and concluding paragraphs in D2 texts when two links equal one bond. Otherwise, there were no significant differences in bonds between the paragraphs in both HT and LT from D1 to D2 when two and three links equal one bond were considered by level and study language at the same level.

**Table O.11 Percent Frequency of Bonds with Consecutive Sentences
        by Paragraph Type in D2 by Level (according to the D1
        HT and LT Variables)**

BY LEVEL	2 Links = 1 Bond		3 Links = 1 Bond	
Diagnostic 2	Mean	St.Dev.	Mean	St.Dev.
HT (N=20)				
Intro. with Body	26.05	9.01	31.63	25.55
Intro. with Conc.	5.38	4.29	7.06	9.50
Body with Conc.	14.11	7.71	13.78	15.22
LT (N=20)				
Intro. with Body	23.20	16.83	21.21	21.44
Intro. with Conc.	5.57	5.77	8.85	16.66
Body with Conc.	16.68	13.65	11.31	12.58

**Table O.12 Percent Frequency of Bonds with Consecutive Sentences
        by Paragraph Type in D2 by Study Language at the Same
        Level (according to D1 text variables)**

By Study Language	2 Links = 1 Bond		3 Links = 1 Bond	
Diagnostic 2 (N=40)	Mean	St.Dev.	Mean	St.Dev.
EHT (N=11)				
Intro. with Body	29.09	7.82	32.08	28.54
Intro. with Conc.	5.45	4.07	3.89	5.66
Body with Conc.	10.25	7.13	8.73	12.96
FHT (N=9)				
Intro. with Body	2.33	2.35	31.09	23.06
Intro. with Conc.	22.33	9.38	10.94	11.97
Body with Conc.	5.30	4.80	19.94	16.20
ELT (N=5)				
Intro. with Body	7.21	6.91	20.00	21.73
Intro. with Conc.	6.62	6.19	10.00	14.91
Body with Conc.	29.18	16.40	14.00	14.22
ELT (N=15)				
Intro. with Body	28.53	15.78	21.61	22.10
Intro. with Conc.	5.22	5.80	8.47	17.68
Body with Conc.	12.51	10.08	10.42	12.40

Table O.13 **Significant Differences in Percent Frequency of Bonds between Paragraph Types between D1 and 2 Texts by Level and Study Language at the Same Level Using the Wilcoxon Matched-Pairs Signed-Ranks Test**

D1 with D2	2 Links=1Bond		3 Links=1Bond	
	Z	2 Tail P	Z	2 Tail P.
High Texts				
Intro. with Body	- .3733	.7089	- .8853	.3760
EHT with EHT	- .2667	.7897	- .5606	.5751
FHT with FHT	- .2962	.7671	- .8885	.3743
Intro.with Conc.	- .4107	.6813	-1.3628	.1730
EHT with EHT	- .4446	.6566	- .7303	.4652
FHT with FHT	- .1777	.8590	-1.3416	.1797
Body with Conc.	- .5227	.6012	- .1293	.8971
EHT with EHT	.0000	1.0000	- .7001	.4838
FHT with FHT	-1.3624	.1731	- .3501	.7263
Low Texts				
Intro. with Body	- .5600	.5755	- .7533	.4513
ELT with ELT	-2.0226	.0431*	- .8018	.4227
FLT with FLT	- .8519	.3942	- .4446	.6566
Intro.with Conc.	- .6750	.4997	- .3556	.7221
ELT with ELT	- .3651	.7150	-1.3416	.1797
FLT with FLT	- .9730	.3305	- .4146	.6784
Body with Conc.	-1.0670	.2860	- .7384	.4603
ELT with ELT	-1.8257	.0679	-1.2780	.2012
FLT with FLT	- .4080	.6832	- .0445	.9645

D1 and D2: HT N=20 EHT N=11 FHT N=9
D1 and D2: LT N=20 ELT N=5 FLT N=15

APPENDIX P

STUDENT INTERVIEW SHEET

Name of Student _____ Nationality_____
Native Language_____Other languages _____
School Language_____ Major _____
Final Grade in English Courses: Freshman I __Freshman II __ Sophomore Rhetoric __
Class _____ Semester GPA _____ Cumulative GPA_____
(1 none; 2 least; 3 some; 4 most)

1. How important are the language skills in your university courses?

Reading	1	2	3	4
Listening	1	2	3	4
Speaking	1	2	3	4
Writing	1	2	3	4

2 How useful was the FI course?

How useful was the FI course?	1	2	3	4
FII course	1	2	3	4
Sophomore Rhetoric course?	1	2	3	4

3. How well do you cope with organizing your ideas 1 2 3 4
   in the essay in general?

Indicate specifically how below: (1=F 2=D 3=C 4=B 5=A)

	FI	FII	Soph. Rh.
Introduction	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Thesis Statement	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Body Paragraphs	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Conclusion	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Transitions between paragraphs	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Repetition-synonyms	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
- antonyms	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
- parts of speech	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Pronoun reference	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

4. How much difficulty do you still have in writing the essay?

Language	1	2	3	4
Organization	1	2	3	4
Content	1	2	3	4
Vocabulary	1	2	3	4
Mechanics	1	2	3	4

5. How much of the time do you consciously use the following:

Synonyms	1	2	3	4
Antonyms	1	2	3	4
Parts of Speech	1	2	3	4

6. How important do you consider these in essays?

Synonyms	1	2	3	4
Antonyms	1	2	3	4
Parts of Speech	1	2	3	4

7. Do you have any suggestions for improving FI, FII, or Sophomore Rhetoric?

APPENDIX Q

SAMPLE STUDENT INTERVIEWS

The comments below were obtained from the four students whose texts are reproduced in Appendix K according to student number. The comments (Part II) were part of the unguided interview and relate to question 7 on the interview sheet (see Appendix P). The comments pertaining to Part I were extra offered by the students during the questionning of items 1-6 on the interview sheet (see Appendix P). Some background information on the students is given.

Student 1 - Low Text

Study Language	: English
Native Language	: Arabic
Other languages	: English
Nationality	: Lebanese
Major	: Engineering
CGPA	: 2.7
Sex	: Male

Part 1

No comments

Part 2

T: Do you have any suggestions for us to improve the English course?
S: They're good

Student 2   Low Text

Study Language	: French
Other Languages	: English
Native Language	: Arabic
Nationality	: Lebanese/British
Major	: Business
CGPA	: 2.10
Sex	: Male

Part 1

I like to write on topics controversial related to life.
I don't concentrate on synonyms and antonyms.

Part 2

T: Do you have any suggestions how to improve the course?
S: No.

Student 3   High Text

Study Language	: English
Native Language	: Arabic
Other Languages	: None
Nationality	: Lebanese
Major	: Business
CGPA	: 3.32
Sex	: Female

Part I

No comments.

Part 2

T: Do you have any suggestions for improving the Freshman I course?

S: I didn't like the teacher...if I had a better teacher ...

Student 4 - High Text

Study Language	: **French**
Native Language	: **Arabic**
Other Languages	: **English, Spanish**
Nationality	: **Lebanese**
Major	: **Communication Arts**
CGPA	: **2.70**
Sex	: **Female**

Part I

We need more practice in the classroom in speaking

Part 2

T: Do you have any suggestions to improve the Freshman I course.

S: We need more practice in the classroom.

T: Is there anything that helped you (improve) in your writing or anything you would like to recommend.

S: More speaking.

T: More speaking.
If you had to take the Freshman English course again, what would you like to see improved.

S: Freshman I and Freshman II should be together. There is no need to have Freshman I and Freshman II.

T: And then to have a more advanced course after Freshman II. You mean there are many repetitions in Freshman II?

S: Yes.

T: What skill would help improve your language?

S: Maybe more exercises in the class.

T: More practice in the class. More writing in the class?

S: With writing.. discussions.

T: More discussions.

S: Discussions appear like we were in school not like communication.

T: Yes, perhaps do it a little more differently for the students.

S: More active.

T: More active.

S: It was a little bit annoying.

T: Do you still have problems in language?

S: In language, you see I'm French educated I have to improve this.

T: No, you are doing fine.

S: Sometimes I mix French and English.

T: When you think of vocabulary like synonyms and antonyms, what do you think the purpose of using them is?

S: Not to have a lot of repetition.
And it's more rich

T: Anything else you would like to add.

S: No.

BIBLIOGRAPHY

Abboud, S. and K. Shaaban, K. (1984), "The Findings of the Needs Analysis Survey Conducted at Bahrain's Polytechnic". *ESP Journal,* 4, pp. 147.

Abduhamdia, Zakaria (1984), "English Departments at Arab Universities; Toward a Planning-Based Model". *Language Problems and Language Planning,* 8:1, pp. 21-34.

Abdul Manan, Shakila (1989), "An Error Analysis of Malay Students' Written Compositions in Malaysia". Unpublished M.A. Thesis, University of Leicester, England.

Adamson, H.D. (1990), "ESL Students Use of Academic Skills in Content Courses". *English for Specific Purposes.* 9, pp. 67-87.

Aijmer, K. and Altenberg, B. (eds.) (1991), *English Corpus Linguistics.* London: Longman Group Limited.

Akinnaso, F. Niyi (1982), "On the Differences between Spoken and Written Language". *Language and Speech.* 25:2, pp. 97-125.

Al-Abed Al Haq, Fawwaz and Ahmed, Ahmed S.E.A. (1994), "Discourse Problems in Argumentative Writing". *World Englishes,* 13:3, pp. 307-323.

Al Chalabi, Samir A.R. (1984), "Modern Arabic Terminology and Bilingual Lexicography:: Activities and Problems". In Swales, John M. and Mustafa, H. (eds.), *English for Specific Purposes in the Arab World.* Birmingham, UK.: Language Studies Unit, University of Aston, pp. 280-291.

Alderson, Charles J. and Beretta, Alan (eds.) (1992), *Evaluating Second Language Education.* Cambridge: Cambridge University Press.

Alderson, Charles and North, Brian (1991), *Language Testing in the 1990's: The Communicative Legacy.* London: Macmillan Publishers Limited.

Al Hakim, Nouha (1984), "Arab Students' Learning Problems". In Swales, John M. and Mustafa, H. (eds.), *English for Specific Purposes in the Arab World.* Birmingham, UK.: Language Studies Unit, University of Aston, pp. 299-300.

Al Jubouri, Adnan J.R. (1984), "The Role of Repetition in Arabic Argumentative Discourse". In Swales, J. and Mustafa, H. (eds.) *English for Specific Purposes in the Arab World.* Birmingham, U.K.: Language Studies Unit, University of Aston, pp. 99-111.

Allwright, Dick and Bailey, Kathleen M. (1991), *Focus on the Language Classroom: An Introduction to Classroom Research for Language Teachers.* Cambridge: Cambridge University Press.

Allwright, R.L. et. al. (1988), "Investigating Reformulation as a Practical Strategy for the Teaching of Academic Writing". *Applied Linguistics,* 9:3, pp. 236-255.

Andrews, Richard (1989), *Narrative and Argument.* Philadelphia: Open University Press.

_____ (1995), *Teaching and Learning Argument.* London: Cassell Publishers.

_____ (1990), "Editorial" . *English in Education,* 24:1, pp. 1-2.

Anson, Chris M. (1988), "Toward a Multidimensional Model of Writing in the Academic Disciplines". In Jolliffe, D.A. (ed.) (1988), *Advances in Writing Research Vol.2: Writing in Academic Disciplines.* Norwood, N.J.: Ablex.

Applebee, A.N. (1981), *Writing in the Secondary School: English and the Content Areas: Research Report: 21.* Urbana, Illinois: National Council of Teachers of English.

Arapoff, N. (1967), "Writing: A Thinking Process". *TESOL Quarterly,* 1:2, pp. 33-39.

Bacha, Nola N. S. (1979), *Teaching the Use of Transitional Words to Advanced Students of English as a Foreign Language.* Unpublished M.A. Thesis, American University of Beirut, Lebanon.

_____ (1983), "A Few Practical Steps to the Teaching of the Paragraph". *TESOL Greece Newsletter,* November, pp. 37-39.

_____ (1993), *Faculty and EFL Students' Perceptions of the Importance of the Language Skills in Academic Course Work at the Lebanese American University, Byblos Branch.* Unpublished survey results, Byblos, Lebanon.

_____ (1994), *Faculty and EFL Students' Perceptions of the Language Abilities of the Students in the English Courses at the Lebanese American University, Byblos Branch.* Unpublished survey results, Byblos, Lebanon.

Bacha, N.S., and Hanania, E.A.S. (1980), "Difficulty in Learning and Effectiveness of Teaching Transitional Words: A Study on Arabic-Speaking University Students". *TESOL Quarterly,* 14, pp. 151-254.

_____ (1980b), *Transitional Words: A Guide for Students of English.* Beirut: American University of Beirut.

Bachman, Lyle F. (1990), *Fundamental Considerations in Language Testing.* Oxford: Oxford University Press.

_____ (1991), "What Does Language Testing Have to Offer". *TESOL Quarterly,* 25:4, pp. 671-672.

_____ (1995), *Studies in Language Testing TOEFL/IELTS: An Investigation of Two Tests of English as a Foreign Language.* Cambridge: Cambridge University Press.

Bader, Yousef (1992), "Curricula and Teaching Strategies in University English Departments: A Need for Change". *IRAL.* 30:3, pp. 233-240.

Bamberg, Betty (1982), "Multiple-Choice and Holistic Essay Scores: What Are They Measuring?"*College Composition and Communication,* 33:4, pp. 404-406.

Ball, Wendy E. (1986), "Writing English Script: An Overlooked Skill". *ELT Journal,* 40:4, pp. 291-298.

_____ (1983), "What Makes a Text Coherent?" *College Composition and Communication,* 34, pp. 417-429.

_____ (1984), "Assessing Coherence: A Re-analysis of Essays Written for the National Progress, 1969-1974". *Research in the Teaching of English,* 18:3, pp. 305-319.

Bartholomae, David (1980), "The Study of Error". *College Composition and Communication,* 31:3, pp. 253-269.

Barra, Alipio (1993), "Writing Reflection and Research May Increase Teacher Understanding". *English Teaching Forum,* July, 31:3, pp.14-17.

Barton, Lane D. and Ivanic, Roz (1991), *Writing in the Community.* Newbury Park, California: Sage Publications.

Baskoff, Florence (1981), "A New Look at Guided Writing". *English Teaching Forum,* July, pp.159-164.

Beebe, Leslie M. (ed.) (1988), *Issues in Second Language Acquisition-Multiple Perspectives.* New York: Newbury House Publishers.

Berlin, J.A. (1982), "Contemporary Composition: The Major Pedagogical Theories". *College English,* 44, pp. 765-777.

Benson, Nichola, Gurney, Sarah, Harrison, Judith and Rimmershaw, Rachel (1993), "The Place of Academic Writing in Whole Life Writing: A Case Study of Three University Students". *Language and Education,* 7:1, pp. 1-20.

Bereiter, Carl and Scardamalia, Marlene (1983), "Does Learning to Write Have to Be So Difficult?" In Freedman, Aviva (ed.), *Learning to Write: First Language/Second Language: Selected Papers from the 1979 CCTE Conference,* Ottowa, Canada. London: Longman Group Limited.

Bernhardt, Stephen A. (1986), "Applying a Functional Model of Language in the Writing Classroom". In Couture, Barbara (ed.)(1986), *Functional Approaches to Writing: Research Perspectives.* London: Frances Pinter Publishers, pp. 186-198.

Berrill, Deborah (1990), "What Exposition Has to do with Argument: Argumentative Writing of Sixteen-Year Olds. *English in Education,* 24:1, pp. 77-92.

Bhatia, Vijay K. (1993), *Analysing Genre.* London: Longman Group Limited.

Bhatt, Jennifer (1988), *A Study of Errors of Cohesion in the Writing of Second language Learners and Others in the Primary School with Some Appropriate Remedial Strategies*. Unpublished M.A. Thesis, University of Leicester, England.

Biber, Douglas (1988), *Variation across Speech and Writing*. Cambridge: Cambridge University Press.

Blanton, Linda L. (1987), "Reshaping ESL Students' Perceptions of Writing". *ELT Journal*, 41:2, pp. 112-118.

Bloor, Thomas and Bloor, Meriel (1995), *The Functional Analysis of English: A Hallidayan Approach*. London: Arnold Publishers.

Blyler, Nancy R. and Thralls, C. (eds.) (1993), *Professional Communication: The Social Perspective*. Newbury Park: Sage Publications.

Braddock, Richard et. al. (1963), *Research in Written Composition*. Illinois: National Council of Teachers of English.

Braine, George (1988), "A Reader Reacts...". *TESOL Quarterly*, 22:4, pp. 700-709.

Brandt, Deborah (1986), "Text and Context: How Writers Come to Mean". In Couture, Barbara (ed.) (1986), *Functional Approaches to Writing: Research Perspectives*. London: Frances Pinter Publishers, pp. 93-107.

The British Council. (1995), *English in the World: The English 2000 Global Consultation-Report*. Manchester: The British Council.

Britton, James (1990), "Heads or Tales?" *English in Education*, 24:1, pp. 3-9.

Britton, James et. al.(1975), *The Development of Writing Abilities (11-18)*. Houndmills: Schools Council Research Studies, MacMillan Education.

Brock, Mark N. (1990), "Can the Computer Tutor? An Analysis of a Disk Based Text Analyser." *System*, 18:3, pp. 351-359.

Brooke, Robert E. (1991), *Writing and a Sense of Self*. Urbana, Illinois: NCTE.

Brookes, Arthur and Grundy, Peter (1990a), *Writing for Study Purposes: A Teacher's Guide to Developing Individual Writing Skills*. Cambridge: Cambridge University Press.

Brookes, Arthur (1990b), "The Writing Process". In Brookes, Arthur and Grundy, Peter (1990a), *Writing for Study Purposes: A Teacher's Guide to Developing Individual Writing Skills*. Cambridge: Cambridge University Press, pp. 14-29.

Brossell, Gordon (1983), "Rhetorical Specification in Essay Examination Topics". *College English*, 45:2, pp.165-173.

Broughton, Geoffrey et.al. (1994), *Teaching English as a Foreign Language*. London: Routledge.

Brown, Charles P. (1987), *English for Computer Science.* Oxford: Oxford University Press.

Brown, Gillian et. al. (1983), *Teaching Talk: Strategies for Production and Assessment.* Cambridge: Cambridge University Press.

Brown, Gillian and Yule, George (1986), *Discourse Analysis,* Cambridge: Cambridge University Press.

Brown, James Dean (1988), *Understanding Research in Second Language Learning: A Teacher's Guide to Statistics and Research Design.* Cambridge: Cambridge University Press.

_____ (1990), "The Use of Multiple T-Tests in Language Research". *TESOL Quarterly,* 24:4, pp. 770-773.

_____ (1991a), "Do English and ESL Faculties Rate Writing Samples Differently?" *TESOL Quarterly,* 25:4, pp. 587-603.

_____ (1991b), "Statistics as a Foreign Language - Part I: What to Look for in Reading Statistical Language Studies". *TESOL Quarterly,* 25:4, pp. 569-585.

_____ (1992), "Statistics as aForeign Language - Part 2: More Things to Consider in Reading Statistical Language Studies". *TESOL Quarterly,* 25:4, pp. 629-664.

Brumfit, Christopher and Harper, David (eds.) (1986), *ESP for the University, ELT Documents: 123.* Oxford: Pergamon Press.

Brumfit, Christopher and Mitchell, Rosamond (1990), "Research in Applied Linguistics Relevant to Language Teaching:1989". *Language Teaching,* July, pp. 137-144.

Butler, C.S. (1979), "Recent Developments in Systemic Linguistics". *Language Teaching and Linguistics Abstracts,* 12:2, pp. 71-87.

_____ (1985) *Systemic Linguistics: Theory and Applications.* London: Batsford Academic and Educational Publishers

_____ (ed.) (1992), *Computers and Written Texts.* Oxford: Blackwell.

Byrne, Donn (1991), *Teaching Writing Skills.* London: Longman Group Limited.

Cairney, Trevor (1992), " 'Mountain or Mole Hill': The Genre Debate Viewed from 'Down Under'". *Reading,* 24:1, pp. 23-29.

Carlman, Nancy (1986), "Topic Differences on Writing Tests: How Much Do They Matter?" *English Quarterly,* 19:1, pp. 39-49.

Carlson, S. et.al. (1985), "Relationship of Admission Test Scores to Writing Performance of Native and Non-Native Speakers of English", *TOEFL Research Reports,* 19, Princeton, New Jersey: Educational Testing Service.

Carpenter, Cristin and Hunter, Judy (1981), "Functional Exercises: Improving Overall Coherence in ESL Writing". *TESOL Quarterly*, 15:4, pp. 425-434.

Carrell, Patricia (1982), " Cohesion Is Not Coherence". *TESOL Quarterly*, 16:4, pp. 479-488.

_____ (1983), "Reply to Ghadessy's Comments on 'Cohesion is Not Coherence'". *TESOL Quarterly*. 17, pp. 687-691.

_____ (1987), "Text as Interaction: Some Implications of Text Analysis and Reading Research for ESL Composition". In Connor, Ulla and Kaplan, Robert B. (eds.) (1987), *Writing across Languages: Analysis of L2 Text*. Reading, Mass.: Addison Wesley, pp. 47-55.

Carroll, Brendan J. and West, Richard (1989), *ESU Framework: Performance Scales for English Language Examinations*. London: Longman Group Limited.

Carter, Ronald (1987), *Vocabulary , Applied Linguistic Perspectives*. London: Allen and Unwin.

Carter, Ronald (1988), "Vocabulary, Close and Discourse". In Carter, Ronald and McCarthy, Michael (1988), *Vocabulary and Language Teaching*. London: Longman Group Limited, pp. 161-180.

Carter, Ronald and McCarthy, Michael (1988), *Vocabulary and Language Teaching*. London: Longman Group Limited.

Carthy, Veronica (1978), *An Analysis of the Use of Transitional Devices in Descriptive Composition of Native and Non-Native Speakers of English*. Unpublished M.A. Thesis, American University of Beirut, Lebanon.

Caudery, Tim (1990), "The Validity of Timed Essay Tests in the Assessment of Writing Skills". *ELT Journal,* 44:2, pp.122-131.

Caulk, Nat (1994), "Comparing Teacher and Student Responses to Written Work". *TESOL Quarterly,* 28:1, pp. 181-187.

Cazden, Courtney B. (1988), *Classroom Discourse: The Language of Teaching and Learning*. Portsmouth: NH., Heinemann.

Celce-Murcia, Marianne (1991), "Grammar Pedagogy in Second and Foreign Language Teaching". *TESOL Quarterly,* 25:3, pp. 459-480.

_____ (ed.) (1991), *Teaching English as a Second or Foreign Language*. Boston: Heinle and Heinle Publishers.

Cerniglia, Constance and Medsker, Karen (1990), "Improving Coherence by Using Computer-Assisted Instruction". In Connor, Ulla and Johns, Ann M. (eds.), *Coherence in Writing: Research and Pedagogical Perspectives*. Alexandria, Virginia: TESOL, Incorporated.

Chambers, Fred (1981, "Essay-Writing: Cohesion and Coherence". *MET,* 9:1, pp. 13-18.

Chapelle, Carol A. (1996), "CALL-English as a Second Language". *Annual Review of Applied Linguistics*, 16, pp. 139-157.

Chapman, John (1983), *Reading Development and Cohesion*. London: Heinemann Educational Books.

Charles, Maggie (1990), "Responding to Problems in Written English Using a Student Self-Monitoring Technique". *ELT Journal*, 44:4, pp. 286-293.

Charney, D. (1984), "the Validity of Using Holistic Scoring to Evaluate Writing". *Research in the Teaching of English*, 18, pp. 65-81.

Charney, David H. and Carlson, Richard A. (1995), "Learning to Write in a Genre: What Student Writers Take from Model Texts". *Research in the Teaching of English*, Feb., pp. 88-125.

Chaudron, Craig (1987), "Analysis of Products and Instructional Approaches in Writing: Two Articles on the State of the Art". *TESOL Quarterly*, 21:4, pp. 673-695.

_____ (1988), *Second Language Classrooms: Research on Teaching and Learning.* Cambridge: Cambridge University Press.

Christensen, F (1967), *Notes toward a New Rhetoric,* New York: Harper and Row.

Christie, Frances (1986), "Writing in Schools: Generic Structures as Ways of Meaning". In Couture, Barbara (ed.) (1986), *Functional Approaches to Writing: Research Perspectives.* London: Frances Pinter Publishers, pp. 221-240.

Clyne, Michael (1987), "Cultural Differences in the Organization of Academic Texts". *Journal of Pragmatics*, 11, pp. 211-247.

Cohen, Andrew (1994), *Assessing Language Ability in the Classroom (2nd.ed.).* Boston, Mass.: Heinle & Heinle Publishers.

Cohen, Andrew et. al. (1988) "Reading English for Specialized Purposes: Discourse Analysis and the Use of Student Informants". In Carrell, J. et. al. (eds.), *Interactive Approaches to Second Language Reading.* Cambridge: Cambridge University Press, pp. 152-167.

Cohen, Louis and Manion, Lawrence (1994), *Research Methods in Education.* New York: Routledge.

Coirier, Pierre (1991), "Production of Argumentative Discourse: The Textual Function of Statements Considered Important by the Speaker". In Denhiere, G. and Rossi, J.P. (eds.), *Text and Text Processing.* North Holland: Elsevier Science, pp. 363-373.

Comfort, Jeremy (1986), *English for Telecommunications Industry.* Oxford: Oxford University Press.

Connor-Linton, Jeff (1995), "Looking Behind the Curtain: What Do L2 Composition Ratings Really Mean?" *TESOL Quarterly*, 29:4, pp. 762-765.

Connor, Ulla, (1984), "A Study of Cohesion and Coherence in English as a Second Language Students' Writing". *Papers in Linguistics; International Journal of Human Communication,* 17, pp. 301-316.

_____ (1987a), "Argumentative Patterns in Student Essays: Cross Cultural Differences". In Connor, Ulla and Kaplan, Robert B. (eds.) (1987), *Writing across Languages: Analysis of L2 Text.* Reading, Mass.: Addison Wesley, pp. 57-71.

_____ (1987b), "Research Frontiers in Writing Analysis". *TESOL Quarterly,* 21:6, pp. 677-696.

_____ (1996), *Contrastive Rhetoric Cross-Cultural Aspects of Second-Language Writing.* Cambridge: Cambridge University Press.

Connor, Ulla and Johns, Ann M. (eds.) (1990), *Coherence in Writing: Research and Pedagogical Perspectives.* Alexandria, Virginia: TESOL, Incorporated.

Connor, Ulla and Lauer, Janice (1985), "Understanding Persuasive Essay Writing". Linguistic Rhetorical Approach." *Text,* 5:4, pp. 309-326.

Connor, Ulla and Kaplan, Robert B. (eds.) (1987), *Writing across Languages: Analysis of L2 Text.* Reading, Mass.: Addison Wesley

Connor, Ulla and McCagg, Peter (1987), "A Contrastive Study of English Expository Prose Paraphrases". In Connor, Ulla and Kaplan, Robert B. (eds.), *Writing across Languages: Analysis of L2 Text.* Reading, Mass.: Addison Wesley, pp. 73-86.

Conrad, Susan M. and Goldstein, Lynn M. (1990), "Student Input and Negotiation of Meaning in ESL Writing Conferences". *TESOL Quarterly,* 24:3, pp.443-460.

Converse, Jean and Presser, Stanley (1986), *Survey Questions.* London: Sage Publications.

Cook, Guy (1989), *Discourse.* Oxford: Oxford University Press.

Cope, Bill and Kalantzis, Mary (1993), *The Powers of Literacy: A Genre Approach to Teaching Writing.* London: The Falmer Press.

Cooper, Charles and Greenbaum, Sidney (1986), *Studying Writing: Linguistic Approaches Vol.1.* Newbury Park: Sage Publications.

Cooper, Charles R. and Odell, Lee (1977), *Evaluating Writing: Describing, Measuring, Judging.* Urbana, Illinois: National Council of Teachers of English.

_____ (1978) *Research on Composing: Points of Departure.* Urbana, Illinois: National Council of Teachers of English.

Corder, S. Pit (1967), "Significance of Learners' Errors". *IRAL,* 5:4, pp. 161-169.

_____ (1973), *Introducing Applied Linguistics.* Middlesex: Penguin Books Limited.

Cornu, A.M. et. al. (1990), "Investigating the Teaching of Writing Techniques in a Foreign Language: A Pedagogical Issue". *System,* 18:3, pp. 361-172.

Cortazzi, Martin (1992), *Differences between Speech and Writing.* M.A. Lectures for the M.A. TESOL Course, School of Education, University of Leicester, England.

Coupland, Justine (1984), "Writing Texts: Cohesion in Scientific and Technical Writing". In Williams, R., Swales, J., Kirkman, J. (eds.), *Common Ground: Shared Interests in ESP Communicative Studies,* pp. 55-61.

Coulthard, Malcolm (1975), "Discourse Analysis in English - A Short Review of the Literature". *Language Teaching* 8:2, pp. 73-89.

_____ (1985), *An Introduction to Discourse Analysis.* London: Longman Group Limited.

_____ (ed.) (1994a), *Advances in Written Text Analysis.* London: Routledge.

_____ (1994b), "On Analysing and Evaluating Written Text". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis.* London: Routledge, pp. 1-11.

Coulthard, Malcolm and Montgomery, Martin (ed.) (1982), *Studies in Discourse Analysis.* London: Routledge and Kegan Paul.

Couture, Barbara (ed.) (1986), *Functional Approaches to Writing: Research Perspectives.* London: Frances Pinter Publishers.

Crewe, W.J. (1990), "The Illogic of Logical Connectives". *English Language Teaching Journal,* 44:4, pp. 316-325.

Criper, Clive and Davies, Alan (1988), *Research Report 1 (I) ELTS Validation Project Report.* Cambridge: The British Council and University of Cambridge Local Examinations Syndicate.

Croft, Kenneth (1980), *Readings on English as a Second Language:* For Teachers and Teacher Trainers. Cambridge, Mass.: Winthrop Publishers, Incorporated.

Crombie, Winifred (1985), *Process and Relation in Discourse and Language Learning.* Oxford: Oxford University Press.

Crowhurst, Marion and Piche, Gene L. (1979), "Audience and Mode of Discourse Effects on Syntactic Complexity in Writing at Two Grade Levels". *Research in the Teaching of English,* 13:2, pp. 101-109.

Crusius, Timothy W. (1989), *Discourse: A Critique and Synthesis of Major Theories.* New York: The Modern Language Association of America.

Cruze, D.A. (1986), *Lexical Semantics.* Cambridge: Cambridge University Press.

Cumming, Alister (1990), " Expertise in Evaluating Second language Compositions". *Language Testing,* 7:1, pp. 31-51.

Cummins, Jim (1982), "The Sanitized Curriculum: Educational Disempowerment in a Nation at Risk". In Johnson, Keith, *Communicative Syllabus Design and Methodology.* Oxford: Pergamon Institute of English.

_____ (1991), "Language, Development and Academic Learning". In Malane, L. (ed.), *Language, Culture and Cognition.* Cleveton, Philadelphia: Multilingual Matters.

Cunningsworth, Alan (1983), "Teaching Cohesion in General EFL Courses". *MET*, 10:3, pp. 34-39.

Cushing-Weigle, Sara (1994), "Effects of Training on Raters of ESL Compositions". *Language Testing,* 11:2, pp. 197-223.

Czerniewska, Pam (1989), "The National Writing Project: Thoughts about the Early Years". In Hunter-Carsch, Morag (ed.), *The Art of Reading.* Oxford: Blackwell.

D'Angelo, Frank. (1975), *A Conceptual Theory of Rhetoric.* Cambridge: Winthrop Publishers.

Davidson, David (1976), "Assessing Writing Ability of ESL College Freshman". *ERIC,* New York: TESOL.

Davies, Alan (1975) (ed.), *Problems of Language and Learning.* London: Heinemann.

Davies, Normal F. and Omberg, Margaret (1987), "Peer-Group Teaching and the Composition Class". *System,* 15:3, pp. 313-323.

De Beaugrande, Robert A. and Dressler, Wolfgang U. (1981), *Introduction to Text Linguistics.* London: Longman Group Limited.

Dheram, Prema Kumari (1995), "Feedback as a Two-Bullock Cart: A Case Study of Teaching Writing". *ELT Journal,* 49:2, pp. 160-168.

Doherty, Michael (1987), *Write for Business.* Harlow: Longman Group Limited.

Donald, Robert B (1989), *Models for Clear Writing.* New Jersey: Prentice-Hall.

Donnelly, Colleen, (1994), *Linguistics for Writers.* New York: State University of New York Press.

Donovan, Timothy R. and McClelland Ben W. (1980), *Eight Approaches to Teaching Composition.* Illinois:National Council of Teachers of English.

Douglas, Dan (1995), "Developments in Language Testing". *Annual Review of Applied Linguistics,* 15, pp. 167-187.

Doushaq, Mufeeq H. (1986), "An Investigation into Stylistic Errors of Arab Students Learning English for Academic Purposes". *English for Specific Purposes,* 5:1, pp. 27-39.

Dudley-Evans T. (1990), *The Language of Economics: The Analysis of Economics Discourse, ELT Documents 134*. British Council: Modern English Publications.

_____ (1994), "Genre Analysis: An Approach to Text Analysis for ESP". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis*. London: Routledge, pp. 219-228.

Dudley-Evans A. and Swales, John (1980), "Study Modes and Students from the Middle East". In *Study Modes and Academic Development of Overseas Students, ELT Documents, 109*. London: The British Council.

Ebam, Oru O. (1989), "On the Reliability and Validity of Holistic Scoring of Compositions in Nigeria". *British Journal of Language Teaching*, 26, pp. 152-158.

Eggins, Suzanne (1994), *An Introduction to Systemic Functional Linguistics*. London: Pinter Publishers.

Eggins, Suzanne and Martin, J.R. (1997), "Genres and Registers of Discourse". In van Dijk, T.A. (ed.), *Discourse as Structure and Process*. London: Sage Publications, pp. 230-256.

Ehrlich, Susan (1988), "Cohesive Devices and Discourse Competence". *World Englishes*, 7:2, pp. 111-118.

Elbow, Peter (1981), *Writing with Power: Techniques for Mastering the Writing Process*. Oxford: Oxford University Press.

Ellis, Rod (1990), *Instructed Second Language Acquisition*. Oxford: Basil Blackwell Limited.

Emig, Janet (1977), "Writing as a Mode of Learning". *College Composition and Communication*. 28, pp. 122-128.

Emmott, Catherine (1994), "Frames of Reference: Contextual Monitoring and the Interpretation of Narrative Discourse". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis*. London: Routledge, pp. 157-166.

Engber, C. (1995), "The Relationship of Lexical Proficiency to the Quality of ESL Compositions". *Journal of Second Language Writing*, 4:2, pp. 139-155.

Enkvist, Nils E. (1990), "Seven Problems in the Study of Coherence and Interpretability". In Connor, Ulla and Johns, Ann M. (eds.), *Coherence in Writing: Research and Pedagogical Perspectives*. Alexandria, Virginia: TESOL, Incorporated, pp. 11-28.

_____ (1987), "Text Linguistics for the Applier: An Orientation". In Connor, Ulla and Kaplan, Robert B. (eds.) (1987), *Writing across Languages: Analysis of L2 Text*. Reading, Mass.: Addison Wesley, pp. 23-43.

Evola, Jill et. al. (1980), "Discrete Point Versus Global Scoring for Cohesive Devices". In Oller, John W. Jr. and Perkins, Kyle (eds.), *Research in Language Testing*. Mass.: Newbury House Publishers Incorporated, pp. 177-183.

Fanning, Paul (1981a), "Academic Essay-Writing". *Modern English Teacher*, 9:1, pp. 11-13.

_____ (1981b), "Essay-Writing: Cohesion and Coherence". *Modern English Teacher*, 9:1, pp. 13-17.

Farghal, Mohammed (1992), "Naturalness and the Notion of Cohesion in EFL Writing Classes". *IRAL*, 30:1, pp. 45-50.

Ferris, Dana R. (1994), "Lexical and Syntactic Features of ESL Writing by Students at Different Levels of L2 Proficiency". *TESOL Quarterly*, 28:2, pp. 414-420.

_____ (1995), "Student Reactions to Teacher Response in Multi-Draft Composition Classrooms". *TESOL Quarterly*, 29:1, pp. 33-53.

Fitzpatrick, Anthony (1979), *English for International Conferences*. Hemel Hempstead: Prentice-Hall.

Flower, Linda (1988), "The Construction of Purpose in Writing and Reading". *College English*, 50, pp. 528-550.

Flower, Linda and Hayes, John R. (1981), "A Cognitive Process Theory of Writing". *College Composition and Communication*. 32:4, pp. 365-387.

Flowerdew, John (1990), "Englilsh for specific Purposes - a Selective Review of the Literature". *English Language Teaching Journal*, 44:4, pp.326-337.

_____ (1993), "An Educational or Process Approach to the Teaching of Professional Genres". *ELT Journal*, 47:4, pp. 305-316.

Flahive, Douglas and Snow, Becky G. (1980) "Measures of Syntactic Complexity in Evaluating ESL Compositions". In Oller, John W. Jr. and Perkins, Kyle (eds.), *Research in Language Testing*. Mass.: Newbury House Publishers Incorporated, pp. 171-176.

Fotos, Sandra and Ellis, Rod (1991), "Communicating about Grammar: A Task-Based Approach". *TESOL Quarterly*, 25:4, pp. 605-628.

Fox, Barbara (1993), *Discourse Structure and Anaphora: Written and Conversational English*. Cambridge: Cambridge University Press.

Fox, Carol (1990), "The Genesis of Argument in Narrtive Discourse". *English in Education*, 24:1, pp. 23-31.

Fox, Jeremy and Mahood, John (1982), "Survey Review, Lexicons and the ELT Materials Writer". *ELT Journal*, 36:2, pp. 125-129.

Francis, Gill (1989), "Thematic Selection and Distribution in Written Discourse". *Word*, 40:1-2, pp. 201-221.

_____ (1994), "Labelling Discourse: An Aspect of Nominal-Group Lexical Cohesion". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis*. London: Routledge, pp. 83-101.

Frank, Marcella (1990), *Writing as Thinking: A Guided Process Approach*. New Jersey, Prentice Hall.

Franken, Margaret (1987), "Self-Questioning Scales for Improving Academic Writing Guidelines". *RELC Journal Supplement*, 9:1, pp. 1-8.

Frankenberg-Garcia, Ana (1990), "Do the Similarities between L1 and L2 Writing Processes Conceal Important Differences?" *Edinburgh Working Papers in Applied Linguistics*, pp. 91-102.

Freed, Alice F. (1995), "Language and Gender". *Annual Review of Applied Linguistics*, 15, pp. 3-22.

Freedman, Aviva et. al. (eds.) (1983), *Learning to Write: First Language/Second Language: Selected Papers from the 1979 CCTE Conference, Ottawa, Canada.* Longman: Longman Group Limited.

Fries, Peter H. (1994), "On Theme, Rheme and Discourse Goals". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis.* London: Routledge, pp. 229-249.

Fulwiler, Toby and Young, Art (1990), *Programs That Work: Models and Methods for Writing across the Curriculum.* Portsmouth: Boynton Cook Publisher.

Garbutt, Michael and O'Sullivan, Kerry (1991), *IELTS: Strategies for Study.* Sydney, Macquarie University: National Center for English Language Teaching and Research.

Gardner, Roderick (1984), "Discourse Analysis: Implications for Language Teaching, with Particular Reference to Casual Conversation", *Language Teaching*, April: 2, pp. 102-117.

Geranpayeh, Ardeshir, (1994), "Are Score Comparisons across Language Proficiency Test Batteries Justified? An IELTS-TOEFL Comparability Study". *Edinburgh Working Papers in Applied Linguistics*, 5, pp. 50-65.

Geva, Esther (1992), "The Role of Conjunctions in L2 Text Comprehension". *TESOL Quarterly*, 25:4, pp. 731-747.

Ghadessy, Mohsen (1980), "Implications of Error Analysis for Second/Foreign Language Acquisition". *IRAL*, 28:2, pp. 93-101.

_____ (1983), "Comments on Patricia Carrel's 'Cohesion is Not Coherence' ". *TESOL Quarterly*, 17, pp. 685-686.

Gibran, Khalil (1923), *The Prophet.* New York: Alfred A. Knopf, Inc.

Gimenez, Telma and Sunderland, Jane (1993), *Research Processes in Applied Linguistics.* Lancaster: Department of Linguistics and Modern English Language.

Glendinning, Eric (1974), *English in Mechanical Engineering.* Oxford: Oxford University Press.

_____ (1980), *English in Electrical Engineering and Electronics*. Oxford: Oxford University Press.

_____ (1987), *English in Medicine*. Cambridge: Cambridge University Press.

Godshalk, F.I. et. al. (1966), *The Measurement of Writing Ability*. New York: College Entrance Examination Board.

Goldman, Susan R. and Murray, John D. (1992), "Knowledge of Connectors as Cohesion Devices in Text: A Comparative Study of Native-English and English as a Second Language Speakers". *Journal of Educational Psychology*. 84:4, pp. 504-519.

Goldstein, Lynn M. and Contrad, Susan M. (1990), "Negotiation of Meaning in ESL Writing Conferences". *TESOL Quarterly*, 24:3, pp. 445-460.

Goodman, Kenneth, S. et.al. (1987), *Language and Thinking in School: A Whole Language Curriculum*. New York: C. Owen Publishers.

Gosling, G. W.H. (1966), *Marking English Compositions*. Victoria: Australian Council for Educational Research.

Grabe, William (1987), "Contrasting Rhetoric and Text Type Research". In Connor, Ulla and Kaplan, Robert B. (eds.) (1987), *Writing across Languages: Analysis of L2 Text*. Reading, Mass.: Addison Wesley, pp. 115-137.

Grabe, William and Kaplan, Robert B. (1989), "Writing in a Second Language, Contrastive Rhetoric". In Johnson, Donna M. and Roen, Duane H. (eds.), *Richness in Writing*. London: Longman Group Limited, pp. 263-283.

Grabe, William and Kaplan, Robert B. (1996), *Theory and Practice of Writing*. London: Addison Wesley Longman Limited.

Granger, Sylviane and Tyson, Stephanie (1996), "Connector Usage in the English Essay Writing of Native and Non-Native EFL Speakers of English". *World Englishes*, 15:1, pp. 7-27.

Graves, Donald H. (1983), *Writing: Teachers and Children at Work*. London: Heinemann Educational Books.

Greenberg, Karen L. et. al. (1986), *Writing Assessment: Issues and Strategies*. London: Longman Group Limited.

Greenia, George D. (1992), "Computers and Teaching Composition in a Foreign Language". *Foreign Language Annals*, 25:1, pp. 33-46.

Grice, H.P. (1975), "Logic and Conversation". In Cole, Peter an Morgan, J. L. *Syntax and Semantics Speech Acts, Vol.3*. New York: Academic Press, pp.41-58.

Griffin, C.W. (1982), "Theory of Responding to Student Writing: The State of the Art". *College Composition and Communication*. 33:3, pp. 296-301.

Grimshaw, Allen D. (ed.) (1990), *Conflict Talk*. Cambridge: Cambridge University Press.

Hagen, L.B. (1971), "An Analysis of Transitional Devices in Student Writing", *Research in the Teaching of English*, 5, pp. 190-201.

Hall, Ernest (1991), "Variations in Compositing Behaviours of Academic ESL Writers in Test and Non-Test Situations". *TESL Canada Journal*, 8:2, pp. 9-33.

Halliday, M.A.K. (1966), "Lexis as a Linguistic Level". In Bazell, C.E. et.al. *In Memory of J.R. Firth*. London: Longman Group Limited, pp. 148-162.

_____ (1989), *Spoken and Written Language*. Oxford: Oxford University Press.

_____ (1994), *An Introduction to Functional Grammar*. London: Edward Arnold.

Halliday, M.A.K. and Hasan, Ruqaiya (1976), *Cohesion in English*. London: Longman Group Limited.

_____ (1989), *Language, Context, and Text: Aspects of language in a Social-Semiotic Perspective*. Oxford: Oxford University Press.

Halliday, M.A.K. and Martin, J.R. (1993), *Writing Science: Literacy and Discursive Power*. London: The Falmer Press.

Hamayan, Else V. (1995), "Aproaches to Alternative Assessment". *Annual Review of Applied Linguistics*, 15, pp. 212-226.

Hamdan, A.S. (1988), *Coherence and Cohesion in Texts Written in English by Jordanian University Students*. Unpublished Ph.D. Thesis, Manchester University, England.

Hamp-Lyons, Liz (1986a), *Testing Second Language Writing in Academic Settings*. Unpublished Doctoral Dissertation, University of Edinburgh, England.

_____ (1986b), "Writing in a Foreign Language and Rhetorical Transfer: Influences on Raters' Evaluation". In Meara, P. (ed.), *Spoken Language*. London: Center for Information on Language Teaching, pp. 72-84.

_____ (1990), "Second Language Writing: Assessment Issues". In Kroll, Barbara, (ed.), *Second Language Writing: Research Insights for the Classroom*. Cambridge: Cambridge University Press. pp. 69-87.

_____ (ed.) (1991), *Assessing Second Language Writing in Academic Contexts*. Norwood, N.J.: Ablex.

_____ (1995), "Rating Nonnative Writing: The Trouble with Holistic Scoring". *TESOL Quarterly*, 29:4, pp. 759-762.

Hamp-Lyons, Liz and Heasley, Ben (1984), "Survey Review: Textbooks for Teaching Writing at the Upper Levels". *English Language Teaching Journal*, 38:3, pp. 209-216.

Hamp-Lyons, Liz and Henning, Grant (1991), "Communicative Writing Profiles: An Investigation of the Transferability of a Multiple-Trait Scoring Instrument Across ESL Writing Assessment Contexts". *Language Learning.* 41:3, pp. 337-373.

Hanania, E.A.S. and Bacha, N.S. (1980, March*).* *The Teaching of Linking Words to Advanced ESL Students.* Paper Presented at the 14th Annual TESOL Convention, San Franciso: California.

Hannay, Mike and Mackenzie, J. Lachlan (1990), "The Writing Student: From the Architect of Sentences to the Builder of Texts". In Nash, Walter (ed.), *The Writing Scholar: Studies in Academic Discourse, Vol.3.* Newbury Park, California: Sage Publications, pp. 205-234.

Harpin, William (1976), *The Second 'R' Writing Development in the Junior School.* London: George Allen and Unwin Limited.

Hartnett, Carolyn G. (1986), "Determining How Written Language is Valued: Static and Dynamic Cohesion: Signals of Thinking in Writing". In Couture, Barbara (ed.), *Functional Approaches to Writing: Research Perspectives.* London: Frances Pinter Publishers, pp. 142-153.

Harris, John (1993), *Introducing Writing.* London: Penguin Books Limited.

Harris, Roy and Taylor, Talbout J. (1989), *Landmarks in Linguistic Thought: The Western Tradition from Socrates to Saussure.* London: Routledge.

Hasan, R. (1984), "Coherence and Cohesive Harmony". In Flood, J. (ed.), *Understanding Reading Comprehension".* Delaware: International Reading Association, pp. 181-219.

Hashimoto, Irvin Y. et. al. (1982), *Strategies for Academic Writing: A Guide for College Students.* Ann Arbor: The University of Michigan Press.

Haswell, Richard H. (1988), "Critique: Length of Text and the Measurement of Cohesion". *Research in the Teaching of English.* 22:4, pp. 428-433.

Hatch, Evelyn (1992), *Discourse and Language Education.* Cambridge: Cambridge University Press.

Hatch, Evelyn and Brown, Cheryl (1995), *Vocabulary, Semantics, and Language Education.* Cambridge: Cambridge University Press.

Hatch, Evelyn and Lazaraton, Ann (1991), *The Research Manual: Design and Statistics for Applied Linguistics.* New York: Newbury House Publishers.

Hays, Janice N. et. al. (1990), "Argumentative Writing of Students: Adult Socio-Cognitive Development". In Kirsch, Cesa and Roen, Duane H. (eds.), *A Sense of Audience in Written Communication.* Newbury Park: Sage Publications.

Hays, John R. and Flower, Linda S (1983), "Uncovering Cognitive Process in Writing: An Introduction to Protocol Analysis." In Mosenthal, P.B. et.al. (eds.), *Research on Writing Principles and Methods.* New York: Longman Group Limited, pp. 207-220.

Hayward, Kathy and Wilcoxon, Hardy, C. (1994), "Connectives in Text". *English Teaching Forum*, 32:3, pp. 20-23.

Hayward, Malcolm (1990), "Evaluations of Essay Prompts by Nonnative Speakers of English". *TESOL Quarterly*, 24: 4, pp. 753-758.

Heath, Shirley B. (1989), "Talking the Text in Teaching Composition". In de Castell, S. de, Luke A, and Luke, C., *Language, Authority and Criticism: Readings into the School Textbook*. London: Falmer, pp. 109-121.

Hedge, Tricia (1988), *Writing*. Oxford: Oxford University Press.

Henry, Alex and Roseberry, Robert L. (1996), "A Corpus-Based Investigation of the Language and Linguistic Patterns of One Genre and the Implications for Language Teaching". *Research in the Teaching of English*, 30:4, pp. 472-489.

Herrington, Ann J. (1989), "The First Twenty Years of Research in the Teaching of English and the Growth of a Research Community in Composition Studies". *Research in the Teaching of English*. 23:2, pp. 117-138.

Herrington, Ann and Moran, Charles (1992), *Writing, Teaching, and Learning in the Disciplines*. New York: The Modern Language Association of America.

Hewitt, Geof (1995), *A Portfolio Primer: Teaching, Collecting, and Assessing Student Writing*. Portsmouth, NH: Heinemann.

Hill, David (1986), "Writing Practice: From Sentence to Essay Level". In Harper, David (ed.), *ESP for the University, ELT Documents: 123*. Oxford: Pergamon Press.

Hillocks, Goerge Jr. (1986), *Research on Written Composition: New Directions for Teaching*. Urbana, Illinois: National Conference on Research in English and ERIC Clearinghouse on Reading and Communication Skills.

Hinkel, E (1992), "Insight into Academic Writing: What Determines Text Clarity?" *Paper presented at the 26th Annual TESOL Conference*, Vancouver.

Hinds, John (1987), "Reader Versus Writer Responsibility: A New Typology". In Connor, Ulla and Kaplan, Robert B. (eds.) (1987), *Writing across Languages: Analysis of L2 Text*. Reading, Mass.: Addison Wesley, pp. 141-152.

Hoetker, James (1982), "Essay Examination Topics and Students' Writing". *College Composition and Communication*. 33:4, pp. 377-392.

Hoey, Michael (1983), *On the Surface of Discourse*. London: Allen and Unwin.

_____ (1991a), *Patterns of Lexis in Text*. Oxford: Oxford University Press. (Won the Duke of Edinburgh English Language Prize in 1991)

_____ (1991b), "Another Perspective on Coherence and Cohesive Harmony". In E. Ventola (ed.), *Functional and Systemic Linguistics, Approaches and Uses*. Berlin: Houton de Gruyter, pp. 385-413.

_____ (1994), "Signalling in Discourse: A Functional Analysis of a Common Discourse Pattern in Written and Spoken English". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis*. London: Routledge, pp. 26-45.

Hoey, Michael and Winter, Eugene (1986), "Clause Relations and the Writer's Communicative Task". In Couture, Barbara (ed.), *Functional Approaches to Writing: Research Perspectives*. London: Frances Pinter Publishers, pp. 120-141.

Homburg, Taco Justus (1984), "Holistic Evaluation of ESL Compositions: Can It Be Validated Objectively?" *TESOL Quarterly*, 18:1, pp. 87-107.

Holes, Clive (1984), "Textual Approximation in the Teaching of Academic Writing to Arab Students: A contrastive Approach". In Swales, J and Mustafa, H. (eds.) *English for Specific Purposes in the Arab World*. Birmingham, U.K.: Language Studies Unit, University of Aston, pp. 228-242.

Holmstrom, Beverly, A.S. (1992), *Study Reading: A Course in Reading Skills for Academic Purposes*. Cambridge: Cambridge University Press.

Horowitz, Daniel M. (1986a), "Essay Examination Prompts and the Teaching of Academic Writing". *English for Specific Purposes*, 5:2, pp. 107-120.

_____ (1986b) "What Professors Actually Require: Academic Tasks for the ESL Classroom". *TESOL Quarterly*, 20:3, pp.445-462.

Hudson, R.A. (1996), *Sociolinguistics*. Cambridge: Cambridge University Press.

Hughes, Arthur (1988), *Testing English for University Study: ELT Document 127*. Oxford: Modern English Publications.

Hult, Christine A. (1986), "Global Marking of Rhetorical Frame in Text and Reader Evaluation". In Couture, Barbara (ed.), *Functional Approaches to Writing: Research Perspectives*. London: Frances Pinter Publishers, pp. 154-168.

Hunston, Susan (1994), "Evaluation and Organization in a Sample of Written Academic Discourse". In Coulthard Malcolm, (ed.), *Advances in Written Text Analysis*. London: Routledge, pp. 191-218.

Hunt, Kellogg W. (1970), "Syntactic Maturity in School Children and Adults". *Monographs of the Society for Research in Child Development*, 35:1, pp. 1-21.

_____ (1977), "Early Blooming and Late Blooming Syntactic Structures". In Cooper, Charles R. and Odell, Lee, *Evaluating Writing: Describing, Measuring, Judging*. Urbana, Illinois: National Council of Teachers of English, pp. 91-104.

Hunter-Carsch, Morag C. (ed.) (1989), *The Art of Reading*, Oxford: Blackwell.

_____ (1990), "Improving Students' Essay-Writing". *Reading*, 24:2, pp. 76-91.

Husen, T. and Rostlethwaite, T.N. (eds.) (1994), "Lebanon: System of Education". *The International Encyclopedia of Education*. Oxford: Pergamon Press, pp. 3349-3356.

Hyland, Ken (1990), "Providing Productive Feedback". *ELT Journal,* 44:4, pp. 279-285.

Hyon, Sunny (1996), "Genre in Three Traditions: Implications for ESL". *TESOL Quarterly,* 30:4, pp. 693-722.

Jackson, Howard (1988), *Words and Their Meaning.* London: Longman Group Limited.

Jacobs, H.J. et. al. (1981), *Testing ESL Composition: A Practical Approach.* Rowley, Mass.: Newbury House.

Jacobs, Suzanne E. (1982), "Composing and Coherence: *The Writing of Eleven Pre-Medical Students.* Washingon, D.C.: Center for Applied Linguistics.

Jafarpur, A. (1991), "Cohesiveness As a Basis for Evaluating Compositions". *System,* 19:4, pp. 459-465.

James, Carl (1980), *Contrastive Analysis.* London: Longman Group Limited.

_____ (1990), "Learner Language". *Language Teaching,* October, pp. 205-213.

Johns, Ann M. (1979), "Cohesive Error in the Written Discourse of Non-Native Speakers". *Paper Presented at the 13th Annual Convention of TESOL, Boston, Abstract* p.161.

_____ (1980), "Cohesion in Written Business Discourse: Some Contrasts". *The ESP Journal,* 1:1, pp. 35-43.

_____ (1981), "Necessary English: A Faculty Survey". *TESOL Quarterly,* 15:1, pp. 51-57.

_____ (1986), "Coherence and Academic Writing: Some Definitions and Suggestions for Teaching". *TESOL Quarterly,* 20:2, pp. 247-265.

_____ (1988), "Another Reader Reacts...". *TESOL Quarterly,* 22:4, pp. 705-707.

_____ (1990a), "Coherence As a Cultural Phenomenon: Employing Ethnographic Principles in the Academic Milieu". In Connor, Ulla, and Johns, Ann M. (eds.), *Coherence in Writing: Research and Pedagogical Perspectives.* Alexandria, Virginia: TESOL, Incorporated.

_____ (1990b), "L1 Composition Theories: Implications for Developing Theories of L2 Composition". In Kroll, Barbara (ed.), *Second Language Writing: Research Insights for the Classroom.* Cambridge: Cambridge University Press pp. 24-36.

_____ (1993), "Written Argumentation for Real Audiences: Suggestions for Teacher Research and Classroom Practice". *TESOL Quarterly,* 27:1, pp. 75-90.

Johns, Tim (1994), "The Text and Its Message". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis.* London: Routledge, pp. 102-116.

Johnson, Donna M. (1989), "Enriching Task Contexts for Second Language Writing: Power through Interpersonal Roles". In Johnson, Donna M. and Roen, Duane H. (eds.) (1989), *Richness in Writing*. London: Longman Group Limited, pp. 39-54.

_____ (1992), *Approaches to Research in Second Language Learning*. London: Longman Group Limited.

Johnson, Donna M. and Roen, Duane H. (eds.) (1989), *Richness in Writing*. London: Longman Group Limited.

Johnson, Keith (1982), "Semantic Syllabus Design for Written English, Report 6". In Johnson, Keith, *Syllabus Design and Methodology*. Oxford: Oxford Pergamon Institute of English, pp.77-221.

Johnson, Keith (1988), "Mistake Correction". *ELT Journal.* 42:2, pp. 89-96.

Johnston, Richard (1992), "Research on Language Learning and Teaching: 1991". *Language Teaching,* July, pp. 139-150.

Johnston, Sue Ann (1985), "An Approach to the Teaching of Academic Writing". *ELT Journal,* 39:4, pp. 248-252.

De Joia, Alex and Stenton, Adrian (1980), *Terms in Systemic Linguistics: A Guide to Halliday.* London: Batsford Academic and Educational Limited.

Jolliffe, D.A. (ed.) (1988), *Advances in Writing Research, Vol 2: Writing in Academic Disciplines.* Norwood, N.J.: Ablex.

Jones, Christopher and Fortescue, Sue (1987), *Using Computers in the Language Classroom.* London: Longman Group Limited.

Jordan, Michael P. (1984), *Rhetoric of Everyday English Texts.* London: George Allen and Unwin.

Jordan, R.R. (1989), "English for Academic Purposes (EAP)". *Language Teaching,* July, pp. 150-164.

_____ (1990), *Academic Writing Course.* London: Harper Collins Publishers.

Jaszozolt, Katarzyma (1995), "Typology of Contrastive Studies: Specialisation, Progress and Implictions". *Language Teaching,* 28, pp. 1-15.

Kachru, Braj B. (1992), "World Englishes". *Approaches, Issues and Resources.* Language Teaching, Jan., pp. 1-14.

Kaczmarek, Celeste M. (1980), "Scoring and Rating Essay Tasks". In Oller, John W. Jr. and Perkins, Kyle (eds.), *Research in Language Testing.* Mass.: Newbury House Publishers Incorporated, pp. 151-159.

Kameen, Patrick T. (1983), "Syntactic Skill and ESL Writing Quality". In Freedman, Aviva et. al. (eds.) , *Learning to Write: First Language/Second Language: Selected Papers from the 1979 CCTE Conference.* Longman: Longman Group Limited, pp. 162-169.

Kane, Thoms S. and Peters, Leonard J. (eds.) (1980), *Writing Prose: Techniques and Purposes.* Oxford: Oxford University Press.

Kaplan, Robert B. (1966), "Cultural Thought Patterns in Intercultural Education". *Language Learning,* 16, pp. 1-21.

_____ (1967), "Contrastive Rhetoric and the Teaching of Composition". *TESOL Quarterly,* 1:4, pp. 10-16.

_____ (1972), *The Anatomy of Rhetoric: Prolegomena to a Functional Theory of Rhetoric.* Philadelphia: Center for Curriculum Development Incorporated.

_____ (1983), "Contrastive Rhetorics: Some Implications for the Writing Process". In Freedman, Aviva et.al. *Learning to Write: First and Second Language.* Selected Papers from 1979 CCTE Conference, London: Longman Group Limited, pp. 139-161.

_____ (1987), "Cultural Thought Patterns Revisited". In Connor, Ulla and Kaplan, Robert B. (eds.), *Writing across Languages: Analysis of L2 Text.* Reading, Mass.: Addison Wesley, pp. 9-21.

_____ (1988), Contrastive Rhetoric and Second Language Learning: Notes Toward a Theory of Contrastive Rhetoric". In Purves, Alan C. (ed.), *Writing across Language and Cultures: Issues in Contrastive Rhetoric.* California: Sage Publications Incorporated, pp. 275-304.

Kadar-Fulop, Judit (1988), "Culture, Writing and Curriculum". In Purves, Alan C. (ed.), *Writing across Language and Cultures: Issues in Contrastive Rhetoric.* California: Sage Publications Incorporated, pp. 25-50.

Kegley, Pamela H. (1986), "The Effect of Mode-Discourse on Student Writing Performance: Implications for Policy". *Educational Evaluation and Policy Analysis,* 8:2, pp. 147-154.

Keh, Claudia L. (1990), "Feedback in the Writing Process: A Model and Methods for Implementation". *ELT Journal,* 44:4, pp. 294-304.

_____ (1991), "Teaching Grammar as a Process in the Process of Writing". *English Teaching Forum,* 29:1, pp. 17-21.

Kenning, Marie-Madeleine (1990), "Computer-Assisted Language Learning". *Language Teaching,* April, pp. 67-75.

Kerr, Nancy H. (1992), "Linked Composition Courses, Effects on Student Performance". *Journal of Teaching Writing,* 11:1, pp. 105-18.

Khalil, Aziz (1989), "A Study of Cohesion and Coherence in Arab EFL College Students' Writing". *System,* 17, 3:89, pp. 359-371.

Kharma, Nayef and Hajjaj, Ali (1989), *Errors in English among Arabic Speakers: Analysis and Remedy*. London: Longman Group Limited.

Kiess, Harold, D. annd Bloomquist, Douglas W. (1985), *Psychological Research Methods, A Conceptual Appoach*. New York: Allyn and Bacon Publishers Incorporated.

King, Janet (1986), "Reading in English: Some Early Problems Faced by Arabic-Speakers". In Harper, David (ed.) (1986), *ESP for the University, ELT Documents: 123*. Oxford: Pergamon Press, pp. 157-161.

Kinneavy, James L. (1980), *A Theory of Discourse: The Theory of Discourse*. New York: Norton.

_____ (1983), "A Pluralistic Synthesis of Four Contemporary Models for Teaching Composition". In Freedman, Aviva et. al. (eds.) *Learning to Write: First Language/Second Language: Selected Papers from the 1979 CCTE Conference, Ottawa, Canada*. London: Longman Group Limited, pp. 121-138.

Kintsch, W. (1974), *The Representation of Meaning in Memory*. Hillsdale, N.J.: Lawrence Erlbaum.

Kirsch, Cesa and Roen, Duane H. (eds.) (1990), *A Sense of Audience in Written Communication*. Newbury Park: Sage Publications.

Klein, Eberhard (1991), "Elements of a Text Type-Oriented Model of Second Language Reading Within a Communicative EFL/ESL Syllabus". *Reading*, 25:3, pp. 29-33.

Koch, Barbara J. (1983), "Presentation as Proof: The Language of Arabic Rhetoric". *Anthropological Linguistics*, 25:1, pp. 47-60.

Kopperschmidt, Josef (1985), "An Analysis of Argumentation". In Van Dijk, Teun A. (ed.), *Handbook of Discourse Analysis: Dimensions of Discourse*. London: Academic Press, pp. 159-168.

Krashen, Stephen D. (1978), "How Important is Instruction". *ELT Journal*. 33:4, pp. 257-261.

_____ (1981), *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon Press.

_____ (1982), *Principles and Practice in Second Language Acquisition*. Oxford: Pergamon Press.

_____ (1984), *Writing: Research, Theory, and Applications*. Oxford: Pergamon.

Kress, Gunther (1982), *Learning to Write*. London: Routlege and Kegan Paul.
_____ (1991), "Two Kinds of Power: Gunther Kress on Genre". *The English Magazine*, 24. pp.4-7.

_____ (1994), *Learning to Write*. London: Routlege and Kegan Paul.

Kroll, Barbara (1979), "A Survey of Writing Needs of Foreign and American College Freshman". *ELT Journal*, 33:3, pp. 219-227.

_____ (1981), *Exploring Speaking-Writing Relationships: Connections and Contrasts*. Illinois: National Council of Teachers of English.

_____ (ed.) (1990a), *Second Language Writing: Research Insights for the Classroom*. Cambridge: Cambridge University Press.

Kroll, Barbara (1990b), "What Does Time Buy? ESL Student Performance on Home Versus Class Compositions". In Kroll, Barbara (ed.), *Second Language Writing Research Insights for the Composition*. Cambridge: Cambridge University Press, pp. 140-154.

Kuhn, D. (1991), *The Skills of Argument*. Cambridge: Cambridge University Press.

Kusel, Paul (1992), "A Review of Genre Analysis: English in Academic and Research Settings". *ELT Journal*, 46:4, pp. 378-380.

Lado, Robert (1957), *Linguistics across Cultures*. Ann Arbor: University of Michigan Press.

Langan, John (1991), *English Writing Skills with Readings*. New York: McGraw-Hill, Incorporated.

Larsen-Freeman, Diane (1980), *Discourse Analysis in Second Language Research*. Rowley, MA.: Newbury House Publishers, Incorporated.

_____ (1991), "Second Language Acquisition Research: Staking Out the Territory". *TESOL Quarterly*. 25:2, pp. 315-350.

Larsen-Freeman, Diane and Long, Michael H. (1991), *Second Language Acquisition Research*. London: Longman Group Limited.

Lautamatti, Liisa (1987), "Observations on the Development of the Topic of Simplified Discourse". In Connor, Ulla and Kaplan, Robert B. (eds.), *Writing across Languages: Analysis of L2 Text*. Reading, Mass.: Addison Wesley, pp. 87-114.

_____ (1990), "Coherence in Spoken and Written Discourse". In Connor, Ulla and Johns, Ann M. (eds.), *Coherence in Writing: Research and Pedagogical Perspectives*. Alexandria, Virginia: TESOL, Incorporated.

Lawrence, Mary S. (1972), *Writing as a Thinking Process*. Ann Arbor: The University of Michigan.

Lazaraton, Anne (1992), "Linking Ideas with 'and' in Spoken and Written Discourse". *IRAL*, 20:3, pp. 191-206.

Leavitt-Shanklin, Nancy Katherine (1981), "Relating Reading and Writing: Developing a Transactional Theory of the Writing Process". *Monograph in Language and Reading Studies*. Indiana: Indiana University, School of Education.

Lebanese American University (formerly Beirut University College) (1995), *Academic Statistics: Beirut and Byblos Campuses, 1994-95*. Unpublished Statistics, Admissions Office.

Lebanese American University (formerly Beirut University College) (1992-93), *Academic Catalogue*. Beirut: Rami al-Khal Printers.

Lebanese American University (formerly Beirut University College) (1996), *Academic Catalogue*. Beirut: Focus Press.

Lee, D. (1992), *Competing Discourses: Perspective and Idealogy in Language*. London: Longman Group Limited.

Leech, Geoffrey and Svartvik, Jan (1975), *A Communicative Grammar of English*. London: Longman Group Limited.

Leeds, Bruce (ed.) (1996), *Writing in a Second Language: Insights from First and Second Language Teaching and Research*. London: Longman Group Limited.

Leki Ilona (1991), "Twenty-Five Years of Contrastive Rhetoric: Text Analysis and Writing Pedagogies". *TESOL Quarterly*, 25:1, pp. 123-143.

_____ (1995), "Coping Strategies of ESL Students in Writing Tasks across the Curriculum". *TESOL Quarterly*, 29:2, pp. 235-260.

Leki, Ilona and Carlson, Joan G. (1994), "Students Perceptions of EAP Writing Instruction and Writing Needs across the Disciplines". *TESOL Quarterly*, 28:1, pp.81-101.

Lev, Richard (ed.) (1990), *Oral and Written Communication: Historical Approaches, Vol.4*. Newbury Park, Sage Publications.

Lewis, Michael (1993), *The Lexical Approach*. Hove, England, Language Teaching Publications.

Liebman-Kleine, Jo-Anne (1986), "In Defense of Teaching Process in ESL Composition". *TESOL Quarterly*, 20, pp. 783-788.

_____ (1987), "Teaching and Researching Invention: Using Ethnography in ESL Writing Classes". *ELT Journal*, 41:2, pp. 104-111.

Light, Richard L. et. al. (1987), "English Proficiency and Academic Performance of International Students". *TESOL Quarterly*, 21:2, pp. 251-261.

Littlefair, Alison B. (1989), "Genre and Register: Implications for Reading". In Hunter-Carsch, Morag (ed.), *The Art of Reading*. Oxford: Blackwell, pp. 178-182.

_____ (1991), *Reading All Types of Writing: The Importance of Genre and Register for Reading Development*. Philadelphia: Open University Press.

_____ (1992), "Let's Be Positive About Genre". *Reading*, 26:3, pp. 2-6.

Lloyd-Jones R. (1987), "Tests of Writing Ability". In Tate, G. (ed.), *Teaching Composition: 12 Bibliographical Essays*. Ft. Worth: Texas, Christian University Press, pp. 155-176.

Lonergan, Jack (1991), "A Decade of Development: Educational and Technology and Language Learning". *Language Teaching*, January, pp. 1-10.

Long, Michael, H. (1983), "Does Second Language Instruction Make a Difference? A Review of Research". *TESOL Quarterly*, 17:3, pp. 359-382.

Long, Michael (1988), "Instructed Interlanguage Development". In Beebe, L.M. (ed.) *Issues in Second Language Acquisition: Multiple Perspectives*. New York: Newbury House Publications.

Lurudee, Fuze (1970), *TEFL in the Middle East, A Preliminary Survey*. Cairo: The American University in Cairo Press.

Lynch, Denise (1982), "Easing the Process: A Strategy for Evaluating Compositions". *College Composition and Communication*, 33:3, pp. 310-314.

MacLean, Joan (1975), *English in Basic Medical Science*. London: Oxford University Press.

Maimon, Elaine P and Nodine, Barbara F. (1978), "Measuring Syntactic Growth: Errors nd Expectations in Sentence Combining Practice with College Freshmen". *Research in the Teaching of English*, 12, pp. 233-244.

Mangelsdorf, Kate (1989), "Parallels betwen Speaking and Writing in Second Language Acquisition". In Johnson, Donna M. and Roen, Duane H. (eds.) (1989), *Richness in Writing*. London: Longman Group Limited, pp. 134-145.

_____ (1992), "Peer Reviews in the ESL Composition Classroom, What Do the Students Think?" *ELT Journal*, 46:3, pp. 274-284.

Mangelsdorf, Kate et. al. (1990), "ESL Students' Use of Audience". In Kirsch, Cesa and Roen, Duane H. (eds.) (1990), *A Sense of Audience in Written Communication*. Newbury Park: Sage Publications, pp. 231-247.

Markels, Robin B. (1983), "Cohesion Paradigms in Paragraphs". *College English*, 45, pp. 450-464.

_____ (1984), *A New Perspective on Cohesion in Expository Paragraphs*. Illinois: Southern Illinois University Press.

Mattar, O.M.S. (1978), *A Study of the Written English of Some Egyptian Students in the University of Alexandria with Suggestions for Improvement in the Teaching of English*. Unpublished Ph.D Thesis, London: Institute of Education.

Martin, J.R. (1993), "Life as a Noun: Arresting the Universe in Science and Humanities". In Halliday, M.A.K. and Martin, J.R. (eds.), *Writing Science: Literacy and Discursive Power*. London: Falmer Press, pp. 221-267.

Mayberry, K. J. and Golden, R.E. (1990), *For Arguments' Sake. A Guide to Writing Effective Arguments.* Glenview, Ill.: Scott, Foresman, Little Brown.

McAllister, Carole and South, Richard (1988), "The Effect of Word Processing on the Quality of Basic Writers' Revisions". *Research in the Teaching of English,* 22:4, pp. 417-427.

McAlpin, Janet (1988), "English Course for First Year Medical Students". In Brumfit, Christopher and Harper, David (eds.) (1986), *ESP for the University, ELT Documents: 123.* Oxford: Pergamon Press, pp. 80-100.

McCarthy, Lucille (1987), "A Stranger in Strange Lands: A College Student Writing across the Curriculum". *Research in the Teaching of English,* 21, pp.233-265.

McCarthy, Michael (1984), "A New Look at Vocabulary in EFL'. *Applied Linguistics,* 5:1, pp. 12-22.

McCarthy, Michael (1991), *Discourse Analysis for Language Teachers.* Cambridge: Cambridge University Press.

_____ (1994), "It, This and That". In Coulthard, Malcolm (ed.,) In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis.* London: Routledge, pp. 266-275.

McCarthy, Michael and Carter, Ronald (1994), *Language as Discourse: Perspectives for Language Teaching.* London: Longman Group Limited.

McCulley, George (1985), "Writing Quality, Coherence, and Cohesion". *Research in the Teaching of English.* 19:3, pp. 269-282.

McDonald, D. (1989), *The Language of Argument.* New York: Harper and Row.

McDonough, Jo (1986), "English for Academic Purposes: A Research Base?" *English for Specific Purposes,* 5:1, pp. 17-25.

McDonough, Steven (1985), "Academic Writing Practice". *ELT Journal,* 39:4, pp. 244-247.

McLaughlin, Barry (1987), *Theories of Second-Language Learning.* London: Edward Arnold.

Meijs, Willem (1996), "Linguistic Corpora and Lexicography". *Annual Review of Applied Linguistics,* 16, pp. 99-114.

Mei-Yun, Yue (1993), "Cohesion in the Teaching of EFL Reading". *ET Forum,* 31:1, pp. 12-15.

Mendonca, Cassia and Johnson, Karen E. (1994), "Peer Review Negotiations, Revision Activities in ESL Writing Instruction". *TESOL Quarterly,* 28:4, pp. 745-769.

Middleton, Ron (1990), "Argument, Persuasion and the Ironic Voice". *English in Education* 24:1, pp. 68-76.

Milic, L.T. (1969), *Stylistics on Style*. New York: Charles Scribner's Sons.

Miller, Susan (1982), "How Writers Evaluate Their Own Writing". *College Composition and Communication*, 33:2, pp. 176-183.

Mitchell, Rosamond and Brumfit, Christopher (1989), "Research in Applied Linguistics Relevant to Language Teaching: 1988". *Language Teaching, July*, 145-149.

_____ (1991), "Research in Applied Linguistics Relevant to Language Teaching: 1990". *Language Teaching, July*, pp. 137-141.

Mittan, Robert (1989), "The Peer Review Process: Harnessing Students' Communicative Power". In Johnson, Donna M. and Roen, Duane H. (eds.), *Richness in Writing*. London: Longman   Group Limited.

Moffet, James (1968), *Teaching the Universe of Discourse*. Boston: Houghton Mifflin Company.

Mountford, Alan (1977), *English in Agriculture*. Oxford: Oxford University Press.

Montgomery, M. et. al. (1992), *Ways of Reading: Advanced Reading Skills for Students of English Literature*. London: Routlege.

Mosenthal, P.B. et.al. (1983), *Research on Writing Principles and Methods*. New York: Longman Group Limited.

Mosenthal, P.B. (1985), "Defining the Expository Discourse Continuum; Towards a Taxonomy of Expository Text Types". *Poetics*, 14, pp. 387-414.

Muchiri, Mary et.al. (1995), "Importing Composition". *College Composition and Communication*, 46:2, pp. 175-196.

Mullen, Karen A. (1980), "Evaluating Writing Proficiency in ESL". In Oller, John W. Jr., and Perkins, Kyle, *Research in Language Testing*. Mass.: Newbury House Publishers Incorporated, pp. 160-170.

Murray, Donald M. (1980), "Writing as Process: How Writing Finds Its Own Meaning". In Donovan, T.R. and McClelland, Ben W., *Eight Approaches to Teaching Composition*. Illinois: National Council of teachers of English, pp. 3-20.

Murray, Doald M. and McClelland, Ben W. (1980), *Eight Approaches to Teaching Composition*. Illinois: National Council of teachers of English.

_____ (1991), "All Writing Is Autobiography". *College Composition and Communication*, 42:1, pp. 66-74.

Murray, John P. (1995), "Commentary: The Power of Portfolios". *College Teaching*, 43:3, p. 82.

Myers, Miles (1980), *A Procedure for Writing Assessment and Holistic Scoring*. Urbana, Illinois: National Council of Teachers of English.

Najimy, Norman C. (ed.) (1981), *Measure for Measure: A Guidebook for Evaluating Students' Expository Writing*. Urbana, Illinois: National Council of Teachers of English.

Nold, Ellen W. and Freedman, Sarah W. (1977), "An Analysis of Readers' Responses to Essays". *Research in the Teaching of English*, 11, pp. 164-174.

Nash, Walter (ed.) (1990), *The Writing Scholar: Studies in Academic Discourse, Vol.3*. Newbury Park, California: Sage Publications.

Nattinger, James R. and De Carrico, S. (1992), *Lexical Phrases and Language Teaching*. Oxford: Oxford University Press.

Nelson, G.L. and Murphy, J.M. (1992), "Writing Groups and the Less Proficient ESL Student". *TESOL Journal*, 2:2, pp. 23-26.

Neuner, Jerome L. (1987), "Cohesive Ties and Chains in Good and Poor Freshman Essays". *Research in the Teaching of English*, 21:1, pp. 92-105.

Nickel, Gerhard (1989), "Some Controversies in Present-Day Error Analysis: Contrastive Versus Non-Contrastive Errors". IRAL, 27:4, pp. 293-305.

Nofsinger, R.E. (1991), *Everyday Conversation*. Newbury Park: Sage Publications.

Norment, Nathaniel, Jr. (1982), "Contrastive Analyses of Organizational Structures and Cohesive Elements in English, Spanish (ESL) and Chinese (ESL) Students' Writing in Narrative and Expository Modes". *Education Resource Information Center (ERIC)*..

Norrick, Neal (1987), "Functions of Repetition in Conversation". *Text*, 7, pp. 245-264.

Norton, Linda S. (1990), "Essay-Writing: What Really Counts?" *Higher Education*, 20:4, pp. 411-442.

Norusis, Marja J. (1993), *SPSS for Windows Base System User's Guide*. Release 6.0. Chicago: SPSS Incorporated.

Nunan, David (1992), *Research Methods in Language Learning*. Cambridge: Cambridge University Press.

_____ (1993), *Introducing Discourse Analysis*. London: Penguin Books Limited.

_____ (1995), "The Write Stuff: Achieving Coherence in Scientific Writing". In Bruthiaux, P. et. al. (eds.), *Explorations in English for Professional Communication*. Hong Kong: City University of Hong Kong, pp. 99-115.

Odell, L (1980), "The Process of Writing and the Process of Learning". *College Composition and Communication*, 3:1, pp. 42-50.

Odlin, Terence (1989), *Language Transfer: Cross-Linguistic Influence in Language Learning*. Cambridge: Cambridge University Press.

Olaofe, I.A. (1992), "A Communicative Model for Assessing Second Language Perfomance". *IRAL*, 30:3, pp. 207-222.

Oller, John W. Jr. and Perkins, Kyle (1980), *Research in Language Testing*. Massachusetts, Newbury House Publishers Incorporated.

Olson, David R. (1996), "Language and Literacy: What Writing Does to Language and Mind". *Annual Reviw of Applied Linguistics*, 16, pp. 3-13.

Onaka, Natsumi (1984), "Developing Paragraph Organization Skills". *ET Forum*, 22:3, pp. 14-22.

Oshima, Alice and Hogue, Ann (1991) *Writing Academic English*. New York: Addison-Wesley Publishing Company.

Ostler, Shirley E. (1980), "A Survey of Academic Needs for Advanced ESL". *TESOL Quarterly*, 14:4, pp. 489-502.

_____ (1987), "English in Parallels: A Comparison of English and Arabic Prose". In Connor, Ulla and Kaplan, Robert B. (eds.) (1987), *Writing across Languages: Analysis of L2 Text*. Reading, Mass.: Addison Wesley, pp. 169-185.

Parsons, Gerald (1991), "Cohesion Coherence: Scientific Texts". In Ventola E. (ed.), *Functional and Systemic Linguistics, approaches and Uses*. Berlin: Houton de Gruyter, pp. 415-429.

Peacock, Colin (1986), *Teaching Writing: A Systematic Approach*. Worcester: Billing and Sons Limited.

Pennington, Martha C. (1993), "Computer-Assisted Writing on a Principled Basis: The Case Against Computer-Assisted Text Analysis for Non-Proficient Writers. *Language Learning*, 7:1, pp. 43-59.

Perera, Katharine (1988), *Children's Writing and Reading*. London: Basil Blackwell Limited.

Pere-Woodley, M.P. (1990), "Contrasting Analysis and a Discourse Approach to Writing". *Language Teaching*. July, 3, pp. 143-151.

_____ (1991), "Writing in L1 and L2: Analyzing and Evaluating Learners' Texts". *Language Teaching*, 2, pp. 69-83.

Perkins, Kyle (1983), "On the Use of Composition Scoring Techniques, Objective Measures and Objective Tests to Evaluate ESL Writing Ability". *TESOL Quarterly*, 17:4, pp. 651-671.

Perl, S. (1979), "The Composing Processes of Unskilled College Writers". *Research in the Teaching of English*, 13:4, pp. 317-336.

_____ (1980), "Understanding Composing". *College Composition and Communication*, 31, pp. 363-369.

Peters, Pamela (1986), "Getting the Theme Across: A Study of Dominant Function in the Academic Writing of University Students". In Couture, Barbara (ed.) (1986), *Functional Approaches to Writing: Research Perspectives*. London: Frances Pinter Publishers, pp. 169-185.

Phillips, Deborah (1996), *Longman Preparation Course for the TOEFL Test: Skills and Strategies, Volume A*. New York: Addison Wesley Publishing Company Incorporated.

Phillips, M. (1985), *Aspects of Text Structure: An Investigation of the Lexical Organization of Text"*. Amsterdam: North-Holland.

Pierce, Benny Norton (1991), "TOEFL Test of Written English (TWE) Scoring Guide". *TESOL Quarterly*, 25:1, pp. 159-163.

Piolat, Annie (1991), "Effects of Word Processing on Text Revision". *Language and Education*, 5:4, pp. 255-272.

Porte, Graeme K. (1995), "Writing Wrongs: Copying as a Strategy for Underachieving EFL Writers". *ELT Journal*, 49:2, pp. 144-151.

Potter, Jonathan and Wetherell, Margaret (1987), *Discourse and Social Psychology: Beyond Attitudes and Behavior*. London: Sage Publications.

Praninskas, J. (1972), *American University Word List*. London: Longman Group Limited.

Prodromou, Luke (1995), "The Backwash Effect: From Testing to Teaching". *ELT Journal*, 49:1, pp. 13-25.

Proett, Jackie and Gill, Kent (1986), *The Writing Process in Action*. Urbana: Illinois: NCTE.

Purves, Alan C. (1986), "Rhetorical Communities, the International Student, and Basic Writing". *Journal of Basic Writing*, 5:1, pp. 38-51.

_____ (ed.)(1988), *Writing across Languages and Cultures: Issues in Contrastive Rhetoric*. California: Sage Publications Incorporated.

_____ (1994), "Writing Composition and Instruction". *The International Encyclopedia of Education*. Oxford: Pergamon Press, pp. 6775-6778.

Purves, A.C., Gorman, T.P. and Degenhart, R.E. (1988), *The IEA Study of Written Composition 1: The International Writing Tasks and Scoring Scales*. Oxford: Pergamon Press.

_____ (ed.) (1992a), *Education and Performance in Fourteen Countries: II*. Oxford: Pergamon Press.

_____ (1992b), "Reflections on Research and Assessment in Written Composition". *Research in the Teaching of English*, 26:1, pp. 108-122.

Quellmalz, Edys S. et. al. (1982), "Effects of Discourse and Response Mode on the Measurement of Writing Competence". *Journal of Educational Measurement*, 19:4, pp. 241-258.

Quirk R., Greenbaum, S., Leech, G., and Svartvik, J. (1985), *A Comprehensive Grammar of the English Language*. London: Longman Group Limited.

Ragan, Per H. (1989), "Applying Functional Grmmar to Teaching the Writing of ESL". *WORD*, 40:1-2, pp. 117-127.

Raimes, Ann (1980), "Composition: Controlled by the Teacher, Free for the Student". In Croft, Kenneth, *Readings on English as a Second Language*. Cambridge, Mass.: Winthrop Publishers, Incorporated, pp. 386-398.

_____ (1985), "What Unskilled ESL Students Do As They Write: A Classroom Study of Composing". *TESOL Quarterly*, 19:2, pp. 229-258.

_____ (1987), "Language Proficiency, Writing Ability and Composing Strategies: A Study of ESL College Student Writers". *Language Learning*, 37:3, pp. 459-468.

_____ (1990), "The TOEFL Test of Written English: Causes for Concern". *TESOL Quaterly*, 24:3, pp. 427-441.

_____ (1991), "Out of the Woods" Emerging Traditions in the Teching of Writing". *TESOL Quarterly*, 25:3, pp. 407-427.

Raymond, James C. (1982), "What We Don't Know About the Evaluation of Writing". *College Composition and Communication*, 33:4, pp. 399-403.

Read, John (1990), "Providing Relevant Content in an EAP Writing Test". *English for Specific Purposes*, 9, pp. 109-121.

Reid, Joy M. (1989), "English as a Second Language Composition in Higher Education: The Expectations of the Academic Audience". In Johnson, Donna M. and Roen, Duane H. (eds.) (1989), *Richness in Writing*. London: Longman Group Limited.

_____ (1990), "Responding to Different Topic Types: A Quantitative Analysis from a Contrastive Rhetoric Perspective". In Kroll, Barbara (1990) *Second Language Writing: Research Insights for the Classroom*. Cambridge: Cambridge University Press, pp.191-210.

_____ (1993), *Teaching ESL Writing*. New Jersey: Prentice-Hall.

_____ (1994), "Responding to 'ESL Students' Texts: The Myths of Appropriation". *TESOL Quarterly*, 28:2, pp. 273-292.

Rinvolucri, Mario (1983), "Writing to Your Students". *ELT Journal*, 37:1, pp. 16-21.

_____ (1995), "Language Students as Letter Writers". *ELT Journal*, 49:2, pp. 152-159.

Rizzardi, Maria Cecilia (1990), "Teaching Writing Skills: From Aims to Assessment". *Modern English Teacher*, 17:1-2, pp. 33-41.

Robb, Thomas, Ross, Steven and Shortreed, Ian (1986), "Salience and its Effect on EFL Writing Quality". *TESOL Quarterly*, 20:1, pp. 83-95.

Robinson, Pauline C. (ed.) (1988), *Academic Writing: Process and Product, ELT Documents 129.* Reading: Modern English Publications and The British Council.

Robinett, Betty Wallace and Schachter, Jacquelyn (1986), *Second Language Learning Contrastive Analysis, Error Analysis and Related Aspects.* Ann Arbor: The University of Michigan Press.

Rodgers, Denis (1974), "Which Connectives? Signals to Enhance Comprehension". *Journal of Reading.* 17:6, pp. 462-466.

Roen, Duane H. (1989), "Developing Effective Assignments for Second Language Writers". In Johnson, Donna M. and Roen, Duane H. (eds.) (1989), *Richness in Writing.* London: Longman Group Limited.

Richardson, Ian M. (1989), "Discourse Structure and Comprehension". *System.* 17:3, pp. 339-345.

Richerson, Virginia (1992), "The Relationship between Scores on a Diagnostic Writing Skills Test and Success in a Basic Business Course". *Bulletin of the Association for Business Communication*, 55:3, pp. 102-107.

Rivers, Wilga M. (1981), *Teaching Foreign-Language Skills.* Chicago: The University of Chicago Press.

Ruth, L. and Murphy, S. (1988), *Designing Writing Tasks for the Assessment of Writing.* Norwood, N.J.: Ablex.

Sa'Addedin, A.M. and Akram, Mohammed (1989), "Text Development and Arabic-English Negative Interference". *Applied Linguistics*, 10:1, pp. 36-51.

_____ (1991), "Writing Across Language Communities: The Structure of Arabic Text". In Adams, P. et. al. (eds.), *Socio-Cultural Issues in English for Academic Purposes,* 1:2, London: MacMillian Publications Limited, pp. 52-73.

Samraj, Betty T.R. (1989), "Exploring Current Issues in Genre Theory". *Word.* 40:1-2, pp. 189-200.

Sampson, Gloria Paulik (1981), "A Functional Approach to Teaching Writing". *English Teaching Forum,* July, pp. 165-168.

Santos, Terry (1988), " Professors' Reactions to the Academic Writing of Non-native Speaking Students". *TESOL Quarterly,* 22:1, pp. 69-90.

465

Scarcella, Robin (1984), "How Writers Orient Their Readers in Expository Essays: A Comparative Study of Native and Non-Native English Writers". *TESOL Quarterly*, 18:4, pp. 671-688.

Schachter, Jacquelyn and Celce-Murcia, Marianne (1980), "Some Reservations Concerning Error Analysis". In Croft, Kenneth (1980), *Readings on English as a Second Language*. Cambridge, Mass.: Winthrop Publishers, Incorporated, pp. 120-131.

Schleppegrell, Mary J. (1996), "Conjunction in Spoken English and ESL Writing". *Applied Linguistics*, 26, pp. 271-285.

Schnadter, Herbert (1991), "Is the Error Index a Reliable Factor in the Evaluation of Foreign Language Performance? Towards a Unified Correction Technique in the French Department". *Language Teaching, Abstract*, p.170.

Scott, Virginia Mitchell (1996), *Rethinking Foreign Language Writing*. Boston, Mass.: Heinle & Heinle Publishers.

Scovel, Thomas (1988), "Multiple Perspectives Make Singular Teaching". In Beebe, Leslie M. (ed.) (1988), *Issues in Second Language Acquisition-Multiple Perspectives*. New York: Newbury House Publishers, pp. 169-190.

Seliger, Herbert W. and Shohamy, Elena (1995), *Second Language Research Methods*. Oxford: Oxford University Press.

Serriyeh, Hussein (1989), *Lebanon: Dimensions of Conflict, Adelphi Papers 243*. Oxford: Nuffield Press Limited.

Shakir, Abdallah (1991), "Coherence in EFL Student-Written Texts: Two Perspectives". *Foreign Language Annals*, 24:5, pp. 399-411.

Shalhoub, Nina (1981), *The Use of Connectives in English Writing by Second Language Learners*. Unpublished M.A. Thesis, American University of Beirut, Lebanon.

Shaughnessy, Mina P. (1977a), *Errors and Expectations: A Guide for the Teacher of Basic Writing*. New York: Oxford University Press.

_____ (1977b), "Needed Research on Writing". *College Composition and Communication*, 28, p.317-320.

Sheerin, Susan (1991), "Self-Access". *Language Teaching*. July, pp. 143-157.

Shih, May (1986), "Content Based Approaches to Teaching Academic Writing". *TESOL Quarterly*, 20:4, pp. 617-648.

Shiro, Martha (1994), "Inferences in Discourse Comprehension". In In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis*. London: Routledge, pp. 167-178.

Shohamy, Eliana (1995), "Performance Assessment in Language Testing". *Annual Review of Applied Linguistics*, 15, pp. 188-211.

466

Shu-min, Kang (1993), "A Practical Approach to Teaching Expository Writing to ESP Students. *ET Forum*, 31:2, pp. 32-33.

Siegel, Andrew (1990), "Multiple Tests: Some Practical Considerations". *TESOL Quarterly*, 24:4, pp. 773-775.

Siegel, Muffy E. (1982), "Responses to Student Writing from New Composition Faculty". *College Composition and Communication*, 33:3, pp. 302-309.

Silva, Tony (1990), "Second language Composition Instruction: Developments, Issues, and Directions in ESL". In Kroll, Barbara (ed.), *Second Language Writing: Research Insights for the Classroom*, Cambridge: Cambridge University Press, pp. 11-36.

Silva, Tony (1993), "Toward an Understanding of the Distinct Nature of L2 Writing: The ESL Research and Its Implications". *TESOL Quarterly*, 27:4, pp. 657-677.

Sinclair, J. McH. (1966), "Beginning the Study of Lexis". In Bazell, C.E. et. al. *In Memory of J.R. Firth*. London: Longman Group Limited.

_____ (1994), "Trust the Text". In In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis*. London: Routledge, pp12-25.

Sinclair, J. McH. and Brazil, D. (1982), *Teacher Talk*. Oxford: Oxford University Press.

Sinclair, J. McH. and Coulthard, R.M. (1975), *Towards an Analysis of Discourse: The English Used by Teachers and Pupils*. Oxford: Oxford University Press.

Sinclair, John McH. and Renouf, Antoinette (1995), "A Lexical Syllabus for Language Learning". In Carter, Ronald and McCarthy, Michael (eds.), *Vocabulary and Language Teaching*. London: Longman Group Limited, pp.140-160.

Sindermann, Gerda and Horsella, Maria (1989), "Strategy Markers in Writing". *Applied Linguistics*, 10:4, pp. 439-446.

Sitler, Helen Collins (1993), "What College Writing Instructors Expect and Why You Should Join the Resistance". *English Journal*, 82:6, pp. 21-25.

Smagorinsky, P (1992), "How Reading Model Essays Affects Writers". In Irwin, J.W. and Doyle, M. (eds.), *Reading/Writing Connections: Learning from Research*. Newark, DE: International Reading Association.

Smith, Frank (1988), *Writing and the Writer*. London: Heinemann Educational Books.

Smith, R. and Frawley, W. (1983), "Conjunctive Cohesion in Four English Genres". *Text*, 3-4, pp. 347-373.

Smith, Judith and Elkins, John (1984), "Comprehending Cohesion". *Reading*, 18:3, pp. 153-159.

Smith, Larry E. (1987), *Discourse across Cultures: Strategies in World Englishes*. New York: Prentice Hall.

Smith, Louise Z. (1988), "Opinion Why English Departments Should 'House' Writing across the Curriculum". *College English*, 50:4, pp. 390-395.

Smith, M. and Swan, M. (eds.), (1986), *Learner English*. Cambridge: Cambridge University Press.

Smith, William et. al. (1985), "Some Effects of Varying the Structure of a Topic on College Students' Writing". *Written Communiction*, 2:1, pp. 73-88.

Smith-Lock, Karen M. (1991), "Errors of Inflection in the Writing of Normal and Poor Readers". *Language and Speech*, 34:4, pp. 341-350.

Snyder, Ilana (1992), "Writing with Word Processors: An Effective Way to Develop Students' Argumentative Writing Skills". *English in Education*, 26:2, pp. 35-45.

_____ (1993), "Writing with Word Processors: A Research Overview". *Educational Research*, 35:1, pp. 49-68.

Sommers, Nancy (1982), "Responding to Student Writing". *College Composition and Communication*, 33:2, pp. 148-156.

Sorenson, Sharon (1988), *Webster's New World Student Writing Handbook*. New York: Websters New World.

Spack, Ruth (1988a), "Initiating ESL Students into the Academic Discourse Community: How Far Should We Go?" *TESOL Quarterly*, 22:1, pp. 29-51.

_____ (1988b), "The Author Responds to Johns...". *TESOL Quarterly*, 22:4, pp. 707-708.

Spellmeyer, Kurt (1989), "A common Ground: The Essay in the Academy". *College English*. 51.3, pp. 262-277.

Sridhar, S.N. (1980), "Contrastive Analysis, Error Analysis and Interlanguage". In Croft, Kenneth (ed.) (1980), *Readings on English as a Second Language*. Cambridge, Mass.: Winthrop Publishers, Incorporated, pp. 91-119.

Stalker, Jacqueline W. and Stalker, James C. (1988), "A Comparison of Pragmatic Accommodation of Non-native and Native Speakers in Written English". *World Englishes*, 7:2, pp. 119-128.

_____ (1989), "The Acquisition of Rhetorical Strategies in Introductory Paragraphs in Written Academic English: A Comparison of NNSs and NS". In Gass, S. Madden, C and Selinker, L (eds.), *Variation in Second Language Acquisition: Discourse and Pragmatics*. Clevedon: Multilingual Matters, pp. 144-152.

Stansfield, C. (1986), "A History of the Test of Written English". *Language Testing*, 3, pp. 224-234.

Stenstrom, A.B. (1994), *An Introduction to Spoken Interaction*. London: Longman Group Limited.

Stern, A. (1976), "When Is a Paragraph?" *College Composition and Communication.* 27:3, pp. 253-257.

Steffensen, Margaret S. (1988), "Changes in Cohesion in the Recall of Native and Foreign Texts". In Carrell, P. et. al. (eds.), *Interactive Approaches to Second Language Reading.* Cambridge: Cambridge University Press, pp. 140-151.

Stiggins, Richard J. (1982), "A Comparison of Direct and Indirect Writing Assessment Methods". *Research in the Teaching of English, 16:2, pp. 101-114.*

Stotsky, Sandra (1983), "Types of Lexical Cohesion in Expository Writing: Implications for Developing the Vocabulary of Academic Discourse". *College Composition and Communication,* 34:4, pp. 430-446.

Stubbs, Michael (1980), *Language and Literacy.* London: Routledge and Kegan Paul.

_____ (1983), *Discourse Analysis: The Sociolinguistic Analysis of Natural Language.* Oxford: Blackwell.

_____ (1996), *Text and Corpus Analysis.* Oxford: Blackwell

Swales, John (1984), "A Review of ESP in the Arab World 1977-1983 - Trends, Developments and Retrenchments". In Swales, John M. and Mustafa, H. (eds.), *English for Specific Purposes in the Arab World.* Birmingham, UK.: Language Studies Unit, University of Aston, pp. 9-21.

_____ (1990a), *Genre Analysis: English in Academic and Research Settings.* Cambridge: Cambridge University Press.

_____ (1990b), "Non-Native Speaker Graduate Engineering Students and Their Introductions: Global Coherence and Local Management". In Connor, Ulla and Johns, Ann M. (eds.), *Coherence in Writing: Research and Pedagogical Perspectives.* Alexandria, Virginia: TESOL, Incorporated, pp. 189-207.

_____ (1993), "The English Language and its Teachers: Thoughts Past, Present and Future". *English Language Teaching Journal,* 47:4, pp. 283-291.

Swales, John M. and Feak, Christine B. (1994), *Academic Writing for Graduate Students: Essential Tasks and Skills.* Ann Arbor: The University of Michigan Press.

Swales, John M. and Mustafa, H. (eds.) (1984), *English for Specific Purposes in the Arab World.* Birmingham, UK.: Language Studies Unit, University of Aston.

Sweedler-Brown, Carol O. (1992), "The Effect of Training on the Appearance Bias of Holistic Essay Graders". *Journal of Research and Development in Education".* 26:1, pp. 24-29.

_____ (1993), "ESL Essay Evaluation: The Influence of Sentence-level and Rhetorical Features". *Journal of Second Language Writing,* 2:1, pp. 3-17.

Tadros, Angele (1994), "Predictive Categories in Expository Text". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis*. London: Routledge, pp. 69-82.

Takashima, Hideyuki (1987), "To What Extent are Non-Native Speakers Qualified to Correct Free Composition? - A Case Study". *British Journal of Language Teaching*, 25:1, pp. 43-48.

Tannacito, Dan J. (1995) *A Guide to Writing in English as a Second or Foreign Language: An Annotated Bibliography of Research and Pedagogy*. Virginia: TESOL. Incorporated.

Tannen, Deborah (ed.) (1984), *Coherence in Spoken and Written Discourse*. Vol.XII. New Jersey: Ablex Publishing Corporation.

_____ (1989), *Talking Voices*. Cambridge: Cambridge University Press

Taylor, Barry P. (1980), "Teaching Composition Skills to Low Level ESL Students". In Croft, Kenneth (1980), *Readings on English as a Second Language: For Teachers and Teacher Trainers*. Cambridge, Mass.: Winthrop Publishers, Incorporated, pp. 367-385.

Taylor, Gordon and Tingguang, Chen (1991), "Linguistic, Cultural, and Subcultural Issues in Contrastive Discourse Analysis: Anglo-American and Chinese Scientific Text". *Applied Linguistics*, 12:3, pp. 319-335.

Thorndike, E.L. (1944), *A Teacher's Book of the 30,000 Words*. New York: Teachers' College, Columbia University.

Taylor, Barry P. (1980), "Teaching Composition Skills to Low Level ESL Students". In Croft, Kenneth (1980), *Readings on English as a Second Language*. Cambridge, Mass.: Winthrop Publishers, Incorporated.

Tedick, Diane J. (1990), "ESL Writing Assessment: Subject Matter Knowledge and Its Impact on Performance". *English for Specific Purposes*, 9, pp. 123-143.

Thiede-Gonzo, Susan (1983), "Sentence Combining: An Approach to Teaching Writing That Works". *ET Forum*, July, pp. 169-173.

Thompson-Panos, Karyn and Thomas-Ruzic (1983), "The Least You Should Know About Arabic for the ESL Writer Instructor". *TESOL Quarterly*, 17:4, pp. 609-623.

Tibbetts, A.M. and Tibbetts, Charlene (1991), *Strategies of Rhetoric with Handbook*. New York: Harper-Collins Publishers Incorporated.

Tierney, Robert J. and Mosenthal, James H. (1983), "Cohesion and Textual Coherence". *Research in the Teaching of English*, 17:3, pp. 215-229.

Tomlinson, Brian (1983), "An Approach to the Teaching of Continuous Writing in ESL Classes". *ELT Journal*, 37:1, pp. 7-15.

Torrance, M., Thomas, G.V., and Robinson, E.J. (1993), "Training in Thesis Writing: An Evaluation of Three Conceptual Orientations". *British Journal of Educational Psychology*, 63, pp. 170-184.

Tomori, S.H. (1971), *The Teaching of Composition Writing*. London: Heinemann Educational Books.

Tsui, A.B.M. (1994), *English Conversation*. Oxford: Oxford University Press.

Tyler, Andrea (1994), "The Role of Repetition in Perception of Discourse Coherence". *Journal of Pragmatics*, 21, pp. 671-688.

Upshur, John A. and Turner, Carolyn E. (1995), "Constructing Rating Scales for Second Language Tests". *ELT Journal*, 49:1, pp. 3-12.

Van Dijk, Teun A. (ed.) (1985), *Handbook of Discourse Analysis*,Vol.2. London: Academic Press Incorporated.

_____ (ed.) (1997a), *Discourse as Structure and Process: Discourse Studies, a Multidisciplinary Introduction*. Vol.1, London: Sage Publications.

_____ (ed.) (1997b), *Discourse as Social Interaction: Discourse Studies, a Multidisciplinary Introduction*. Vol. 2, London: Sage Publications.

Van Dijk, Teun A. and Kintsch, Walter (1983), *Strategies of Discourse Comprehension*. Florida: Academic Press Incorporated.

Van Peer, Willie (1989), "The Invisible Textbook: Writing as a Cultural Practice". In de Castell, S, Luke A., and Luke, C (eds.), *Language, Authority and Criticism, Readings into the School Textbook*. London: Falmer, pp. 123-132.

_____ (1990), "Writing as an Institutional Practice". In Nash, Walter (ed.) (1990), *The Writing Scholar: Studies in Academic Discourse, Vol.3*. Newbury Park, California: Sage Publications, pp. 192-204.

Ventola, Eiga (1989), "Problems of Modelling and Applied Issues within the Framework of Genre". *Word*, 40:1-2, pp. 129-161.

Vincent, Susan (1990), "Motivating the Advanced Learner in Developing Writing Skills: A Project". *ELT Journal*, 44:4, pp. 272-278.

Vygotsky, L.S. (1962), *Thought and Language*. London: John Wiley and Sons.

Walker, Carolyn (1992), "Teacher Dominance in the Writing Conference". *Journal of Writing*, 7:1, pp. 65-87.

Wardhaugh, R. (1985), *How Conversation Works*. Oxford: Basil Blackwell.

Weigle, Sara Cushing (1994), "Effects of Training on Raters of ESL Compositions". *Language Testing*, 11:2, pp. 197-223.

Weinberg, Steve (1993) "Overcoming Skepticism about 'Writing across the Curriculum'". *The Chronicle of Higher Education*, June 16, pp. B2-B3.

Weir, Cyril (1983), *Identifying the Language Problems of Overseas Students in Tertiary Education in the U.K.* Unpublished Doctoral Dissertation, University of London, England.

_____ (1988) "Academic Writing - Can We Please All the People All the Time?" In Robinson, Pauline C. (ed.), *Academic Writing: Process and Product, ELT Documents 129.* Reading: Modern English Publications and The British Council, pp.17-34.

_____ (1990), *Communicative Language Testing.* London: Prentice-Hall.

Weissberg, Robert C. (1984), "Given and New: Paragraph Development Models from Scientific English". *TESOL Quarterly*, 18:3, pp. 485-500.

Werner, W. (1989), "Models and the Teaching of Technical Writing". *Journal of Technical Writing and Communication*, 19:1, pp. 69-81.

West, M. (1953), *General Service List of English Words.* London: Longman Group Limited.

White, Edward M. (1994), *Teaching and Assessing Writing: Recent Advances in Understanding, Evaluating, and Improving Student Performance.* San Francisco, Jossey-Bass Publishers.

White, Ronald V. (1988a), "Academic Writing: Process and Product". In Robinson, Pauline C. (ed.), *Academic Writing: Process and Product, ELT Documents 129.* Reading: Modern English Publications and The British Council, pp.4-16.

_____ (1988b), *Teaching Writing Skills.* London: Longman Group Limited.

Widdowson, H.G. (1978), *Teaching Language as Communication.* Oxford: Oxford University Press.

Wikborg, Eleanor (1990), "Types of Coherence Breaks in Swedish Student Writing: Misleading Paragraph Division". In Connor, Ulla and Johns, Ann M. (eds.), *Research and Pedagogical Perspectives.* Alexandria, Virginia: TESOL, Incorporated, pp. 133-149.

Wilkinson, Andrew (1990), "Argument as a Primary Act of Mind". *English in Eduation* 24:1, pp. 10-21.

Williams, M.P. (1984), "A Problem of Cohesion". In Swales, J and Mustafa, H. (eds.) *English for Specific Purposes in the Arab World.* Birmingham, UK: Language Studies Unit, University of Aston, pp. 118-128.

Winter, E.O. (1971), "Connection in Science Material - A Proposition about the Semantics of Clause Relations". *CILT Reports and Papers, 7*, pp. 41-52.

Winter, E.O. (1979), "Replacement as a Fundamental Function of the Sentence in Context", *Forum Linguisticum,* 4:2, pp. 95-133.

_____ (1994), "Clause Relations a Information Structure: Two Basic Text Structures in English". In Coulthard, Malcolm (ed.), *Advances in Written Text Analysis.* London: Routledge, pp. 46-68.

Witte, Stephen (1983), "The Relilability of Mean T-Unit Length: Some Questions for Research in Written Composition". In Freedman, Aviva et. al. (eds.) , *Learning to Write: First Language/Second Language: Selected Papers from the 1979 CCTE Conference.* Longman: Longman Group Limited, pp. 171-177.

Witte, Stephen P. and Cherry, Roger (1986), "Writing Processes and Written Products". In Cooper, Charles and Greenbaum, Sidney, *Studying Writing: Linguistic Approaches Vol.1.* Newbury Park: Sage Publications, pp. 112-153.

Witte, Stephen and Faigley, Lester (1981), "Coherence, Cohesion and Writing Quality". *College Composition and Communication, 32,* pp. 189-204.

Xuelan, Fang and Kennedy, Graeme (1992), "Expressing Causation in Written English". *RELC Journal (Singapore), 23:1,* pp. 62-80.

Yau, Margaret S.S. (1991), "The Role of Language Factors in Second Language Writing". In Malare, L.M. (ed.), *Language, Culture and Cognition.* Philadelphia: Multilingual Matters, pp. 266-283.

Yazigi, Amal Jamil (1992), *Schema Theory and Learning to Read in a Second language.* Unpublished Ph.D. Thesis, University of Leicester, England.

Yazigi, Rula J. (1991), *Social and Psychological Factors in Learning English as a Foreign Language in Lebanon.* Unpublished Ph.D. Thesis, University of Leicester, England.

Yang, Agnes W. (1989), "Cohesive Chains and Writing Quality". *WORD, 40:1-2,* pp. 235-254.

Yde, Philip and Spoelders, Marc (1985), "Text Cohesion: An Exploratory Study with Beginning Writers". *Applied Psycholinguistics, 6,* pp. 407-416.

Youmans, Gilbert (1991), "A New Tool for Discourse Analysis: The Vocabulary-Management Profile". *Language, 67:4,* pp. 763-789.

Young, George M. (1989), "Speech and Writing: The Development of a Model with a Functional Sentence Perspective". In Hunter-Carsch, Morag C., *The Art of Reading,* Oxford: Blackwell, pp. 171-177.

Zamel, Vivian (1982), "Writing: The Process of Discovering Meaning". *TESOL Quarterly,* 16:2, pp. 195-209.

_____ (1983), "The Composing Processes of Advanced ESL Students: Six Case Studies". *TESOL Quarterly,* 17:2, pp. 165-187.

_____ (1987), "Recent Research on Writing Pedagogy". *TESOL Quarterly,* 21:4, pp. 697-715.

_____ (1992), "Writing One's Way into Reading". *TESOL Quarterly,* 26:3, pp. 463-485.

Zebroski, J.T. (1986), "The Uses of Theory: A Vygotskian Approach to Composition". *The Writing Instructor,* 5 (Winter), pp. 57-67.

Zughoul, Muhammad R. and Husain, Riad F. (1985), "English for Higher Education in the Arab World - A Case Study of Needs Analysis at Yarmouk University". *The ESP Journal,* 4, pp. 133-152.