



**A Comparative Study of Discourse Connectors in Argumentative Compositions
Produced by Thai EFL Learners and English-Native Speakers**

Pansa Prommas

**A Thesis Submitted in Partial Fulfillment of the Requirements for the Master
of Arts Degree in Teaching English as an International Language**

Prince of Songkla University

2011

Copyright of Prince of Songkla University

Thesis Title A Comparative Study of Discourse Connectors in
Argumentative Compositions Produced by Thai
EFL Learners and English-Native Speakers
Author Miss Pansa Prommas
Major Program Teaching English as an International Language

Major Advisor:

.....
(Dr. Kemtong Sinwongsuwat)

Examining Committee:

.....Chairperson
(Dr. Compol Swangboonsatic)

.....
(Asst. Prof. Dr. Premin Karavi)

.....
(Dr. Kemtong Sinwongsuwat)

The Graduate School, Prince of Songkla University, has approved this thesis as partial fulfillment of the requirements for the Master of Arts Degree in Teaching English as an International Language.

.....
(Prof. Dr. Amornrat Phongdara)
Dean of Graduate School

ชื่อวิทยานิพนธ์	การวิจัยเชิงเปรียบเทียบ การใช้ดัชนีปริเฉทในงานเขียนเชิงโต้แย้งของผู้เรียน ภาษาอังกฤษเป็นภาษาต่างประเทศและเจ้าของภาษา
ผู้เขียน	นางสาวพรรษา พรหมมาศ
สาขาวิชา	การสอนภาษาอังกฤษเป็นภาษานานาชาติ
ปีการศึกษา	2553

บทคัดย่อ

งานวิจัยเชิงเปรียบเทียบฉบับนี้ ศึกษาการใช้ดัชนีปริเฉทในงานเขียนเชิงโต้แย้งของนักศึกษาไทยที่เรียนภาษาอังกฤษเป็นภาษาต่างประเทศและเจ้าของภาษา โดยมีวัตถุประสงค์หลักประการ คือ (1) เพื่อศึกษาดัชนีปริเฉทที่พบบ่อยในงานเขียน (2) เพื่อศึกษาความเหมือนและความแตกต่างในการใช้ดัชนีปริเฉทของนักศึกษาไทยและเจ้าของภาษา โดยเน้นเปรียบเทียบชนิดของดัชนีปริเฉทที่พบบ่อย หน้าที่และการกระจายของดัชนีปริเฉทในประโยค และ (3) เพื่อศึกษาปัญหาของนักศึกษาไทยในการดัชนีปริเฉท ข้อมูลที่ใช้ในการศึกษา คือเรียงความเชิงโต้แย้งทั้งหมด 44 เรียงความของนักศึกษาไทยชั้นปีที่ 3 วิชาเอกภาษาอังกฤษ คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยทักษิณ วิทยาเขตสงขลา และเรียงความของเจ้าของภาษาซึ่งเป็นนักศึกษามหาวิทยาลัยมิชิแกน โดยดึงมาจาก Louvain Corpus of Native English Essays (LOCNESS) งานวิจัยนี้ใช้กรอบการแบ่งกลุ่มและวิเคราะห์ดัชนีปริเฉทของ ฮัลลีย์และสะซัน (2519) ไบเบอร์ และคณะ (2542) และลาวเวิน (2551) ดัชนีปริเฉทจำนวน 140 ตัว แบ่งออกเป็น 8 กลุ่มตามความหมาย ผลการศึกษาพบว่า ทั้งสองกลุ่มเลือกใช้ดัชนีปริเฉทคล้ายคลึงกัน แต่ทว่าจำนวนครั้งของการเกิดอาจจะแตกต่างกันไป ดัชนีปริเฉทชนิดที่พบบ่อยมากที่สุดในงานเขียนของทั้งสองกลุ่ม คือ and but because และ for example เมื่อเปรียบเทียบหน้าที่ของดัชนีปริเฉทดังกล่าว พบว่าเจ้าของภาษาใช้ and นำหน้าส่วนของข้อความที่มีนัยสัมพันธ์ทางความหมาย 4 แบบ ได้แก่ ข้อความที่มีความสัมพันธ์คล้ายคลึงกัน ข้อความที่แสดงความเป็นเหตุเป็นผล ข้อความที่เกี่ยวข้องกับเวลาหรือลำดับเหตุการณ์ และข้อความที่แสดงความสัมพันธ์เชิงขัดแย้ง นักศึกษาไทยใช้ and ในการเชื่อมการแสดงความสัมพันธ์ 3 แบบแรก และไม่พบการใช้ and ในการสื่อความหมายเชิงขัดแย้งในงานเขียนของนักศึกษาไทย สำหรับดัชนีปริเฉท but ทั้งสองกลุ่มใช้ but เพื่อเชื่อมข้อความที่มีความขัดแย้งของข้อเท็จจริง เชื่อมข้อความที่มีความขัดแย้งทางความคิดเชื่อมข้อความที่มีการยอมรับใน

ข้อขัดแย้งอีกทั้งเชื่อมข้อความเพิ่มเติมที่คล้ายตามกัณฑ์ชนิปริเฉท because ทำหน้าที่ในการแสดงความสัมพันธ์ของข้อความที่เป็นเหตุและผล บ่อยครั้งที่ทั้งสองกลุ่มใช้ for example ในการยกตัวอย่างเพื่อขยายความประโยคข้างหน้า เมื่อพิจารณาการกระจายของคชนิปริเฉทในประโยคพบว่านักศึกษาไทยและเจ้าของภาษาส่วนใหญ่ใช้คชนิปริเฉทแบบกริยาวิเศษณ์มากที่สุดรองลงมาคือ คำเชื่อมประโยคอิสระ และคำเชื่อมประโยคหลักกับรองตามลำดับอย่างไรก็ตามนักศึกษาไทยใช้คชนิปริเฉทแบบกริยาวิเศษณ์ตั้งต้นประโยคเพียงอย่างเดียวในขณะที่เจ้าของภาษาจะใช้คชนิปริเฉททั้งในตำแหน่งต้นกลาง และปลาย นอกจากนี้ งานวิจัยนี้ชี้ให้เห็นว่านักศึกษาไทยยังคงมีปัญหาด้านการใช้คชนิปริเฉทเช่น but และ because เป็นต้น ส่วนหนึ่งเป็นผลมาจากอิทธิพลของภาษาแม่

Thesis Title	A Comparative Study of Discourse Connectors in Argumentative Compositions Produced by Thai EFL Learners and English-Native Speakers
Author	Miss Pansa Prommas
Major Program	Teaching English as an International Language
Academic Year	2010

ABSTRACT

This comparative study investigated the use of discourse connectors (DCs) in argumentative compositions of Thai EFL undergraduates and English-native speakers. It aimed to determine (1) the individual DCs frequently used (2) similarities and differences in the DC use in terms of types, functions, and syntactic distribution, as well as to unveil (3) the Thai learners' problems in the use of DCs. The 44 compositions examined were collected from third-year English major undergraduates in the Faculty of Humanities and Social Sciences at Thaksin University, Songkhla Campus and from English-native students at University of Michigan via the Louvain Corpus of Native English Essays (LOCNESS). Following the taxonomy adapted from Halliday and Hasan (1976), Biber et al. (1999), and Cowan (2008), 140 DCs were classified into eight semantic categories. Findings revealed that both groups of students shared similar characteristics with regard to the individual DCs used but with different degrees of occurrences. Among the wide range of DCs, *and*, *but*, *because*, and *for example* were mostly found in the compositions of the two groups. *And* was the connector deployed by the native speakers to denote four senses; namely, additive, causal, temporal, and adversative. The adversative sense, however, never appeared in the learners' writing. Like the native speakers, *but* was similarly used by the Thai learners to mark contrastive facts, contrastive stances, concession, and addition. *Because* was also used to mark a cause-effect and a reason. And *for example* was used to clarify information previously stated in the form of examples. In terms of syntactic distribution, the Thai learners had a tendency to employ most DCs as conjunctive

adverbials in the clause-initial position, followed respectively by coordinators, and subordinators whereas the native speakers mostly employed the DCs identified intracausally as conjunctive adverbials. Although both groups used these DCs in similar functions, preliminary findings suggested that the Thai learners apparently had difficulties with such DCs as *but* and *because*, part of which can be attributed to the influence of the native language.

ACKNOWLEDGEMENTS

This thesis has been completed because of the assistance of many individuals.

I wish to express my deep gratitude towards my thesis advisor, Dr. Kemtong Sinwongsuwat, for providing me useful guidance, meticulous editing comments, friendly discussions, and warmest encouragement during the thesis completion process.

I am also utterly grateful to Dr. Compol Swangboonsatic and Asst. Prof. Dr. Premin Karavi, thesis examining committee, for devoting their valuable time to give me insightful comments and clarifications on linguistic issues.

I am greatly indebted to all the dedicated teachers both at Thaksin University, Songkhla Campus, and at Prince of Songkla University, Hatyai Campus, who endow me with academic intellect and moral integrity.

I especially want to express my sincerest thanks to my dear friend, Tawan Rattaprasert, for her generosity, sincerity, continuous support, and abiding friendship.

My deepest gratitude goes to my father, Naruepon Prommas; my mother, Ammara Auamlaor; my brother, Naruebase Prommas; my sister, Autchara Prommas; and my fiancé, Sutas Sastasen, for their wholehearted love and unflinching belief in me. They truly are the wind beneath my wings.

Pansa Prommas

CONTENTS

	Page
บทคัดย่อ.....	iii
ABSTRACT	v
ACKNOWLEDGEMENTS	vii
CONTENTS	viii
LIST OF TABLES	xii
LIST OF FIGURES	xiii
CHAPTER 1 INTRODUCTION	1
1.1 Background of the Study.....	1
1.2 Purposes of the Study.....	5
1.3 Research Questions.....	5
1.4 Scope and Limitations of the Study.....	6
1.5 Significance of the Study.....	7
1.6 Definitions of Key Terms.....	7
CHAPTER 2 REVIEW OF LITERATURE AND RELATED RESEARCH	9
2.1 Nature of Writing.....	9
2.2 Cohesion and Coherence.....	11
2.3 Genre of Writing.....	12
2.4 Approaches to the Study of Discourse Connectors.....	13
2.4.1 Information Structuring or Rhetorical Structure Theory.....	13
2.4.2 Contrastive Rhetoric.....	13
2.4.3 Corpus-Based Study.....	14
2.5 Discourse Connectors.....	15
2.5.1 Terminology and Definition of Discourse Connectors.....	15
2.5.2 Semantic-Functional Categories of Discourse Connectors...	17
2.5.2.1 Halliday and Hasan’s Taxonomy.....	18
2.5.2.2 Biber et al.’s Taxonomy.....	19
	viii

CONTENTS (CONTINUED)

	Page
2.5.2.3 Cowan's Taxonomy.....	21
2.5.2.4 Taxonomy Used in This Study.....	22
2.5.3 Syntactic Categories of Discourse Connectors.....	24
2.5.3.1 Coordinators.....	25
2.5.3.2 Subordinators.....	25
2.5.3.3 Conjunctive Adverbials.....	26
2.5.4 Common Discourse Connectors.....	27
2.5.4.1 And.....	27
2.5.4.2 But.....	29
2.5.4.3 Because.....	30
2.6 Related Studies on Discourse Connectors.....	30
CHAPTER 3 METHODOLOGY.....	37
3.1 Research Participants.....	37
3.2 Data Collection Procedure.....	37
3.2.1 Thai EFL Learners' Compositions.....	38
3.2.2 English-Native Speakers' Compositions.....	39
3.3 Data Analysis.....	40
CHAPTER 4 FINDINGS AND DISCUSSION.....	44
4.1 Frequency of Discourse Connectors Used.....	44
4.1.1 Overall Frequency.....	44
4.1.2 Frequency of Individual Discourse Connectors Used in.....	45
NNSW and NSW Corpora	
4.2 Comparison of the Use of Discourse Connectors between.....	48
NNSW and NSW Corpora	
4.2.1 Semantic-Functional Categories of Discourse Connectors...	49
Found in NNSW and NSW Corpora	

CONTENTS (CONTINUED)

	Page
4.2.2 Functions of Most Frequent Discourse Connectors.....	54
4.2.2.1 And.....	55
4.2.2.2 But.....	65
4.2.2.3 Because.....	69
4.2.2.4 For Example.....	71
4.2.3 Syntactic Distribution of Discourse Connectors in.....	72
NNSW and NSW Corpora	
4.2.3.1 And.....	74
4.2.3.2 But.....	75
4.2.3.3 Because.....	77
4.2.3.4 For Example.....	78
4.3 Problems of Thai EFL Learners in the Use of Discourse Connectors	79
4.3.1 Discourse Connectors with Prepositional-Phrase Variants...	79
4.3.2 Missing Verbs in Finite Clauses.....	80
4.3.3 Fragments.....	81
4.3.4 Run-ons.....	82
4.3.5 Redundant Use of Discourse Connectors.....	83
4.3.6 Semantic Error.....	86
4.4 Summary of Research Findings.....	86
CHAPTER 5 SUMMARY, IMPLICATIONS AND RECOMMENDATIONS	89
5.1 Summary of the Study.....	89
5.2 Limitations and Implications of the Study.....	92
5.2.1 Implications for Teachers.....	92
5.2.2 Implications for Learners.....	94
5.3 Recommendations for Further Research.....	94
REFERENCES.....	96

CONTENTS (CONTINUED)

	Page
APPENDICES	103
APPENDIX A—Form of Written Assignment.....	104
APPENDIX B—Participant Profile.....	105
APPENDIX C—Complete List of Frequency of the Individual DCs.....	106
Identified in NNSW Corpus	
APPENDIX D—Complete List of Frequency of the Individual DCs.....	108
Identified in NSW Corpus	
VITAE	110

LIST OF TABLES

Table	Page
Table 1: Categorization Taxonomies of Discourse Connectors.....	18
Table 2: Corpus Size.....	39
Table 3: Frequency of Individual DCs in NNSW and NSW.....	45
Table 4: Frequency of Individual DCs in NNSW.....	46
Table 5: Frequency of Individual DCs in NSW.....	47
Table 6: Frequency of DCs in NNSW and NSW Corpora Classified..... into Eight Semantic Categories	49
Table 7: The Use of <i>Because</i> in NNSW and NSW.....	70
Table 8: Frequency of DCs Based on Their Syntactic Distribution.....	73
Table 9: DCs Used as Coordinators and Conjunctive Adverbials in NNSW.....	73
Table 10: The Use of <i>And</i> as Coordinators and Conjunctive Adverbials.....	74
Table 11: The Use of <i>But</i> as Coordinators and Conjunctive Adverbials.....	75
Table 12: The Use of <i>Because</i> as Subordinators and Conjunctive Adverbials.....	77
Table 13: The Use of <i>For Example</i> as Subordinators and Conjunctive..... Adverbials	78

LIST OF FIGURES

Figure	Page
Figure 1: A System of Written Communication.....	10

CHAPTER 1

INTRODUCTION

Chapter 1 consists of six sections. Section 1.1 introduces the background of the study. Sections 1.2 and 1.3 outline the purposes of the study along with research questions. Section 1.4 discusses scope and limitations. Section 1.5 presents significance of the study, followed by definitions of key terms in Section 1.6.

1.1 Background of the Study

In today's communicatively borderless world, languages such as English seem to be the key to understanding people from different countries. With its significance in several domains of life such as business, education, science and technology, particularly in those multicultural contexts which are not its cultural and historical bases, English has gained the status of the world's dominant lingua franca, fostering worldwide cross-cultural communication between non-native speakers. This phenomenon concretely affects the ideological discourse about the language, linguistic competence and identity of the non-native speakers (Fortuno, 2006). The number of learners of English as a second or foreign language (ESL/EFL) has been on the rise across the globe. And English learning is no longer only driven mainly by individuals' linguistic interest, but by needs for global communication and for career advancement in the changing world. Because of its significance, a variety of teaching approaches have been proposed to aid the learners in the process of acquiring English and becoming successful communicators. Although the meaning-focused communicative approach has dominated in language teaching for the purpose of developing learners' communicative competence (Anderson, 1993),

learning writing in English especially for academic purposes remains a challenging task to many non-native learners.

As a matter of fact, writing has been proven to be the most difficult language skill even for native speakers (Norrish, 1983). In some way, it is more difficult than speaking since in written communication there is no additional help of nonverbal cues (e.g., facial expression, gesture) to ensure that the message is accurately understood. Hence, it is very important for writer learners to write in such a way that makes the message clear, succinct, and easily interpretable for the readers.

As difficult as writing is in our first language, writing in a foreign language is even more so, requiring the writers to demonstrate mastery of both form and function of the target language. A written academic text in particular requires more than just the ability of the writers to construct sentences accurately in the standard language, but also an ability to use cohesive devices to produce textual coherence. These cohesive devices have been referred to in the literature by such terms as cohesive elements (Halliday & Hasan, 1976), logical connectors (Quirk et al., 1985), linking adverbials (Biber et al., 1999), conjunctive adverbials (Celce-Murcia & Larsen-Freeman, 1999), connectives (Huddleston & Pullum, 2002), and discourse connectors (Cowan, 2008). The term *discourse connectors* (DCs henceforth) is adopted in this study. The primary function of DCs is to explicitly signal the connections between passages of a text and to state the writer's perception of the relationship between units of the text (Biber et al., 1999). DCs are used in languages for creating discourse or textual cohesion. They are deployed especially frequently in formal writing. Without sufficient DCs, a written text will unlikely be logically constructed, united and coherent, thereby leading to an inaccurate interpretation and possibly a communication breakdown.

Following Halliday and Hasan (1976), research into coherence in students' writing has led several linguistic researchers to maintain that textual cohesion correlates highly with other aspects of effective written expression. For instance, Ramasawmy (2004) conducted a study to explore the correlation between writing quality and

conjunctive cohesion in compositions. Findings revealed significant correlation between cohesiveness and writing quality, implying that cohesiveness was a meaningful indicator and remarkable feature of discourse at the advanced level.

Showing different understandings of DCs in terms of its content, connective, and pragmatic meaning, Blakemore (1987) developed the idea of procedural meaning of DCs and used the following examples to illustrate her idea:

- (1) John can open Bill's safe. He knows the combination.
- (2) a. John can open Bill's safe. *After all*, he knows the combination.
b. John can open Bill's safe. He knows the combination, *then*.

As in example (1), the listener/reader may not be able to immediately interpret the message the speaker intends to convey in the second clause. In (2a), *after all* ensures that the clause it introduces is interpreted as a premise; then in (2b) marks the preceding clause as a conclusion. According to Blakemore, not contributing to the truth-conditional content, the role of DCs is to reduce the reader's processing effort by limiting the range of interpretive hypotheses he has to consider; thus, they contribute to an increase in the efficiency of communication.

It, therefore, seems reasonable to suppose that inappropriate use of DCs in a second language (L2) could, to a certain degree, hinder successful communication, leading to a misunderstanding between message sender and receiver. Hence, as part of communicative competence, L2 learners must acquire the appropriate use of DCs of their target language. It is also plausible to suppose that L2 learners who are competent in the use of DCs of the target language will be more successful in both verbal and non-verbal communication than those who are not (Warsi, 2000). For these reasons, the study of the learners' use of DCs in an L2 merits attention.

According to Connor (1994), text analysis is also a rigorous tool for teachers to describe and evaluate the learners' written texts and especially to help them

pinpoint the source of particular problems in creating a coherent text. In text analysis, teachers describe the pattern of information flow in sentences and its relations to text coherence. However, there have recently been a few studies that examined EFL/ESL learners' writing by means of metatextual or metadiscoursal analysis, or the analysis of the linguistic materials in texts that may not add to the propositional content but help a reader organize, interpret, and evaluate information. Such materials particularly include text connectives (e.g. *however, although, nevertheless*) which skillful writers use (Connor, 1994). In metadiscoursal analysis, L2 teachers look for the use of discourse connectives and describe how novice writers actually acquire them.

In recent years, due to the rapid development of computer and information technology, the construction of electronic corpora and their practical use in various applications have become very common throughout the globe. Linguistic research has also benefited especially from the advanced language processing technology which can deal with a large amount of electronic language data (Narita, Sato & Sugiura, 2004). In language teaching part, the area of corpus-based research called Contrastive Interlanguage Analysis (CIA) has emerged, involving the comparison and contrast between what non-native and native speakers from various mother-tongue backgrounds do in comparable situations with a view to delineate the non-native speakers' interlanguage and shed further light on their linguistic difficulties. (Granger & Tyson, 1996).

As the focus on cohesion and coherence has been part of the new direction in communicative and functional approach in written language teaching, much EFL/ESL research has been done to enhance writing quality of second language learners. Those studies were firmly based on the traditional parts of speech and sentence units such as nouns and verbs, which had been the central issues in linguistic studies for over a thousand years (Stubb, 1983). Corpus-based research concerning DCs in written language was much less found, not to mention the research in Thai contexts. Moreover, from the researcher's own teaching experience, DCs are rich and frequently used in Thai students'

writing, but the students tend to misuse and/or overuse them apparently due to their limited functional knowledge. In this regard, the present study will examine the use of DCs in academic compositions produced by Thai EFL learners and English-native speakers. This investigation will provide insights into similarities and differences in the use of DCs by native and non-native speakers of English, allowing us to determine how distant from or close to the standard variety of English the Thai EFL learners are in their writing.

1.2 Purposes of the Study

The purposes of this study are threefold as follows:

1. To identify which individual DCs are frequently used by Thai EFL learners and English-native speakers in argumentative compositions;
2. To investigate how the DCs are used by the two groups in terms of semantic categories and syntactic distribution;
3. To unveil problems that Thai learners may have when using DCs in their writing.

1.3 Research Questions

The research questions are formulated as follows:

1. Which individual DCs are frequently used by Thai EFL learners and English-native speakers?

2. How are the DCs used by the two groups in terms of semantic functions and syntactic distribution?
3. What problems do Thai learners have when using DCs in their writing?

1.4 Scope and Limitations of the Study

1. This comparative study was aimed at investigating the use of DCs in argumentative essays written by Thai EFL learners who were third-year English major students at Thaksin University, Songkhla and the use of DCs by English-native speakers in the argumentative essays taken from Louvain Corpus of Native English Essays (LOCNESS). The DCs examined are of eight functional categories: (1) addition, (2) enumeration and ordering, (3) exemplification and restatement, (4) concession and contrast, (5) cause and result, (6) summation, (7) stance, and (8) topic shift.

2. The investigation of the use of DCs was carried out under the taxonomy of discourse connectors adapted from Halliday and Hasan (1976), Biber et al. (1999), and Cowan (2008).

3. The study was based on compositions produced by a particular group of Thai EFL learners and a corpus of compositions produced by English-native students. Therefore, to assure the comparability and the validity of the findings, the two groups of subjects needed to be aligned according to a number of variables, for example, their educational level, numbers of words composed in the essays compared, genre of the essays, and elicitation scenarios. It was also ascertained that the corpus selected offered English-native speakers' argumentative compositions with the most similar topic.

4. This study was only carried out with a small number of compositions produced by a particular group of EFL learners, and the findings may neither be

applicable to other groups of ESL/EFL learners, nor those at more advanced level. Generalization of its findings to the broader population of Thai EFL learners must be made with considerable care.

1.5 Significance of the Study

The analytical findings obtained from this study will be valuable for both researchers and teachers concerned with second language writing. They should be able to shed some light on how DCs in English are used as cohesive devices by Thai EFL learners and whether their use differs from that of English-native students. The focus on the use of cohesive devices should also provide valuable insights concerning the practices and the quality of writing of the two groups. Additionally, the findings of the study should be able especially to assist English language teachers in identifying problematic areas in the Thai learners' use of DCs that urgently need be dealt with in a writing course so that the learners' acquisition of DCs and their appropriate use can be assured and the effectiveness in their L2 written communication can be improved. Moreover, the study should help raise awareness of various types and uses of DCs and their particularly important roles in creating textual cohesion and coherence, thus producing effective written texts.

1.6 Definitions of Key Terms

1. **Discourse connectors** are words and phrases that typically connect information in one clause to that in a previous clause and also broadly defined as linguistic clues which signal a relationship between prior and subsequent segments in order to facilitate the text interpretation. Discourse connectors here can be coordinators, subordinators, and conjunctive adverbials that connect clauses or larger units together.

2. **The argumentative composition** is a genre of composition that requires the writers not just to give information but to establish a position on the topic and present an argument with the pros (supporting ideas) and cons (opposing ideas) or comparison and contrast of an argumentative issue.

3. **Semantic categories of DCs** in this study are the eight semantic-functional categories into which the DCs identified can be classified: (1) addition, (2) enumeration and ordering, (3) exemplification and restatement, (4) concession and contrast, (5) cause and result, (6) summation, (7) stance, and (8) topic shift.

4. **Syntactic categories** are also the categories of DCs classified by their distribution in sentences. In this study, DCs can be syntactically classified into three categories:

4.1 **Coordinators** are those DCs used to combine two independent clauses together, usually accompanied with a comma, as in *They got into the car, **and** they began to argue.*

4.2 **Subordinators** are the DCs used to connect a main clause with a dependent clause, as in ***When** he handed in his homework, he forgot to give the teacher the last page.*

4.3 **Conjunctive adverbials** are the DCs used to modify an independent clause or a verb phrase. They may be found sentence-initially, medially, or finally as in the following examples. ***However**, I do believe they are legible. I do, **however**, believe they are legible. I do believe they are legible, **however**.*

CHAPTER 2

REVIEW OF LITERATURE AND RELATED RESEARCH

This chapter reviews the theoretical and research literature under five headings. Sections 2.1, 2.2, and 2.3 present the overview of nature of writing, cohesion and coherence as well as genre of writing. Section 2.4 introduces approaches to the study of discourse connectors. Section 2.5 describes discourse connectors in terms of terminology, definition, taxonomies, and functions of some common discourse connectors (*i.e., and, but, because*). Section 2.6 reviews related studies on discourse connectors.

2.1 Nature of Writing

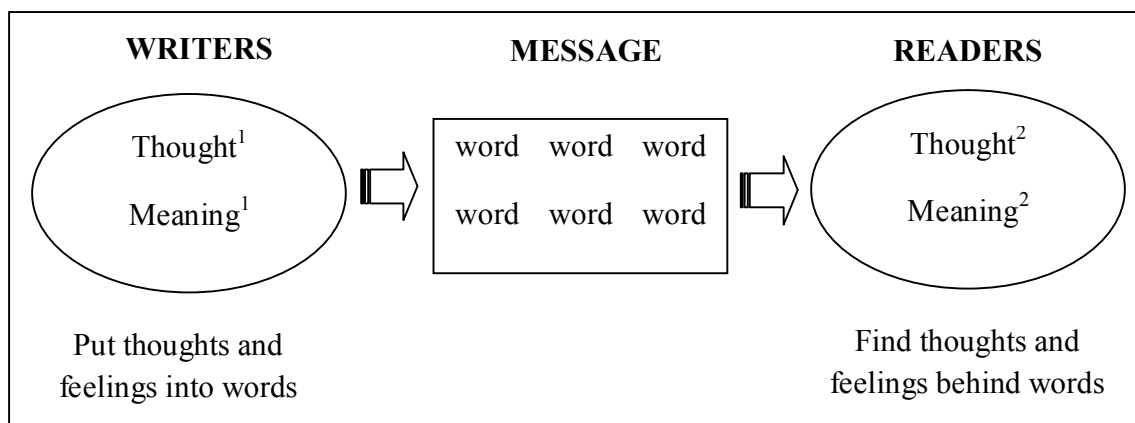
A text, according to Halliday and Hasan (1976), has been theoretically defined as not just a string of sentences. That is to say, it is not simply a lengthy grammatical unit, but a sort of semantic unit. The unity that it has is a unity of meaning in context. Cook (1989) defines the term *text* as stretches of language perceived to be meaningful, unified and purposive. Crystal (1992) views it as a continuous stretch of language larger than a sentence, purposively constituting a coherent unit, such as a sermon, argument, or narrative. Generally speaking, writing consists of an indeterminate number of purposive sentences structurally and semantically unified as a whole (Carter & McCarthy, 2006).

Although speaking and writing are both productive skills, by nature they differ. In speaking, there are some audio-visual features given by the interlocutor such as

oral expressions, gestures, and facial expressions. These features of spoken language help establish successful communication between speakers and listeners. That is, in spoken language, the manner in which the speech is performed by the speakers can convey the full meaning of the messages being sent. Consequently, the listeners are able to accurately interpret the meaning through those visual features and sound expressions. On the other hand, communication via the written channel requires different facets of communicative skills to produce clear, precise, and unambiguous messages to achieve accurate interpretation and successful communication (Woods, 1995, as cited in Sindhubordee, 2002).

On the matter of writing process, we cannot communicate directly with thoughts, so we use groups of words to present our thoughts. So, writing is a systematic communication as described in Figure 1.

Figure 1: A System of Written Communication



(Apipongsathorn, 2002, p.14)

From Figure 1, the message is a bridge from thoughts between the writers and readers. Encoding (putting thoughts into words) and decoding (finding the thoughts behind words) are important. The writers will be able to communicate successfully if the readers decode the message correctly and clearly. Hence, there are numerous ways to make the message (thoughts of the writers) easily interpreted and achieve success in

communication. One of which is the use of text-forming devices (Hoey, 1983) or cohesive ties (Halliday & Hasan, 1976) to signal the writers' intention (Yu, 1995).

2.2 Cohesion and Coherence

To write a well-organized text with unity and meaning, cohesion and coherence are two indispensable components that need to be taken into consideration. Initiated by Halliday and Hasan, the concept of text cohesion and coherence was sparked off in 1976 to discover what and how linguistic properties can create discourse relations in a single text. The concept of cohesion is mainly referred to relations of meaning that exist within the text. When a relation of cohesion is set up, the presupposing and the presupposed elements are potentially connected and integrated into a text, creating a cohesive tie. Cohesion or cohesive meaning, in this regard, is not a structural relation; hence, it is unrestricted by sentence boundaries. Also, cohesion refers to explicit linguistic devices that show a relationship between sentences in each paragraph and between paragraphs that form a text. Coherence, on the other hand, is a combination of two different semantic factors: context of situations and cohesion, establishing an implicit link of ideas within the text.

Halliday and Hasan (1976) have proposed that in any language there are five grammatical and lexical devices that form cohesive relations contributing to texture or coherence in a text; namely, reference, ellipsis, substitution, conjunction, and lexical cohesion. The first three types make use of syntactic operations and closed-class words to create cohesion since their presence in a sentence presupposes the existence of an element in another sentence. For instance, the use of a pronoun presupposes the existence of its referent elsewhere in the text. The fourth type, conjunction, makes use of elements like coordinating conjunctions and subordinating conjunctions to make explicit connections between propositions. The fifth type of cohesive relation is lexical cohesion or the repetition of lexical items or the use of synonymous items throughout various

sections of a text. In some sense, the conjunctive cohesive relation stands apart from the other four in that it does not connect to a second element elsewhere in the text but rather makes an explicit relationship between two propositions. Halliday and Hasan (1976) were quoted saying:

Conjunctive elements are cohesive not in themselves, but indirectly, by virtue of their specific meanings; they are not primarily devices for reaching out into the preceding (or following) text, but they express certain meanings which presuppose the presence of other components in the discourse.

(p.226)

Namely, with conjunctions that have specific meanings, a text could be coherently formed with semantic relations connecting what has gone before with what is to follow.

2.3 Genre of Writing

A genre is defined by Swales (1990) as conventionalized communicative events characterized by particular linguistic behaviors and a set of communicative purposes, e.g., narrative, expositive, argumentative, recipes. Recipes, for example, would appear as straightforward instructional texts designed to ensure that if a series of activities is carried out according to the prescriptions offered, a successful outcome will be achieved. Argumentative texts, on the other hand, would be designed to elicit convincing arguments of an issue. Different genres are structured according to certain patterns of rhetorical organization with stylistic variation. Martin (1985, as cited in Swales, 1990) established genre as a system underlying register. Genres constrain the ways in which register variables of field, tenor, and mode can be combined in a particular discourse community. Register imposes constraints at the linguistic levels of vocabulary

and syntax whereas genre constraints operate at the level of discourse structure. Genre has register as a complementary component. And communicative success within a text may require an appropriate relationship between genre and register.

Beach (1985) claims that students' strategies for creating texts differ by genres and their abilities of writing in different genres may not be the same. For example, their ability of writing narratives may be higher than that of writing other genres such as argument. Thus, it is important to compare texts of the same genre; otherwise, comparison of language is notoriously difficult especially at the discourse level.

2.4 Approaches to the Study of Discourse Connectors

2.4.1 Information Structuring or Rhetorical Structure Theory (RST)

Information Structuring or Rhetorical Structure Theory (RST) is a theory or descriptive linguistic approach delineated to examine a range of phenomena in the organization of discourse or as to how text works (Mann & Thompson, 1988). The theory started with a few assumptions about how written text functions and how it involves words, phrases, grammatical structure, or other linguistic entities (Mann, Matthiessen & Thompson, 1992). RST is mainly concerned about relations that hold between parts of a text or textual segments. It explains coherence by postulating a hierarchical, connected structure of texts, in which every part of a text has a role, a function to play, with respect to other parts in the text. According to this theory, discourse connectors often assume an information structuring role.

2.4.2 Contrastive Rhetoric

Contrastive Rhetoric is a study of similarities and dissimilarities between two languages and how the influence of the L1 may affect the way individuals express themselves in L2. The theories used in Contrastive Rhetoric can be traced back to the

growth of Discourse Analysis since the 1960s when linguists and applied linguists began to focus their attention on the studies of cohesion and coherence in texts and structure of their languages (Chakorn, 2004). Kaplan's Contrastive Rhetoric research (1966) contributed the pioneering discipline in the field of language acquisition and applied linguistics that focused mainly on the rhetoric of writing, studying differences in writing styles across cultures. His first research aimed to examine paragraph organization in English essays written by native and non-native English speakers in terms of the rhetorical level beyond the syntactic level. The analytical findings suggested that each language or culture had rhetorical conventions that were unique and the transfer of the rhetorical conventions of learners' first language to their second language classroom was influential. Strictly speaking, with different cultures, learners may establish their native norms of writing in other literate cultures that are different (McCarthy, 1991). According to this, cultural variation should allegedly be taken into account in language teaching. Contrastive Rhetoric is supportive to language pedagogy particularly of writing since it encourages attention to such issues as (1) knowledge of the morphosyntax of the target language, not at the sentential but at the inter-sentential level (2) knowledge of the writing conventions of the target language both in the sense of frequency and distribution of types and in the sense of text appearance, and (3) knowledge of the subject under discussion (Kaplan, 1988). Based on the premises given, many studies have been devoted to the analysis of writing influenced by cross-cultural aspects to gain precise descriptive knowledge about individual languages and cultures. Especially for pedagogical purposes, if the findings of those contrastive rhetoric studies reveal different aspects between language systems, the differences can be specifically presented in language classrooms so as to make language learners aware of them.

2.4.3 Corpus-Based Study

The needs for empirical data formed the rationale of the International Corpus of Learner English (ICLE) project. Launched in 1990, the aim of the project was

to gather and computerize a large corpus of advanced EFL learner writing, with an intention to investigate the interlanguage of advanced learners from various mother-tongue backgrounds in the light of the major advances which have been made in applied linguistics and computer technology. The area of research is involved in Contrastive Interlanguage Analysis (or CIA), comparing and contrasting what non-native and native speakers of a language do in a comparable situation. In concrete terms, the different non-native English varieties are compared with native speakers' English and with each other. The results of this interlanguage analysis are then examined in the light of classic contrastive analysis of the native languages. The goal is to identify and distinguish between L1-related and universal features of learner language and thus to be able to draw a clearer picture both of advanced interlanguage and of the role of transfer for the different mother-tongue backgrounds. Essentially, in order to achieve comparability, four variables are controlled in the ICLE corpus: type of learner (EFL/ ESL), stage of learner (advanced/ intermediate), text type (academic essay/ letter writing), and a native speaker corpus of similar writing (argumentative/ process) (Granger & Tyson, 1996).

2.5 Discourse Connectors

2.5.1 Terminology and Definition of Discourse Connectors

There has been a continuing increasing interest in the study of discourse connectors, focusing on what they are, what they mean, and what functions they manifest in texts (Martínez, 2004; Jalilifar, 2008). Several different scholars have labeled DCs as clue phrases, discourse connectives (Blakemore, 1987), pragmatic connectives, pragmatic connectors (Stubbs, 1983), discourse operators (Redeker, 1991, as cited in Jalilifar, 2008), connectors (Granger & Tyson, 1996), discourse particles (Sted & Schmitz, 2000), pragmatic devices, pragmatic expressions, pragmatic formatives, pragmatic markers, discourse markers (Schiffrin, 1987; Fraser, 1999), semantic conjuncts, cohesive elements, and sentence connectors (Halliday & Hasan, 1976), linking adverbials (Biber et al.,

1999), logical connectors, conjunctive adverbials (Quirk et al., 1985; Celce-Murcia & Larsen-Freeman, 1999), connectives (Huddleston & Pullum, 2002), logical operators (Blakemore & Carston, 2005), and discourse connectors (Cowan, 2008). The different labels of discourse connectors are thus both practical and theoretical, with a peculiar nuance depending on different research foci.

Halliday and Hasan (1976) echo that cohesion is a pattern of relations between lexical elements and structures like words, phrases and sentences that are combined to build an integrated and logical text by means of explicit linguistic devices that link the elements together, called cohesive devices. In their view, cohesive devices are described as the glue making the different parts of the text hang together. Any expression of a semantic relation which can operate conjunctively falls within the conjunctions such as an adverb, compound adverb, prepositional phrase and linking adverbial (e.g., *furthermore*, *as a result*, *in addition to*). The devices may connect two clauses of equivalent syntactic status (coordinators) or they may link a main clause to a dependent clause (subordinators), while linking adverbials also link passages of text together at sentence boundaries. Conjunctions and linking adverbials often overlap since some conjunctions do merely not connect clauses but sentences too (e.g. *and*, *so*, *but*). By Halliday and Hasan (1976), DCs are classified into four categories: additive, adversative, causal and temporal (See more in 2.5.2.1).

Celce-Murcia and Larsen-Freeman (1999) agreeably maintain that DCs chiefly include coordinating conjunctions, subordinating conjunctions (or adverbial subordinators), and conjunctive adverbials, typically serving to specify the relationships among sentences in oral or written discourse and thereby leading the listener/ reader to the feeling that the sentences hang together or make sense.

Apart from the notions, Lai (2008) reinforces that expressions to be marked as DCs first must belong to a syntactic category of conjunctions such as coordinating and subordinating conjunctions, adverbs or prepositional phrases. Second, conjunctive expressions connect clauses, sentences, or larger linguistic units. Third,

conjunctive expressions perform the function to indicate the semantic relationship between linguistic segments they link.

Functionally, DCs signal a discourse relationship between the interpretation of the segment they introduce, S2, and the prior segment, S1. They connect the relation of either contrast (*John is fat but Marry is thin*), implication (*John is here, so we can start the party*), or elaboration (*John went home. Furthermore, he took his toys*) between the interpretation of S2 and S1. These can indicate a writer's or a speaker's attitude. In terms of content and pragmatic meanings, the content meaning (the propositional content of the sentence) conveys the ideas of the writer. Pragmatic meaning provides signals of the different messages the writer intends to convey through direct, literal communication. The DCs are not part of the sentence's propositional content, but they signal relationship between prior and subsequent segments. While the absence of these DCs does not create effects at the syntactic level, it does affect the unity or connectedness of the whole text (Fraser, 1993, as cited in Ying, 2009; Feng, 2010).

Although the terms and definitions of DCs differ between studies, it is generally accepted that their fundamental role is to explicitly signal the connections between passages of text and to state the writer's perception of the relationship between two units of discourse. Therefore, target sentences preceded by a connector facilitate text interpretation and result in faster reading times than unconnected sentences. Moreover, DCs provide contextual coordinates in discourse. They may be syntactically realized as coordinators, subordinators, and conjunctive adverbials (Haberlandt, 1982, as cited in Ying, 2009; Blakemore, 1987; Schiffrin, 1987; Biber et al., 1999; Fraser, 1999; Cowan, 2008)

2.5.2 Semantic-Functional Categories of Discourse Connectors

Because of the prominent role of DCs making semantic relations between segments, semantic criteria for DC classification is likely to be best to demonstrate their

functions in discourse. With respect to three main relevant frameworks of Halliday and Hasan (1976), Biber et al. (1999), and Cowan (2008), DCs can be categorized as briefly listed in the table below.

Table 1: Categorization Taxonomies of Discourse Connectors

Taxonomy	Semantic functions	
Halliday and Hasan (1976)	(1) Additive (2) Adversative	(3) Causal (4) Temporal
Biber et al. (1999)	(1) Enumeration & addition (2) Summation (3) Apposition	(4) Result & inference (5) Contrast & concession (6) Transition
Cowan (2008)	(1) Ordering (2) Summary (3) Additive (4) Exemplification & restatement	(5) Result (6) Concessive (7) Contrast (8) Attitudinal (9) Abrupt topic shift

2.5.2.1 Halliday and Hasan's Taxonomy

According to Halliday and Hasan's taxonomy of cohesive devices (1976), there are five cohesive devices to create texture (i.e., reference, ellipsis, substitution, conjunction, and lexical cohesion). Conjunction is one of those. Examples (A) and (B) are given to present non-structural relations, but semantic relations of two segments. Although cause and effect are in different sentences, the relationship is still made explicit; for example,

(A) “She didn't know the rules. **Consequently** she died.”

(B) “She died. **For** she didn't know the rules.”

Here the relationship of cause constitutes a cohesive bond between the two clauses; and it is expressed by the words *consequently* and *for*, known as conjunctions. As such, conjunctions can be classified into 4 main categories with a series of DCs as follows:

(1) Additive: indicating coordination in the sense that the two language units connected are to be given equal weight, with neither one subordinate in meaning or emphasis to the other

and, furthermore, moreover, in addition, additionally, similarly, that is, in other words, for example, by the way

(2) Adversative: signaling that what is to come contrasts with what has just been said

but, yet, though, however, while, on the other hand, on the contrary, in fact, actually, instead, nevertheless, nonetheless

(3) Casual: indicating a reason, cause and effect relation

so, because (of), as, for, since, in view of, hence, therefore, as a result, consequently, that's why, otherwise

(4) Temporal: expressing a chronological connection between two pieces of text

(and) then, after, later, as long as, until, after that, at the same time, meanwhile, first, next, finally, when, to sum up

2.5.2.2 Biber et al.'s Taxonomy

Biber et al. (1999) classified DCs into six categories as follows:

(1) Enumeration and addition: indicating logical or time sequence orders and introducing pieces of information enumerated in the opposite order

first, second, lastly, for one thing, for another, firstly, secondly, thirdly (etc), in the first / second place, first of all, for one thing, for another

thing, to begin with, next, in addition, further, similarly, also, by the same token, further (more), likewise, moreover

(2) Summation: showing that a unit of discourse is intended to conclude or sum up the information in the preceding discourse

in sum, to conclude, all in all, in conclusion, overall, to summarize

(3) Apposition: showing that the second unit of the text is to be treated either as equivalent to or included in the preceding unit. In some cases, the second unit is an example

which is to say, in other words, i.e., that, e.g., for example, for instance, namely, specifically

(4) Result and inference: showing that the second unit of discourse states the result or consequence—either logical or practical—of the preceding discourse

therefore, consequently, as a result, hence, in consequence, thus, so, then

(5) Contrast and concession: containing items that in some way mark incompatibility between information in different discourse units, or that signal concessive relationships

on the other hand, in contrast, alternatively, though, anyway, however, yet, conversely, instead, on the contrary, by comparison, anyhow, besides, nevertheless, still, in any case, at any rate, in spite of (that), after all

(6) Transition: marking the insertion of an item that does not follow directly from the previous discourse

by the by, incidentally, by the way

2.5.2.3 Cowan's Taxonomy

Cowan (2008) crystallizes the syntactic notion of DCs as coordinators, subordinators, and conjunctive adverbials. All the three syntactic forms of DCs are classified into nine categories with different semantic descriptions as follows:

(1) Ordering: ordering the main points that speakers or writers want to make and indicating a sequence of steps in a process

first, firstly, second, secondly, third, thirdly, in the first place, in the second place, first of all, for a start, for one thing, for another thing, to begin with, then, next, finally, last, lastly, last of all

(2) Summary: indicating that a summary and conclusion follow preceding information

all in all, in conclusion, overall, to conclude, finally, in sum, in summary, to summarize, to sum up

(3) Additive: adding information to what comes before and showing information as parallel to preceding information

also, in addition, further, furthermore, moreover, too, what is more, on top of that, to top it off, to cap it all

(4) Exemplification and restatement: signaling information in form of examples or some expansion or explanation of what preceded

for example, for instance, that is, in other words, more precisely, which is to say, that is to say, namely

(5) Result: introducing information that is a consequence of preceding information

accordingly, consequently, hence, therefore, thus, as a consequence, as a result, so

(6) Concessive: introducing information that is surprising or unexpected in light of previous information

nevertheless, nonetheless, in spite of that, despite that, still

(7) Contrast: linking information that is viewed as contrastive and making sense of straight contrast that does not involve surprise

in contrast, by way of contrast, conversely, by comparison, however, instead, on the contrary, and on the other hand

(8) Attitudinal: expressing the writer's attitude regarding the truth of preceding content and introducing content in support of cognitive stance

as it happens, indeed, in fact, actually, in actual fact, and in reality

(9) Abrupt topic shift: prefacing an abrupt shift to another topic, which is often peripherally related to the topic described in the preceding sentences.

incidentally, by the way, by the by

2.5.2.4 Taxonomy Used in This Study

The taxonomy of DCs in this study was adapted from Halliday and Hasan (1976), Biber et al. (1999), and Cowan (2008). 140 DCs elicited from the three taxonomies were classified into eight semantic-functional categories: (1) addition, (2) enumeration and ordering, (3) exemplification and restatement, (4) concession and contrast, (5) cause and result, (6) summation, (7) stance, and (8) topic shift as described below.

(1) Addition: adding information to what comes before and showing information as parallel to preceding information

additionally, alternatively, also, and, and also, besides, by the same token, further, furthermore, in addition, in the same way, likewise, moreover, neither, nor, not...either, on top of that, or, or else, similarly, too, what's more

(2) Enumeration and ordering: signaling the order of main points that speakers or writers want to make and indicate a sequence of steps in a process

as a final point, at this point, finally, first, firstly, first of all, for a start, for another thing, for one thing, from now on, henceforward, here, hitherto, in the first place, in the second place, last, lastly, last of all, next, second, secondly, then, third, thirdly, to begin with, up to now

(3) Exemplification and restatement: signaling information in form of examples or expansion or explanation of what preceded

for example, for instance, in a word, in other words, namely, more precisely, that is, that is to say, to put it another way, what is to say

(4) Concession and contrast: introducing information that is somewhat surprising or unexpected in light of previous information; linking information that is viewed as straight contrast

although, and (contrastive), anyhow, but (as against), but (in spite of), by comparison, by contrast, by way of contrast, conversely, despite this, even though, however (as against), however (in spite of), in contrast, in spite of, instead, nevertheless, nonetheless, on the contrary, on the other hand, rather, still, though, whereas, while, yet

(5) Cause and result: introducing information that is a result or consequence of preceding information

accordingly, arising out of, as a consequence, as a result, aside from this, because, consequently, due to, for, for this purpose, for this reason, hence, in consequence, in that case, in this respect, in such an event, on account of, on this basis, or (=otherwise), otherwise, so, then, therefore, thus, under the circumstances, with regard to, with this in mind, with this intention

(6) Summation: showing that a unit of discourse is intended to conclude or sum up the information in the preceding discourse.

all in all, anyway, briefly, in conclusion, in short, in sum, in summary, overall, to conclude with, to get back to the point, to resume, to summarize, to sum up

(7) Stance: expressing the writer's attitude regarding the truth of preceding content and introducing content in support of cognitive stance

actually, as a matter of fact, as it happens, at any rate, at least, in actual fact, in any case, indeed, in either case, in fact, in reality, to tell the truth

(8) Topic shift: marking a sudden transition from one topic to another, which is often peripherally related to the topic described in the preceding sentences

incidentally, by the by, by the way

2.5.3 Syntactic Categories of Discourse Connectors

Discourse connectors can be syntactically and grammatically categorized as: coordinators, subordinators, and conjunctive adverbials.

2.5.3.1 Coordinators

Coordinators, or coordinating conjunctions, are used to build coordinate structures, both phrases and clauses. They link elements which have the same syntactic role. The main coordinators are *and*, *but*, and *or*, with a core meaning of addition, contrast, and alternative, respectively (Biber et al., 1999). The words *and*, *but*, and *or* are all used cohesively as coordinators, and all of them are classified as conjunctive—semantic relation. The distinction between the two terms, coordinators (clause-structural relation) and conjunctive (semantic relation), is not clearcut. However, a conjunctive is placed at the beginning of a new sentence (Halliday & Hasan, 1976).

(C) “*Was she in a shop? **And** was that really—was it really a sheep that was sitting on the other side of the counter.*” (conjunctive)

(Halliday & Hasan, 1976, p.245)

(D) “*I don’t want to speak soon, **but** I think I have been fairly consistent this reason.*” (coordinator)

(E) “*They may imply the same sequence of uplift, erosion, and subsidence, **or** they may reflect a fall or rise of global sea level.*” (coordinator)

(Biber et al., 1999, p.79)

2.5.3.2 Subordinators

Subordinators, or subordinating conjunctions, are words which introduce dependent clauses. The great majority of subordinators introduce adverbial clauses such as *because*, *since*, *although*, *though*, *while*, etc. By Halliday and Hasan (1976), they are also regarded as discourse connectors since they deal with intra-sentential cohesion, but differ from coordinators and adverbials, which link relations both within and between sentences. According to Ramasawmy (2004), it is possible to treat subordinators as

discourse devices because they indicate the meaning relationship between the dependent and the independent clauses.

(F) “**Although** he would not be mocked, Frith was his friend.”

(G) “Frith was his friend **although** he would not be mocked.”

2.5.3.3 Conjunctive Adverbials

Conjunctive adverbials, or linking adverbials, are closely related to coordinators. Conjunctive adverbials are more peripheral in clauses and not part of the predicate. Conjunctive adverbials can be lexical items (e.g., *however*, *next*, *consequently*), phrasal constructions (e.g., *in other words*, *that is*) or sentence-modifiers that connect the unit in which they occur to a larger unit in discourse. They may function in logical relations such as consequence and reason or involve temporal sequencing of segments (e.g., *first*, *firstly*, *then*), as in the following example:

(H) “Mary entered the room. **Then** she saw the television set had been stolen, and she realized that she was living in a dangerous district.”

(Ramasawmy, 2004, p.35)

An important characteristic of conjunctive adverbials is that they can occur in a variety of positions in a clause. The positions of these adverbials are initial, medial and final, as shown in (I)-(K).

(I) **Nevertheless**, they carved out a 5.7 percent share of the overall vote.

(J) They **nevertheless** carved out a 5.7 percent share of the overall vote.

(K) They carved out a 5.7 percent share of the overall vote **nevertheless**.

(Biber et al., 1999, p.80)

Common coordinators (e.g., *and*, *but*, *or*, *so*) can occur as conjunctive adverbials, but in the fixed initial position at the clause boundary. Compare the flexibility of the adverbial *nevertheless* with *but* in the following examples:

(L) “**But** they carved out a 5.7 percent share of the overall vote.”

(M) “They ***but** carved out a 5.7 percent share of the overall vote.”

(N) “They carved out a 5.7 percent share of the overall vote ***but**.”

(Biber et al., 1999, p.80)

2.5.4 Common Discourse Connectors

Discourse connectives such as *and*, *but*, and *because*, usually subsumed under the category of conjunctions, have long been a subject of considerable scholarly interests (Chang, 2008), thus being reviewed in this section.

2.5.4.1 And

According to Stubbs (1983), *and* has a much wider range of functions. Logical relations with *and* is symmetrical: $O \text{ and } P = P \text{ and } O$. In natural language *and* may be used for a symmetrical relation so that these two sentences may be used synonymously:

(O) “He plays the flute **and** she plays the clarinet.”

(P) “She plays the clarinet **and** he plays the flute.”

(Stubbs, 1983, p.79)

It is the fact that *and* is used cohesively to link one sentence to another. *And* can be referred to as the *coordinate* “*and*” and the *conjunctive* “*and*”. The *coordinate* “*and*” is a marker of structural relation whereas the latter is of semantic relation in text formation (Halliday & Hasan, 1976).

According to McCarthy’s (1991) semantic notion, *and* can be widely used to express four senses depending upon contexts. Shown in (Q)-(T) are additive, adversative, causal, and temporal senses of *and*:

(Q) “She’s intelligent. **And** she’s very reliable.”

(additive)

(R) “I’ve lived here ten years **and** I’ve never heard of that pub.”

(adversative)

(S) “He fell in the river **and** caught a chill.”

(causal)

(T) “I got up **and** made my breakfast.”

(temporal sequence)

(McCarthy, 1991, p.48)

Typically, *and* marks an additive relationship between sentences. Although not often found, the sentence-initial *and* in (U) is used to signal the last item on a list in academic writing.

(U) “At the end of three yards I shall repeat them - for fear of your forgetting them. At the end of four, I shall say goodbye. **And** at the end of five, I shall go!”

(Bell, 2007, p.186)

In a narrative context like in (V), *and* likely marks a temporal sequence. A basic interpretative principle is that *and* can be interpreted temporally as *and then*.

(V) “He seemed so full of life that time. **And (then)** what could it have been, six weeks after we started coming in here, right at the outside, off he goes.”

(Biber et al., 1999, p.84)

And also expresses causal relations. To mark casual relations, changing the sequence of the clauses connected by *and* will change the meaning. (W) and (X) can be interpreted causally. The two sentences tell different stories:

(W) “He got drunk **and** crashed the car.”

(X) “He crashed the car **and** got drunk.”

In addition, *and* marks a shift from one sentence to the next, as illustrated in (Y).

(Y) “*He heaved the rock aside with all his strength. **And** there in the recesses of a deep hollow lay a glittering heap of treasure.*”

(Halliday & Hasan, 1976, p.235)

2.5.4.2 But

The relationship between the elements conjoined by *but* and other contrastive markers (CM), as the term suggests, has been associated with the ideas of contrast (Blakemore, 1987; Umbach, 2001)

In general, two types of contrast have been distinguished in terms of the source of contrast: semantic contrast and denial of expectation. Semantic contrast which parallels the idea of semantic opposition, ideational contrast or referential contrast (Schiffrin, 1987) or direct contrast (Fraser, 1999) embodies the most typical use of a CM.

The denial-of-proposition use shades into a more general function of CMs, i.e. denial of expectation. That is, a CM introduces a segment/clause to deny an expectation or belief that is not realized lexically but should be inferred from the previous discourse, the situational context, or the speaker’s or hearer’s world or culturally based knowledge (Chang, 2008).

(Z) “*John keeps six boxes of pancake mix on hand, **but** he never eats pancakes.*”

(Sweetser, 1990, as cited in Chang 2008, p.2116)

But in (Z) presents two clauses which contrast with each other at the epistemic level. With the premise in the first clause, one would normally conclude that *John eats pancakes*, which, however, clashes with the second clause (Chang, 2008).

2.5.4.3 Because

The conjunction *because* is a marker of subordinate idea units. In terms of the syntactic category, *because* is a subordinating conjunction. It introduces dependent clauses which must be linked with independent clauses to form a complete grammatical construction (Carter & McCarthy, 2006). In terms of semantic functions, *because* is deployed not just to express the cause-effect relationship, but also to express the reason relationship as a marker signaling a ‘this is why I am saying this’ function (McCarthy, 1991). *Because* is a clear reversed form of the causal relation, in which the presupposing sentence presents the cause, as in (A1).

(A1) “*She couldn’t sleep because there was too much noise coming from the street.*”

(Cowan, 2008)

2.6 Related Studies on Discourse Connectors

The search for related literature revealed a lack of research delving into the contrastive use of discourse connectors, particularly conjunctions (i.e. coordinators and subordinators) and conjunctive adverbials, by native and non-native speakers of English. Therefore, a literature review was alternatively done of various studies on DCs conducted in different aspects and contexts.

While remaining controversial, a number of studies have tried to determine whether the use of cohesive devices like DCs is correlative with enhanced cohesion and coherence in writing. According to Zhang’s study of cohesion (2000), 107 expository compositions were elicited from Chinese English majors to investigate the relationship between the use of cohesive devices and quality of writing. This study found that there was no difference in the deployment of cohesive devices in good and weak writing.

On the other hand, some researchers like Jafarpur (1991) found that compositions scored holistically high contained more cohesive devices than those scored low. In addition, it was shown that lexical cohesion was the most common category in both good and weak essays, followed by reference and conjunction.

Johnson (1992) analyzed 20 expository essays in Malay, 20 essays in English by the same group of Malay students, and 20 essays in English by native speakers. Norment (1994) studied 30 Chinese college students' writing in Chinese and English on both expository and narrative topics following Halliday and Hasan's (1976) framework. In Norment's study, it was found that there was a difference between text types in the use of cohesive devices and a correlation in the frequency of ties and the quality of writing, while Johnson (1992) found no discrimination between native and ESL students in the frequency of ties.

Martínez (2004) investigated the use of discourse markers in expository compositions of Spanish undergraduates. The compositions were collected from a sample of 78 first-year English students at the Faculty of Chemistry of the University of Oviedo. Fraser's (1999) taxonomy was used for the analysis of discourse markers in students' writing. It was found that students employed a variety of discourse markers with some types being used more frequently than others. Elaborative markers were the most frequently used, followed by contrastive markers. There was a statistically significant relationship between the scores of the compositions and the number of DCs used in the same compositions. Thus, the larger the number of DCs used, the higher the score of the composition. Those essays with a larger number of elaborative, contrastive and topic relating DCs obtained a higher score. Elaborative markers were the most closely related to the compositions' quality.

Concerning over/misuse of DCs, John (1984) analyzed English essays composed by Chinese tertiary-level teachers according to Halliday and Hasan's (1976) taxonomy of cohesive devices (i.e., reference, ellipsis, substitution, conjunction, and

lexical cohesion). The result showed that conjunctions were overused by the Chinese teachers. In contrast, lexical cohesion was moderately used by English native speakers.

In a similar study, Field and Yip (1992) compared 67 Hong Kong students' with 29 Australian students' writings on an argumentative topic following Halliday and Hasan's taxonomy (1976), and found that non-native students of English used more conjunctions than Australian students did, and they usually put all the conjunctions at the beginning of the sentence. Additionally, the overuse of additive and appositive connectors was also noted in the writings of Hong Kong students.

Another study of the use of DCs was done by Jalilifar (2008). In this study, 90 Iranian students' descriptive compositions were collected to analyze by three raters following Fraser's taxonomy (1999). It was showed that students employed discourse markers with different degrees of occurrence. Elaborative markers were the most frequently used, followed by inferential, contrastive, causative, and topic-relating markers. An especially important finding of the study was the statistically significant relationship between the quality of the compositions and the number of well functioned DCs used in the compositions. A larger number of DCs in appropriate use affected the higher quality of the composition. However, the repetition of the same connectors appeared in the poor compositions. More experienced students frequently used DCs in right places. Although less experienced students used more DCs in order to create more cohesive texts, they overused them probably to make their compositions seem more acceptable.

Using Halliday and Hasan's taxonomy of cohesive devices and their framework for analysis, Braine and Liu (2005) investigated the use of cohesive devices in 50 argumentative compositions created by Chinese undergraduate non-English majors. It was found that the students were able to use a variety of cohesive devices in their writing, among which lexical devices constituted the largest percentage of the total number of cohesive devices, followed by references and conjunctives. With regard to the use of conjunctions, it seemed that the students were capable of using a variety of devices to

bridge the previous sentences and the following ones to make their writing clearer and more logical. However, only those commonly used items such as *but*, *or*, and *and* as well as *so* were the students' favorites, whereas the items learned later such as *furthermore*, *on the contrary*, *moreover*, *in addition*, *on the whole*, and *nevertheless* seldom occurred in their writing.

Ying (2009) investigated the characteristics of the use of contrastive discourse markers, particularly the use of *but* by native English speakers (NS), Chinese non-native English speakers (CNNS), and Japanese non-native English speakers (JNNS). The results showed that some functions of *but* were distinctive from other previous studies; *but* was presented in the English writings by CNNS and JNNS with three functions of denial of expectation, semantic opposition, and transitional persuasion. CNNS and JNNS preferred to use *but* as a substitute for *however*, when *however* should be used, or vice versa. Moreover, they were likely to use *but* and *however* at the beginning of a sentence or clause.

Lai (2008) also used Halliday and Hasan's framework to conduct a corpus-based research. 108 target conjunctions were selected and analyzed within 102 essays in the mode of comparison and contrast composed by 25 skilled and 26 unskilled undergraduate writers. The results indicated that overall the unskilled writer students used the conjunctions more frequently than skilled students. The two groups of writer students used conjunctions to add, list and contrast points. They tended to use coordinating types of conjunctions, compared with adverbial and prepositional types of conjunctions. Qualitatively, the analysis revealed that the erroneous use of conjunctions made by both groups of writer students mainly manifested in three aspects. Namely, the two groups ungrammatically used conjunctions, were unaware of which categories the conjunctions belong to, and chose wrong choice of conjunctions.

Similarly, Chieu (2004) undertook a study on L2 acquisition of the most commonly used coordinating conjunction *and* in English essays written by three groups of Taiwanese college students with high, mid, and low proficiency. All the participants

were required to compose an essay on the topic of *An Unforgettable Experience* within two hours. The results showed that a number of error patterns could be traced due to the existence of *and*. Ignorance of *and* as well as omission of the copula *be* were found to be related to L1 transfer and to the EFL reading and grammar materials these learners were exposed to in the EFL setting.

Granger and Tyson (1996) conducted a study using the International Corpus of Learner English (ICLE). The study compared the use of conjunctive adverbials in writings of French and German learners of English with a corpus of native speakers' writings. This study was based on Quirk et al.'s taxonomy of connectors (1985) and was well controlled in terms of the source texts; the NS corpus was the Louvain Corpus of Native Essay Writing (LOCNESS). The comparison between the French's writings and writings by German learners of English suggested that some, but not all, of the usage patterns were the result of L1 discourse conventions and translation equivalents. In terms of the use of individual connectors, the learners seemed to overuse connectors which perform particular functions: corroborating an argument (*indeed, of course, in fact*), giving examples (*e.g., for instance, namely*), and adding points to an argument (*moreover*). There was underuse of connectors which contrasted (*however, though, yet*) and developed an argument (*therefore, thus, then*).

Narita, Sato and Sugiura (2004) reported on quantitative analysis of 25 logical connectors in advanced Japanese university students' essay writings, compared them with the use in comparable types of native English writings, and also presented a brief comparison of the Japanese learners' usage with that of advanced French, Swedish or Chinese learners of English. They chose 25 logical connectors and selected two sub-corpora of the ICLE project to obtain comparable data on the usage of these logical connectors by advanced Japanese EFL learners and English native speakers. Every instance of the target logical connectors was extracted from the two corpora, and not only the frequency counts but also the occurrence position of each connector were examined. Research findings showed that Japanese EFL learners significantly overused such logical

connectors as *for example*, *of course*, and *first* in sentence-initial position whereas they underused such connectors as *then*, *yet*, and *instead*. It was also evident that the 4 learner groups of different mother tongues shared a common set of over- and underused connectors.

Bikelienė's (2008) study of resultative connectors in LOCNESS revealed that *therefore* and *thus* were among ten most frequent connectors both in the learners' and native speakers' corpora. Their positions varied between the second and the sixth among top ten connectors. The native speakers tended to rely on a smaller set of connectors than the learners of English. The Lithuanian learners differed both from learners of other language backgrounds and native speakers on the ratio of *therefore* and *thus*. The Lithuanian learners' distributing pattern of *therefore* throughout different paragraphs of the text was similar to that of the native speakers'. Although not favored by the native speakers, the sentence initial position of *therefore* was preferred by the Lithuanian learners as well as learners of other language backgrounds. This was considered an interlanguage phenomenon. A possible explanation for the observed differences was attributed to features of interlanguage, developmental errors, inadequate information in reference tools, language transfer, etc.

In Yeung (2009), the connective *besides* was investigated in terms of its meaning and functions through examining expert corpora, dictionary definitions, and examples, as well as comparing the experts' use with that by Hong Kong Chinese learners. The Cobuild database showed that *besides* was often used in a spoken or narrative context to reinforce an argument, giving it a sense of finality. Other expert corpora of formal writing showed no incidence of the use of *besides* as a connective. In contrast to the expert data, a corpus of Hong Kong Chinese learners' formal writing displayed a high incidence of *besides*. The learners' use of *besides* also seemed to be confined to the meaning and function of *in addition*, often without the rhetorical force of argument so characteristic of the use of *besides* in the expert corpora. The study of *besides* showed that connectives should be understood not only in terms of their semantic

meanings but were better grasped through an appreciation of their pragmatic and stylistic functions in actual contexts of use.

As can be seen from the review of these related studies, the focus was placed largely on such issues as the relationship between DC use and writing quality, frequency of DC use in native and non-native speakers' writings, functions of DCs, and problems related to DC use in learners' writings. The studies indicated that some individual DCs remained problematic to the learners as they were overused, underused, and misused. And the problem with the use of these DCs in English writing was due partly to L1 influence.

CHAPTER 3

METHODOLOGY

This chapter presents the methodology employed in the study. Section 3.1 describes the research participants. Sections 3.2 and 3.3 show the data collection procedure and the method of discourse connector analysis.

3.1 Research Participants

The participants of this study were 24 randomly chosen third-year undergraduates majoring in English at Thaksin University, Songkhla Campus. The group was made up of 20 females and 4 males at the age of 20-21. The reason for the purposive selection of the participants was that the third-year students had previously taken several English courses such as *English I*, *English II*, *Translation I*, *Translation II*, *Advanced Translation*, *Basic Writing*, *Business English Writing* and *Academic Writing*. Therefore, they were expected to have been exposed to formal writing instruction in class and to have attained a level of proficiency high enough to produce extensive and meaningful compositions for the analysis of their use of cohesive devices.

3.2 Data Collection Procedure

In this study, 44 argumentative compositions were collected for data analysis by means of the following:

3.2.1 Thai EFL Learners' Compositions

This research was conducted with Thai EFL students in the Advanced Writing course at Thaksin University, Songkhla Campus. Within two hours, each of the Thai EFL learners was asked to write a 500–1000-word composition to argue for or against one of the following statements:

Computer games should be forbidden in universities;

Sex and violence should be banned from the media;

Love in schools is not suitable;

Nowadays women and men are treated equal.

(see Appendix A)

It had been shown in the literature that many features of language were extremely genre-sensitive, so the types of writing or genre would significantly alter the results obtained. Therefore, if this study was about similarities and differences in terms of language usage, it would have been essential to set the written task under the same comparable genre for the conclusive results. In this study, the argumentative genre was chosen because the discourse connectors were proven to be embedded more prominently in an argumentative essay rather than in any other genres such as a narrative (see, e.g., Granger & Tyson, 1996). The topics selected for this study were adapted from related studies found in previous literature. Four topics were provided due to the concern that the students might lack ideas about or familiarity with a single topic. Different from that of the English-native speakers' essays, the topics were however assured to be most familiar to Thai students at this age and controversial enough in Thai contexts to elicit substantial argumentative essays. Essentially, for reasons of data originality and significance, the use of dictionaries, course textbooks or any grammar book was not permitted in class in accordance with all the same criteria of NSs' writing.

Pilot study

Thirty third-year English major students at Rajamangala University of Srivijaya, Trang Campus, were piloted to determine the effectiveness of the topics,

the appropriateness of the time allowed, and the average number of words that students were able to compose within the time limit.

In the real study, a questionnaire (see Appendix B) was also given to the students to probe into their demographic data. It contained items to elicit their personal information and English language background. The questionnaire was administered promptly after the writing task was finished.

3.2.2 English-Native Speakers' Compositions

Argumentative essays of English-native speakers were collected from the Louvain Corpus of Native English Essays (LOCNESS), which distributes a learner language corpus free of charge as a service to the growing community of linguists who carry out corpus-based research on learner language.

Twenty English essays retrieved from LOCNESS were written by native speakers of the age of 19-23 from the University of Michigan. The genre required was argumentative writing on the topic of "Great inventions and discoveries of 20th century (computer, television, etc.) and their impact on people's lives." Altogether, there were 43 argumentative essays in the corpora coded ICLE-US-MICH-0001.1-45.1, but 20 essays were randomly selected for analysis in this study.

The English-native speakers' compositions were retrieved from the corpus because of the researcher's limited access to a proper portion of English-native speakers of the same average age and similar educational level as Thai EFL learners'.

Table 2: Corpus Size

	NNSW	NSW
Number of texts	24	20
Total number of words	7,887	8,350
Average length of text	328.6	417.5

Notes: NNSW=Non-native speakers' writing; NSW=Native speakers' writing

As shown in Table 2, although the number of texts elicited from the two groups is different (24 from NNSs and 20 from NSs), it was assured that the total number of words and the average length of the compositions produced are comparable.

3.3 Data Analysis

The data obtained was examined with regard to the following aspects:

1. the DCs frequently used in learners' and native speakers' writings;
2. the use of DCs by the Thai learners and native speakers in terms of frequency, semantic functions, and syntactic distribution;
3. the similarities and differences in the use of DCs between Thai learners and native speakers;
4. the problems the Thai learners have using DCs.

Quantitative and qualitative analysis of the two comparable collections of compositions was performed to answer the following research questions previously outlined in Chapter 1.

Research question 1: Which individual DCs are frequently used by Thai EFL learners and English-native speakers?

Research question 2: How are the DCs used by the two groups in terms of semantic functions and syntactic distribution?

Research question 3: What problems do Thai learners have when using DCs in their writing?

With regard to Research Question 1, each composition was computerized and examined sentence by sentence. The discourse connectors used in each composition were identified, counted and categorized following the taxonomy of discourse connectors adapted from Halliday and Hasan (1976), Biber et al. (1999),

and Cowan (2008). For reliability purposes, the categorization was performed by the researcher and the other two raters who were experts in English grammar and writing. 140 discourse connectors identified were classified into eight semantic-functional categories: (1) addition, (2) enumeration and ordering, (3) exemplification and restatement, (4) concession and contrast, (5) cause and result, (6) summation, (7) stance, and (8) topic shift. Taken and adapted from the taxonomies proposed in Halliday and Hasan (1976), Biber et al. (1999), and Cowan (2008), these eight categories of DCs are illustrated below.

(1) Addition: adding information to what comes before and showing information as parallel to preceding information

additionally, alternatively, also, and, and also, besides, by the same token, further, furthermore, in addition, in the same way, likewise, moreover, neither, nor, not...either, on top of that, or, or else, similarly, too, what's more

(2) Enumeration and ordering: signaling the order of main points that speakers or writers want to make and indicate a sequence of steps in a process

as a final point, at this point, finally, first, firstly, first of all, for a start, for another thing, for one thing, from now on, henceforward, here, hitherto, in the first place, in the second place, last, lastly, last of all, next, second, secondly, then, third, thirdly, to begin with, up to now

(3) Exemplification and restatement: signaling information in form of examples or expansion or explanation of what preceded

for example, for instance, in a word, in other words, namely, more precisely, that is, that is to say, to put it another way, what is to say

(4) Concession and contrast: introducing information that is somewhat surprising or unexpected in light of previous information; linking information that is viewed as straight contrast

although, and (contrastive), anyhow, but (as against), but (in spite of), by comparison, by contrast, by way of contrast, conversely, despite this, even though, however (as against), however (in spite of), in contrast, in spite of, instead, nevertheless, nonetheless, on the contrary, on the other hand, rather, still, though, whereas, while, yet

(5) Cause and result: introducing information that is a result or consequence of preceding information

accordingly, arising out of, as a consequence, as a result, aside from this, because, consequently, due to, for, for this purpose, for this reason, hence, in consequence, in that case, in this respect, in such an event, on account of, on this basis, or (=otherwise), otherwise, so, then, therefore, thus, under the circumstances, with regard to, with this in mind, with this intention

(6) Summation: showing that a unit of discourse is intended to conclude or sum up the information in the preceding discourse.

all in all, anyway, briefly, in conclusion, in short, in sum, in summary, overall, to conclude with, to get back to the point, to resume, to summarize, to sum up

(7) Stance: expressing the writer's attitude regarding the truth of preceding content and introducing content in support of cognitive stance

actually, as a matter of fact, as it happens, at any rate, at least, in actual fact, in any case, indeed, in either case, in fact, in reality, to tell the truth

(8) Topic shift: marking a sudden transition from one topic to another, which is often peripherally related to the topic described in the preceding sentences

incidentally, by the by, by the way

After the counting and categorizing, the frequency results were compared to determine the high frequent individual DCs between the two groups—Thai EFL learners and English-native speakers.

To address Research Question 2, only the DCs frequently found in the learners' writing were qualitatively analyzed because it could be assumed that the frequent DCs were more likely to be found in students' argumentative writing. Thus, this may assist teachers not only in identifying particular individual DCs frequently used by the learners, but also in envisioning potentially problematic areas in their use of DCs which may need priority treatment. The use of the frequent DCs by the learners was then compared with the native speakers' to investigate their similarities and differences emphatically in terms of semantic functions and syntactic distribution.

In order to answer the last question, some DCs which were used ungrammatically were highlighted and analyzed. Particular consideration was given to grammatical and functional errors.

CHAPTER 4

FINDINGS AND DISCUSSION

This chapter presents findings and a discussion of the findings. Section 4.1 addresses Research Question 1, regarding the frequency of discourse connectors found in NNSW and NSW corpora. Section 4.2 elaborates on Research Question 2 as to how the discourse connectors semantically function and are syntactically distributed in the written texts of the two groups. Section 4.3 addresses Research Question 3, concerning problems in using discourse connectors of the Thai EFL learners. Section 4.4 summarizes the findings of the study.

4.1 Frequency of Discourse Connectors Used

For a general view of DC use in Thai EFL learners and English-native speakers' writings, the overall frequency of DCs found in the two corpora is initially investigated. Then, the frequency of individual DCs used by the two groups is discussed. This section concludes with a comparison of the use of preferred DCs by the two groups in terms of frequency.

4.1.1 Overall Frequency

Table 3 presents the total number of words, the total number of DC occurrences as well as the total number of individual DCs in non-native speakers' writings (NNSW) and native-speakers' writings (NSW).

Table 3: Frequency of Individual DCs in NNSW and NSW

	NNSW	NSW
Total number of words	7,887	8,350
Total number of DCs	326	226
Individual DCs	51	53

The results gained from Table 3 reveal that from the total number of 7,887 words in the non-native speakers' writings 326 DCs could be identified and 226 could be identified out of 8,350 words in the native speakers' ones. In spite of the lower number of words, the overall frequency of DC occurrences in the NNSW was higher than that in the native speakers'. The native speakers and non-native speakers used 53 and 51 individual DCs, respectively. Only 35 individual DCs were shared by the two groups, suggesting that the two groups had somewhat different dispositions with regard to the use of DCs.

4.1.2 Frequency of Individual Discourse Connectors Used in NNSW and NSW Corpora

Table 4 presents the top sixteen individual DCs found in the non-native speakers' writing corpus. It provides the information of raw frequency counts of an individual DC and the ratio of frequency counts of an individual DC to the overall frequency of the DCs examined in the corpus. For convenience sake, only DCs accounting for 2% or more of the total number of DCs produced in the NNSW corpus are listed. A complete list of the DCs used by the group of non-native speakers is presented in Appendix D. The data on the raw frequency and the percentage relative to the total number of DCs are arranged in a descending order.

Table 4: Frequency of Individual DCs in NNSW

Rank	Individual DCs	Number of DCs used	%
1	Because	39	11.96
2	But (as against)	38	11.66
3	And	35	10.74
4	For example	29	8.90
5	Although	13	3.99
6	On the other hand	13	3.99
7	So	11	3.37
8	In conclusion	11	3.37
9	Also	10	3.07
10	Second	10	3.07
11	Moreover	9	2.76
12	Too	9	2.76
13	Still	9	2.76
14	Therefore	7	2.15
15	Last	7	2.15
16	Third	7	2.15

As can be seen from Table 4, the use of individual DCs was unevenly distributed over the non-native speakers' writing corpus. Some DCs were seemingly employed more often than others. The most frequent DCs in the non-native speakers' corpus were *because*, *but*, *and*, and *for example*. The DC with the highest frequency was *because*, which accounted for 11.96% of the overall occurrences of DCs in the non-native speakers' writing corpus. From the fifth and sixth most frequently used DCs, *although* and *on the other hand*, the percentage of the individual DCs sharply dropped to 3.99%, which was less than half of the percentage of the most frequent

DC. This indicates that the DCs like *because*, *but*, *and*, and *for example* were most intensively employed by the non-native speakers, compared to other DCs such as *although*, *on the other hands*, and *so*. The percentage of frequently used DCs from the fourteenth to sixteenth ranks (i.e. *therefore*, *last*, and *third*) declined to 2.15% only. This indicates that the Thai EFL students opted for only a small cluster of DCs in their writing.

Similar to Table 4, the top thirteen individual DCs that frequently occurred in the English-native speakers' compositions are presented in Table 5. Shown in the table are the raw frequencies of an individual DC and the percentage of DC occurrence from the first to the thirteenth DCs frequently used by the native speakers. Only DCs accounting for 2% or more of the total number of DCs used in the native-speakers' writing corpus are listed. A complete list of the DCs used by the native speakers is presented in Appendix E.

Table 5: Frequency of Individual DCs in NSW

Rank	Individual DCs	Number of DCs Used	%
1	And	39	17.26
2	Also	25	11.06
3	But	24	10.62
4	Because	16	7.08
5	For example	11	4.87
6	However	9	3.98
7	Due to	8	3.54
8	Yet	6	2.65
9	Therefore	6	2.65
10	So	5	2.21
11	Still	5	2.21
12	Although	5	2.21
13	Though	5	2.21

As shown in Table 5, the DCs with the highest frequencies in the native speakers' corpus were *and*, *also*, and *but*. The first most frequently used DC *and* alone accounted for 17.26% of the overall occurrences of DCs in the native speakers' writing corpus. As for the fourth frequently used DC *because*, the percentage of use falls to 7.08%, which was less than half of the percentage of *and*. This suggests that unlike Thai learners, native speakers are much less inclined to use *because* as a marker of reason in their essay writing. Besides using *because*, the native speakers alternatively used *due to*, which hardly appeared in the learners' writings, to mark off a cause and a reason. However, in the native speakers' writings the percentage of the tenth to thirteenth frequently used DCs *so*, *still*, *although*, and *though* decreased to 2.21% only. In addition, among 53 individual DCs identified, the top five most frequently used DCs (i.e., *and*, *also*, *but*, *because*, and *for example*) had already taken up 50.89%, which was over half of the overall DC occurrences in the native speakers' writings, suggesting that as in the non-native speakers' not many individual DCs were frequently deployed in the native-speakers' writing.

As revealed in Tables 3, 4, and 5, non- and native speakers of English relied heavily on a relatively narrow range of individual DCs when producing their argumentative compositions. There were about 51 and 53 individual DCs employed in the NNSW and the NSW Corpus respectively. The most frequent DCs found in the top rank in the two corpora fall on *and*, *but*, *because*, and *for example* although different in the percentage of use. Additionally, there appeared some DCs infrequently shared by the two groups and much less found in the NNSW Corpus, for instance, *also*, *however*, *due to*, *yet*, and *though*. Seemingly, most of these were the DCs the usage of which the learners had hardly been taught or exposed to in their writing classroom.

4.2 Comparison of the Use of Discourse Connectors between NNSW and NSW Corpora

Although the quantitative examination of DCs has brought much instructive information, the qualitative analysis of DCs is also another important task

to reinforce Research Question 1 and to address Research Question 2. Accordingly, this section discusses the similarities and dissimilarities in the use of DCs between Thai EFL learners and English-native speakers. The discussion focuses on the comparison of the DCs used in the corpora in terms of their semantic-functional categories, semantic functions, and syntactic distribution.

4.2.1 Semantic-Functional Categories of Discourse Connectors Found in NNSW and NSW Corpora

As shown in Table 6, in accordance with the taxonomy adapted from Halliday and Hasan (1976), Biber et al. (1999), and Cowan (2008), the DCs identified in both corpora can be classified into 8 semantic functional categories: addition, enumeration and ordering, exemplification and restatement, concession and contrast, cause and result, summation, stance, and topic shift.

Table 6: Frequency of DCs in NNSW and NSW Corpora Classified into Eight Semantic Categories

Categories	NNSW			NSW		
	Individual DCs	Tokens	%	Individual DCs	Tokens	%
Addition	and	35	10.74	and	39	17.26
	also	10	3.07	also	25	11.06
	moreover	9	2.76	in addition	2	0.88
	too	9	2.76	too	2	0.88
	additionally	3	0.92	and also	1	0.44
	furthermore	3	0.92	besides	1	0.44
	likewise	3	0.92	furthermore	1	0.44
	similarly	2	0.61	moreover	1	0.44
	or	1	0.31	or	1	0.44
	Subtotal	75	23.01	Sub-total	73	32.30
Enumeration and ordering	second	10	3.07	finally	4	1.77
	last	7	2.15	then	3	1.33
	third	7	2.15	first	1	0.44
	then	5	1.53	firstly	1	0.44
	finally	3	0.92	first of all	1	0.44
	next	2	0.61	lastly	1	0.44
	secondly	2	0.61	secondly	1	0.44
	at this point	1	0.31			
	first	1	0.31			

Categories	NNSW			NSW		
	Individual DCs	Tokens	%	Individual DCs	Tokens	%
	first of all	1	0.31			
	here	1	0.31			
	Subtotal	40	12.27	Sub-total	12	5.31
Exemplification and restatement	for example	29	8.90	for example	11	4.87
	for instance	4	1.23	namely	3	1.33
	in other words	1	0.31	for instance	1	0.44
	Subtotal	34	10.43	Sub-total	15	6.64
Concession and contrast	but (as against)	38	11.66	but (as against)	24	10.62
	although	13	3.99	however	9	3.98
	on the other hand	13	3.99	yet	6	2.65
	still	9	2.76	still	5	2.21
	however(as against)	5	1.53	although	5	2.21
	while	2	0.61	though	5	2.21
	even though	1	0.31	while	4	1.77
	in contrast	1	0.31	even though	2	0.88
	instead	1	0.31	on the other hand	2	0.88
	on the contrary	1	0.31	instead	1	0.44
	though	1	0.31	on the contrary	1	0.44
whereas	1	0.31	whereas	1	0.44	
Subtotal	86	26.38	Sub-total	65	28.76	
Cause and result	because	39	11.96	because	16	7.08
	so	11	3.37	due to	8	3.54
	therefore	7	2.15	therefore	6	2.65
	as a result	4	1.23	so	5	2.21
	thus	3	0.92	as a result	3	1.33
	accordingly	3	0.92	then	2	0.88
	consequently	3	0.92	thus	2	0.88
	or (=otherwise)	2	0.61	accordingly	1	0.44
	then	1	0.31	aside from this	1	0.44
	due to	1	0.31	for	1	0.44
				for this reason	1	0.44
			hence	1	0.44	
Subtotal	74	22.70	Sub-total	47	20.80	
Summation	in conclusion	11	3.37	in conclusion	1	0.44
	all in all	1	0.31	in short	1	0.44
	anyway	1	0.31	in summary	1	0.44
	in short	1	0.31	overall	1	0.44
				to conclude with	1	0.44
Subtotal	14	4.29	Sub-total	5	2.21	
Stance	in fact	2	0.61	at least	3	1.33
	in reality	1	0.31	indeed	2	0.88
				in fact	2	0.88

Categories	NNSW			NSW		
	Individual DCs	Tokens	%	Individual DCs	Tokens	%
				actually in either case	1	0.44
					1	0.44
	Subtotal	3	0.92	Sub-total	9	3.98
Topic shift	-	-	-	-	-	-
Total		326	100.00	Total	226	100.00

As can be observed from Table 6, the two corpora exhibited different distribution of DCs in eight functional categories. DCs of *concession and contrast* were the most popular choice among the non-native students, 26.38% (n=86) of all the DCs identified, whereas those of *addition* were most used among the English-native speakers, 32.30% (n=73). In the NNSW, the DCs used appeared in the following frequency order: *concession and contrast* (26.38%), *addition* (23.01%), *cause and result* (22.70%), *enumeration and ordering* (12.27%), *exemplification and restatement* (10.43), *summation* (4.29%), *stance* (0.92%), and *topic shift* (null). In the NSW, DCs of *addition* account for 73 tokens or 32.30%, followed by those of *concession and contrast* (28.76%), *cause and result* (20.80%), *exemplification and restatement* (6.64%), *enumeration and ordering* (5.31%), *stance* (3.98%), *summation* (2.21%), and *topic shift* (null).

Noticeably, within the eight functional categories of DCs, the native speakers used DCs of *addition*, *concession and contrast*, and *stance* in argumentative writings more frequently than the learners. The latter, on the other hand, used DCs of *enumeration and ordering*, *exemplification and restatement*, *cause and result*, and *summation* more. DCs of *topic shift* such as *incidentally*, *by the way*, and *by the by* were not found in both corpora.

The presence of a large number of DCs marking *concession and contrast* in both non-native and native speakers' texts was actually not surprising. It reflected the inherent nature of the argumentative genre, which requires writers to make an argument with some supporting and opposing ideas of an issue. In argumentative essays, the writers have to take a stand as they are trying to persuade the reader to adopt or change certain beliefs or behavior. The high number of

concession and contrast devices therefore suggested that the texts produced involved the writers' frequently making opposing standpoints. Among the DCs of *concession and contrast*, *but (as against)* was the most prominently used DC in both corpora.

Compared to *concession and contrast*, DCs of *addition* seemed to be used with a more significant degree of difference by both groups. Native speakers apparently used these DCs much more frequently than the learners. Especially, some DCs such as *also*, which are used solely as conjunctive adverbials, were much more popular among native speakers. This may be due to the fact that the learners were less familiar with the use of additive DCs in such a pattern.

Functionally, both non-native and native speakers similarly employed additive DCs to add to the argument another similar point either with equivalent importance (e.g. *and, also, too*) or with reinforcing importance (e.g. *in addition, additionally, moreover, furthermore*). Apart from making an addition, the two groups also used the additive DCs to express alternative relations (e.g. *or*). The DCs with such a semantic function can elaborate ideas and provide support for the previous ideas with detailed information, as exemplified in (1) and (2) below.

(1)

[02: NNS] “*When they have freetime **or** they don't have to learn, I believe that they don't read books, play football and make them homework.*”

(2)

[23: NS] “*Today, we know within seconds, **or** in the case of the space-shuttle challenger explosion, we know live immediately.*”

Additionally, as far as the DCs of *enumeration and ordering* are concerned, the non-native speakers apparently showed a stronger tendency than native speakers to explicitly number their arguments. The non-native speakers also demonstrated a wider range of individual DCs in this category (11 individual DCs in

NNSW and 7 individual DCs in NSW), and higher frequency in the use of these DCs (40 tokens and 12 tokens, respectively). However, the two groups used these devices similarly to order the main points they wanted to make in their argumentative writing, as respectively shown in the examples (3) and (4) below taken from a learner's and a non-native speaker's.

(3)

[18: NNS] *“I agree that computer games should be banned in universities because they are disadvantageous in several ways. **First**, some games are involved in violence or terrorism... **Second** many online games are costly ...**Third**, spending too much time on playing games reduce time spent on study...**Last**, it is impossible for students to catch up with the latest technology on computer game.”*

(4)

[01: NS] *“The mental effect of computers is two-fold. **Firstly**, computers have made mathematical computations so easy to do... **Secondly**, computers have sometimes become more reliable than people.”*

As for the DCs of the *exemplification and restatement* category, both non-native and native speakers used these DCs in the same way to express exemplificative relations, clarifying information stated in the main points in form of examples. *For example* was the exemplificative DC that was most frequently used by the two groups.

With respect to the DCs of the causal and resultative category, the two groups of speakers basically demonstrated a relatively consistent pattern of DC use. They both most frequently employed causal DCs like *because* to indicate some form of causal relation, in which the presupposing sentence expresses the cause-effect and reason. However, unlike the learners, native speakers more frequently opted for *due to*

to indicate a causal relation rather than using DCs like *so*. This may be owing to the learner's little exposure to formal texts in which *due to* more frequently occurs.

Among the DCs of *summation*, it is not surprising that summative devices such as *in conclusion*, *all in all*, *in short* were much more frequently used by the non-native speakers than the native speakers. Similar to enumerative DCs (e.g., *first*, *secondly*, *finally*), these DCs were also employed by the non-native speakers to mark the sequences or to signal temporal relations in their writing. Especially, *in conclusion* was the summative DC mostly used by the non-native speakers to point out a conclusion part or paragraph in their essays while the native speakers hardly used this type of DCs when writing.

For the *stance* category of DCs, the two groups used this DC category in the same way to emphasize their attitudinal points in the argument. However, the non-native speakers used fewer DCs of *stance* than the native speakers. The very few stance DCs used are *in fact* and *in reality* while the native speakers used not only the variants of the DC *in fact* such as *actually* and *indeed*, but also other stance DCs such as *at least*, *in either case* etc. Generally speaking, the native speakers showed more variation of stance DCs used.

In certain cases, the stance DCs such as *in fact* seemed to be used in an adversative sense, being a substitute for *but*, as shown in the excerpt below:

(5)

[04: NNS] “*In my opinion, I think love is a beautiful thing, **in fact**, it doesn't make student to perform badly on a academic tasks but sometime it might make you study better.*”

4.2.2 Functions of Most Frequent Discourse Connectors

Based on the frequency of individual DCs employed by the Thai learners, *and*, *but*, *because*, and *for example* were used by the learners with very high frequencies. Thereby, these DCs were the targets to be compared and discussed in

terms of their functions. It should be noted that grammatical errors found in the excerpts shown are in their originals.

4.2.2.1 And

Functionally, as stated in McCarthy (1991), *and* has *additive*, *adversative*, *causal* and *temporal* senses of meaning depending upon contextual information. In this study, it was found that the Thai EFL learners used *and* in the *additive*, *causal* and *temporal* senses while the adversative sense of *and* did not appear at all in the learners' writing.

In the additive sense, *and* was predominantly used as a DC to denote: (a) an addition of a stance clause, (b) an addition of a new cause or reason, (c) an addition to the list of rhetorical questions, (d) an addition to a list of major supporting details or suggestions in the last concluding paragraph, (e) an addition to a prior condition in *if-clause*, (f) an addition to the result clause in a conditional sentence, (g) an addition of details in a narrative, and (h) addition to a concessive clause or a subordinate clause with the concessive marker.

(a) *Addition of a stance clause*

The following excerpts demonstrate how the Thai learners used *and* to mark an addition of a clause expressing their attitude towards or a stance on the issue discussed.

(6)

[04: NNS] "*I think love in school is a good moment **and** I believe that everyone used to in love and passed it.*"

(7)

[21: NNS] "*Finally, you should spend time for you self. You should have your favorite hobby that you can do it in your free*

*time. I think your favorite hobby will help you to understand yourself, **and** you will enjoy yourself.”*

Shown in the excerpts (6) and (7), *and* usually co-occurred with other stance markers (e.g. *I believe* and *I think*) to explicitly mark an addition of the writers' personal opinions towards the information aforementioned. For instance, in Excerpt (6), adding to the opinion previously stated, the writer expressed the belief that everyone must have been in love and had love experience. Similarly, in Excerpt (7), an opinion was added that besides self-understanding, hobbies could also drive ones to enjoy lives.

(b) Addition of a new cause or reason

And in the following excerpts was used to mark an addition of a new cause to the prior cause. In Excerpt (8), there were two main causes given to forbidden computer games in universities. First, the games could affect students' behavioral imitation. Second, the games have disadvantages rather than advantages. So, the second cause was added to the first with *and* prefaced as a connector. In the same way, *and* in Excerpt (9) was used to mark an addition of the second cause to the one of having many female officers.

(8)

[08: NNS] *“In conclusion, I think the best way computer games should be forbidden in universities because computer games can make students bad **and** there are many disadvantage more than advantages.”*

(9)

[14: NNS] *“In the office, most people in the office are the women. Because they work very well, **and** they were diligent honest, responsible, attentive.”*

And also functioned as a connector marking an addition of a reason in support of the main idea. As in Excerpts (10)-(13), via *and*-prefaced clauses the

writers proposed new reasons to the prior reasons supporting why love in schools is either a disadvantage or an advantage.

In (10), the writer meant to convey that it is a disadvantage for female teens to have a child when they are still young and haven't finished school.

(10)

[03: NNS] *“Disadvantage of love in schools may be a big problem in Thai society. For instance, Thai teenagers have sexual relationship before suitable age. This case may have disadvantage to female teenagers which they have a child while they don't finish study, **and** an important thing is they are little old yet.”*

Also in (11), the disadvantage for teens to have love in schools is due to the reason that they are still young and may not be able to solve problems on their own.

(11)

[06: NNS] *“There are many reason that love in schools is not suitable. Although love is beautiful feeling, but love can make a person to be deeply hurt. Because of student are young, **and** sometimes they can not problems by themselves.”*

In (12) similar to (13), the writers meant to say that the advantages of love are making ones happy and being an important source of power to do things.

(12)

[03: NNS] *“However, love has advantage if you love correctly. For its advantage is it makes you be happy **and** it is an important powerful for you too.”*

(13)

[07: NNS] *“There are three kinds of love in school are love between teacher and student, love between friend and friend, and love between partner. I know you ever have love in your school or your university at present. You not only have love from your friends but also you have love from your partner. Love from your lover makes you are happy and cheerful very much **and** it also encourages you to do everything.”*

In the following excerpt, *and* was also used to add a reason to argue for the main idea or to provide supporting details.

(14)

[04: NNS] *“First, I think love is inspiration. Many people use love that make inspiration to do something. Love make us want to develop ourselves for someone. You want to come school everyday to meet someone who you like. You want to study hard to make attractive **and** if you good study you can help one. Love will make you try to do everything to one interesting in you.”*

(c) Addition to the list of rhetorical questions

Excerpt (15) shows *and* marking an addition of a rhetorical question to the series whereby the writer apparently engaged the reader into thinking about the issue of love in school.

(15)

[04: NNS] *“Do you have love in school? **And** How do you think about love in school? Suitable or unsuitable?”*

(d) Addition to a list of major supporting details or suggestions in the concluding paragraph

All the following excerpts, (16)-(18), were concluding paragraphs from three essays. *And* found in these paragraphs was used to mark the last major idea or suggestion for a summation.

In Excerpt (16), the writer summed up the arguments in favor of love in school with *and* prefacing the last reason.

(16)

[06: NNS] *“All of reason that love is not suitable in schools will be students are young, student don’t have enough time for studying, **and** student will waste a lot of money. If you want to have love in school, you should try to decide carefully.”*

Likewise, in (17) and (18), with *and*-prefaced clauses the writers offered practical suggestions related to teen love.

(17)

[16: NNS] *“At this point, what should be the right solution to this problem? As mentioned some where the buzzword is “education”. Wouldn’t it be more effective if we train teachers on these issues and encourage them to pass on their knowledge to students. Not just feed students with academic contents of violence and sex, teachers also have to demonstrate how evil it would be if people get involved **and** sexual intimidation could be good alternatives for teachers to display or show to students. These are some of the remarks drawn to end this essay.”*

(18)

[24: NNS] *“If you love in school. For example, your boyfriend and you help to study before exam, you can spend time with your friends and your boyfriend are equally, you should not be*

*too much serious with love, **and** you should try to learn love is giving without receiving.”*

(e) Addition to a prior condition in ‘if-clause’

Excerpts (19) and (20) manifest a pattern of *and* embedded in an if-clause, adding another condition to the conditional predecessor.

(19)

[07: NNS] *“When you and him stay together in his dormitory, he can do bad thing with you. For example, when you and him stay together, it is easy for making love with you. It is very dangerous if you are a student **and** you are studying in the school, but you are pregnant.”*

(20)

[09: NNS] *“There are many disadvantages on media that everybody can see. For example, if they are student, they use too much time for media **and** they forget to do home work as a result they fail for the exam.”*

(f) Addition to the result clause in a conditional sentence

Similar to *and* marking an addition to a prior condition in an if-clause, shown below in Excerpt (21), *and* was also deployed to preface an additional result clause in the if-clause.

(21)

[11: NNS] *“All of reasons that love is best thing for someone and bad thing for another one. It depend on student. If student want to control their love, they must realize that **and** student apply it in your life.”*

(g) *Addition of details in a narrative*

Exemplified in (22) and (23), *and* in this case was apparently used to maintain the flow of the on-going narration. To the Thai learners, without the DC the story would have sounded abrupt.

(22)

[13: NNSa] *“When I grew up, I go to school. I met people who is the boy. I fell in love **and** I love him so much.”*

(23)

[13: NNSb] *“One day, He met another girl that she better me. He break off our friendship. I’m very sad and cried every day about 3 month. My mother worry about me **and** she taught me to love. After that she warn me to met another boy.”*

(h) *Addition to a concessive clause or a subordinate clause with the concessive marker*

In (24), *and* was used to mark an addition of a concessive clause whereby the writer apparently conceded that there are weak points of teen love.

(24)

[24: NNS] *“Although, love in school is not suitable, **and** there are many weak points for students, everybody still want love. I believe that love in school is not always suitable.”*

Apart from marking an addition of some kind as previously discussed, *and* was also used to denote cause and result relations, marking (a) a result clause and (b) a causal clause.

(a) Marking a result clause

Used by the learners to mark a result clause, *and* was used in (25) to mark the result of a belief towards men and the result of being a couple and helping each other to study in (26), the result of wonderful student life in (27), and the result of spending most of the time with a lover in (28).

(25)

[17: NNS] *“In the past, There are many things that women and men were treated unequally. They believe the man is the creator **and (so)** women must follow the men.”*

(26)

[19: NNS] *“Second, when they have the test, they can help each other to read the books and tutor each other, **and (so)** perhaps it can make their grades up. Next, normal of teenagers, when they have problem, they don’t want to tell or consult their parents.”*

(27)

[21: NNS] *“Perhaps, you will get money from your hobby. A student life is very wonderful, **and (so)** you should enjoy yourself for being the student life.”*

(28)

[24: NNS] *“Second, love in school can make your relationship between your friends and you far. When you have a boyfriend, you will spend almost time with him, **and (so)** there is not a time for your friends to talk, to play, to share idea, and to do special activities together. Thus, your relationship between your friends and you are not close anymore.”*

Apparently, as shown in the excerpts above *and* was used in lieu of *so* to express causal relations between the preceding and the following clauses.

(b) Marking a causal clause

And was sometimes also used by the learners as a substitute for the causal connector *because* to indicate a reason for a preceding main clause. As in (29), many female activists protest against some politic policy because they want to make it work for everyone.

(29)

[17: NNS] *“Some country women protest politic policy that they think it is unfair for them. Many female activists protest it **and (because)** They want to improve it to be suited for everyone. For example, the women can’t elect the candidates.”*

Similarly, *and* in (30) was also used in lieu of a causal marker. The writer suggested that love can make you happy and sad because you will not have time to live your student life.

(30)

[21: NNS] *“Although love will make you to be happy, it can make you to be sad in the same time, **and (because)** you will not have enough time to spend your student life.”*

Finally, apart from additive and causal senses, *and* was also used by the learners to mark a temporal sense, creating a link with a new supporting paragraph or new major supporting idea, as in (31), or making a sequential addition, as in (31).

(30)

[06: NNS] *“**And** the last reason that love in school is not suitable is student will waste a lot of money. If you*

have your lover , you will want to give good things for your lover.”

(31)

[24: NNS] *“First, love in school can make your result of exam bad. If you love someone, you will be attractive at him all time such as what he is doing, where he is going, or what things he likes. **And** then, you won’t pay attention whenever teachers teach and understand that lessons. At last, your result is bad.”*

While the learners tended to use *and* as a coordinator to express the senses previously discussed, the native speakers often used *and* both in form of a coordinator and a conjunctive adverbial to express all the four senses stated in McCarthy (1991): *additive, causal, temporal, and adversative* senses as shown in (32)-(35) respectively.

(32)

[09: NS] *“Many larger factories and office building still remain downtown. **And**, the executives and business people rely on commuting to and from the city daily without taking advantage of what was once, a thriving neighborhood, and still could be!” (additive)*

(33)

[18: NS] *“Finally, I asked him to put my sandwich in a zip-lock bag, **and** I never had a smelly locker again.” (causal)*

(34)

[09: NS] *“While the rich got richer, they began building specialized shops and strip malls outside of the city limits. **And**, the more wealthy moved from the inner city (with help from the*

invention of the automobile) to the suburbs where they could keep a distance from the busy inner city.” (temporal)

Unlike the learners, the native speakers also occasionally used *and* to mark an adversative clause, suggesting opposition or contrast to the preceding clause, shown in Excerpt (35). Similar to an example taken from McCarthy (1991), in Excerpt (36), the marker was apparently used as a substitute for *but*.

(35)

[09: NS] *“Throughout history, the trend is for the rich to get richer **and** the poor remain poor.” (adversative)*

(36)

*“I’ve lived here for ten years **and** I’ve never heard of that pub.”*

(McCarthy, 1991)

4.2.2.2 But

But was used by the Thai EFL learners as a connector marking (a) a contrastive fact, (b) a contrastive stance, (c) a concession, as well as (d) an addition.

(a) Contrastive facts

The learners mostly used *but* to mark direct factual contrast between preceding and following clauses, as shown in Excerpts (37)-(39).

(37)

[21: NNS] *“For example, sometimes you want to meet your boyfriend or girlfriend, **but** they can not come.”*

(38)

[17: NNS] *“Some country doesn’t **but** many countries tend to treat between women and men equally.”*

(39)

[24: NNS] *“Today, you love him, **but** tomorrow you maybe love other.”*

(b) Contrastive stances

The relationship between segments conjoined by *but* has also been associated with the contrast of ideas or stances in the learners’ writing. As illustrated in (40)-(42), the writers employed *but* to preface a clause expressing an opposing idea to those previously stated.

(40)

[03: NNS] *“There are many students be in love in schools. I think that it is not a strange or wrong thing, **but** it is not suitable for primary and secondary students because they are children.”*

(41)

[02: NNS] *“So, I think love in school isn’t good if among teenager use unsuitable, **but** I think love is good if they have graduated from University.”*

(42)

[08: NNS] *“Nowaday, a lot of student like to play computer game **but** I think computer games are nonsense and crazy thing of students in universities.”*

(c) Concession

But was also used to introduce a concession in light of what is said in the previous clause. In this case, *but* appeared to be equivalent to those DCs such as *although*, *even though* and *though*.

(43)

[01: NNS] *“Love is only one thing, **but** many people find it.”*

(44)

[03: NNS] *“Love is beautiful and important thing for everyone, **but** sometimes it gives disadvantages to them too.”*

(45)

[10: NNS] *“Love is very important for everybody **but** in school is not suitable.”*

(46)

[13: NNS] *“On the other hand, I think love is a beautiful thing, **but** it can make you pain.”*

(d) Addition

Even though *but* typically expresses contrast of information in different segments, as used by the learners, sometimes it does signify an addition of information to the preceding clause. Shown in Excerpts (47)-(49), the information in *but*-prefaced clauses is added to that discussed in the prior clauses.

(47)

[07: NNSa] *“It is very dangerous if you are a student and you are studying in the school, **but** you are pregnant.”*

(48)

[07: NNSb] *“You not only have love from your friends **but** also you have love from your partner.”*

(49)

[12: NNS] *“Third, family life I think the women’s duty at home are more than the men, **but** at the same time, the women who have a full-time job especially housewife.”*

Similar to the learners, the native speakers used *but* to express four functions; namely, contrastive facts, contrastive stances, concession, and addition, as shown in Excerpts (50)-(53) respectively.

Excerpt (50) shows that the writer used *but* to present a new fact that flying takes only three hours, which is in contrast with driving. Within the same distance, the latter takes about thirty to thirty-five hours.

(50)

[12: NS] *“Travel times have been significantly shorten; for example, to drive from Michigan to California takes about 30-35 hours, **but** to fly the same distance takes about 3 hours.”*
(contrastive facts)

In Excerpt (51), the writer used *but* to mark an explicit turn of opinion, offering an opposing stance.

(51)

[24: NS] *“Within a few weeks, the excitement had died down and people had turned their attention to more recent news. **But** for me, this had been the start.”* (contrastive stances)

In Excerpt (52), *but* appeared to be equivalent to *although*, *even though* and *though*, marking a concession of what is previously said.

(52)

[23: NS] *“The examples on television are blown-up & exaggerated, **but** people get a general idea of different lifestyles.”*
(concession)

And lastly, in (53) once offering a solution to keep out the odor of smelly food with zip-lock bags in one paragraph, the writer subsequently used *but* to add other benefits of the zip-lock bags in the next paragraph.

(53)

[18: NS] *“There are also times when foods tend to take on the smells of other foods to which they are near. One solution would be to put the odorous food in a bag, but if that cannot be done for some reason (for example, you are going to serve it for a fancy dinner later), you can put the surrounding food in the bag, to keep the smell out. A third solution would be to bag everything!*

***But**, there are other uses for zip-lock bags. Where else can you put ice to hold on a swelling lip, without it melting and getting everything wet? And for traveling, these baggies are even better.” (addition)*

4.2.2.3 Because

Compared to other DCs, *because* was most frequently found in Thai EFL learners’ argumentative writing, closely followed by *but* and *and*. Leech and Svartvik (1994) pointed out that *because* expresses not just the cause-and-effect relationship but also reason-and-consequence relationship. That is to say, *because* can be used to signify cause as well as reason. Similar to native speakers, *because* was used by the learners as a subordinator to mark a cause-effect and a reason for a main idea or a supporting detail in their writing. However, both the Thai learners and the native speakers tended to use *because* to mark a reason more than a cause-effect, as illustrated in Table 7.

Table 7: The Use of *Because* by NNSW and NSW

Functions	NNSW		NSW	
	Tokens	%	Tokens	%
Cause-effect	6	15.4	6	37.5
Reason	33	84.6	10	62.5

It is evident that both Thai learners and native speakers tended to use *because* to state reasons more than causes. This is presumably due to the fact that argumentative writing calls for reason-giving much more than fact-stating. Additionally, according to Ying (2007), *because* used to describe a reason was easy to conceive and apply to many clauses by both non-native and native speakers of English.

The examples extracted from the Thai learners' writing below show how *because* was used as a linking device to express the learners' opinions or personal reasons and causes in support of the preceding main clause. Shown in (54) and (55), the content of the clauses beginning with *because* explains a reason and a cause respectively to that in the preceding main clauses.

(54)

[24: NNS] "*Love is wanted by everybody **because** it makes they happy.*" (reason)

(55)

[07: NNS] "*You will make your parents and your family feel very sad and disappointed with you. Then your future is worse **because** you do not finish your education.*" (cause-effect)

Shown in (56)-(57), the native speakers also used *because* in the same way as the learners.

(56)

[13: NS] *“Doctors are discovering that some undetectable strands of AIDS do exist. This has really scared people **because** they may have AIDS and not even know it.” (reason)*

(57)

[16: NS] *“However, others say the T.V. disrupts the “family dinner” and and diminished communication among family members **because** they would rather watch T.V. than talk with one another.” (cause and effect)*

4.2.2.4 For Example

For example was similarly used by Thai learners and English-native speakers to clarify information stated in previous clauses in the form of examples. However, an important difference between the two groups was that the Thai learners tended to use *for example* mostly sentence-initially, as shown in (58)-(59), whereas the native speaker used the DC both sentence-initially and medially, as a coordinator and a conjunctive adverbial, shown in (60)-(61) below.

(58)

[05: NNS] *“Anyway, in reality, women and men are still not treated equally nowadays. **For example**, in some parts of the world, women are treated as the second class people in the societies.”*

(59)

[08: NNS] *“On the other hand, some games there are advantages too. **For example**, playing computer games make them feel comfortable, enjoy, and fun.”*

(60)

[12: NS] *“Travel times have been significantly shorten; **for example**, to drive from Michigan to California takes about 30-35 hours, but to fly the same distance takes about 3 hours.”*

(61)

[37: NS] *“Aside from being able to store great amounts of info, I'm also able to process & to edit things quickly. **For example**, without the use of a computer I had to balance my checkbook once a month & had to do this w/ a calculator, a pen & a piece of paper.”*

Finally, unlike the learners, the native students also used *for example* to introduce a list of items illustrated, shown in (62).

(62)

[42: NS] *“There have even been forms of entertainment, **for example** videogames, made for this other form of entertainment.”*

4.2.3 Syntactic Distribution of Discourse Connectors in NNSW and NSW Corpora

In terms of syntactic distribution, the Thai learners tended to employ most of the 51 DCs found in their writing as conjunctive adverbials, modifying independent clauses or verb phrases, followed respectively by coordinators and subordinators. And the most preferable position for DCs used as conjunctive adverbials is the clause-initial position. Similarly, the native speakers also mostly used the 53 DCs found intra-clausally as conjunctive adverbials, closely followed by coordinators and subordinators, as presented in the table below.

Table 8: Frequency of DCs Based on Their Syntactic Distribution

Syntactic distribution	NNSW		NSW	
	Tokens	%	Tokens	%
Coordinators	83	25.46	59	26.11
Subordinators	57	17.48	34	15.04
Conj. Adverbials	186	57.06	133	58.85

% = ratio of frequency counts of an individual DC to the overall frequency of DCs found in NNSW and NSW

However, as shown in Table 9 below, some coordinating DCs which can also be used as conjunctive adverbials such as *but*, *and*, *or*, and *so* were often used by the learners interclausally as coordinators, rather than clause-initially as conjunctive adverbials. Other DCs such as *furthermore*, *for example*, *on the other hand*, *moreover*, *therefore*, *etc* were, on the other hand, restrictively used by the learners clause-initially as conjunctive adverbials. Additionally, as for conjunctive adverbials such as *however*, which can be used as a coordinator as well as a conjunctive adverbial in clause-initial, medial, and final positions, the learners actually used them more merely in the clause-initial position. In contrast, the native speakers used the conjunctive adverbial DCs in all the three positions in their writing. This apparently indicates that the learners had more limited knowledge of DCs distributable in more than one syntactic position.

Table 9: DCs Used as Coordinators and Conjunctive Adverbials in NNSW

Discourse connectors	Coordinator		Conj. Adverbial	
	Tokens	%	Tokens	%
But	38	100	0	0
Or	1	100	0	0
Or (=otherwise)	2	100	0	0
And	32	91.43	3	8.57
So	9	81.82	2	18.18

Discourse connectors	Coordinator		Conj. Adverbial	
	Tokens	%	Tokens	%
For example	0	0	29	100
On the other hand	0	0	13	100
Moreover	0	0	9	100
Therefore	0	0	7	100
However (as against)	0	0	5	100
For instance	0	0	4	100
Thus	0	0	3	100
Likewise	0	0	3	100
In other words	0	0	1	100
In contrast	0	0	1	100
Instead	0	0	1	100
On the contrary	0	0	1	100

% = ratio of frequency counts of an individual DC to the overall frequency of each DC which can be used as a coordinator and a conjunctive adverbial.

In the following section, the syntactic distribution of the most frequent DCs employed by the Thai learners and native speakers, i.e., *and*, *but*, *because*, and *for example*, will be discussed in further details.

4.2.3.1 And

Syntactically, *and* can be used both as a coordinator and as a conjunctive adverbial. However, the Thai learners used *and* as a conjunctive adverbial much less than the native speakers as shown in Table 10:

Table 10: The Use of *And* as Coordinators and Conjunctive Adverbials

Syntactic distribution	NNSW		NSW	
	Tokens	%	Tokens	%
Coordinators	32	91.43	31	79.49
Conj. Adverbials	3	8.57	8	20.51

Apparently, the learners were much more familiar with using *and* interclausally rather than clause-initially. So, for the learners the coordinating function of *and* seems to be the unmarked, more common function.

4.2.3.2 But

Although possible, the Thai learners did not use *but* as a conjunctive adverbial at all in their writing while the native speakers used *but* both in form of a coordinator and a conjunctive adverbial with similar degree of frequency as illustrated in Table 11:

Table 11: The Use of *But* as Coordinators and Conjunctive Adverbials

Syntactic distribution	NNSW		NSW	
	Tokens	%	Tokens	%
Coordinators	38	100	14	58.33
Conj. Adverbials	0	0	10	41.67

One point worth noting is the Thai EFL learners' preference over the use of *and* and *but* as coordinators. This is arguably due to the fact that the Thai learners often have exposure only to the two DCs being used as coordinators rather than as adverbials in classroom contexts. In fact, similar to Lai (2008), Taiwanese students also heavily relied upon coordinators in their writing. It was argued that these DCs are basic forms of conjunctions and their acquisition often takes place at an early stage. Additionally, Rutherford (1997, as cited in Lai, 2008) also claimed that a coordinate structure is easier for language users to process because it merely involves attaching one proposition to the other.

Furthermore, it was found that the Thai EFL learners often used *but* as a coordinator in concurrence with an *if*-clause, as in (63) and (64).

(63)

[02: NNS] *“In conclusion, I think love is good and bad. If they use the trust about love, maybe they have a good life, **But if** they use love to contrast, maybe they have a bad them life.”*

(64)

[10: NNS] *“In conclusion, love in school is not suitable **but if** you love to right way you will fall in love and meet to real lover and real love.”*

The fact that the learners often used *but* with an *if*-clause seems to be attributed to the influence of casual or spoken Thai, which allows *but if*. Unlike the learners, the native speakers, on the other hand, preferably used the conjunctive adverbial *however* in place of *but* with an *if*-clause as in (65)-(67).

(65)

[01: NS] *“Granted, it is the person who “told” the computer what to do that truly made the error; **however if** that person knew what he should do, or better stated “was able to do with a computer”, he would not have erroneous answers.”*

(66)

[27: NS] *“As a world of many scattered nations, conflict is inevitable. **However, if** we all have one bond- democracy- then maybe together, we can learn to understand one another, and work towards a happier world for all.”*

(67)

[33: NS] *“For example, drugs are a grave matter in their own, however, most people do not think in terms of drugs as a possible suicide. **However, if** a person begins to inject random needles in the body he/she is not only in danger of*

the drugs effect, but the possibility of contracting the AIDS virus.”

4.2.3.3 Because

In standard written English, *because* can be used only as a subordinator marking a dependent from a main clause. However, the Thai learners often ungrammatically used the DC both as a subordinator and a conjunctive adverbial, as shown in Table 12.

Table 12: The Use of *Because* as Subordinators and Conjunctive Adverbials

Syntactic distribution	NNSW		NSW	
	Tokens	%	Tokens	%
Subordinators	33	84.62	16	100
Conj. Adverbials	6	15.38	0	0

Shown below in (68) and (69) are the excerpts from the Thai learners' writings to illustrate how *because* is respectively used as a subordinator and ungrammatically as a conjunctive adverbial producing fragments.

(68)

[02: NNS] *“They must have boyfriend or girlfriend **because** it make them feel good looking and smart guy.” (subordinator)*

(69)

[13: NNS] *“Love it make your grade is low. ***Because** you must waste of time from meeting boy friend or girl friend. It make you don't intend in classroom and don't understand in the lesson.” (conjunctive adverbial)*

4.2.3.4 For Example

For example can be used both as a coordinator and as a conjunctive adverbial in clause-initial, medial, and final positions. In this study, it was found that the Thai EFL learners used *for example* 100% as a conjunctive adverbial, as in Excerpt (70). The DC was found only in the clause-initial position, as shown in Table 13.

Table 13: The Use of *For Example* as Coordinators and Conjunctive Adverbials

Syntactic distribution	NNSW		NSW	
	Tokens	%	Tokens	%
Coordinators	0	0	1	9.09
Conj. Adverbials	29	100	10	90.91

(70)

[03: NNS] “*Love is beautiful and important thing for everyone, but sometimes it gives disadvantages to them too. **For example**, love from parents is pure love, so it cannot give bad things to them.*”

This affirms the fact that the Thai learners had relatively limited knowledge of similar DCs such as *furthermore*, *moreover*, and *therefore*, which can be used in more than one syntactic position.

Unlike the learners, the native speakers used *for example* both as a conjunctive adverbial and as a coordinator even though the latter was found only once, exemplified in (71).

(71)

[12: NS] “*Travel times have been significantly shorten; **for example**, to drive from Michigan to California takes*

about 30-35 hours, but to fly the same distance takes about 3 hours.”

4.3 Problems of Thai EFL Learners in the Use of Discourse Connectors

Regarding the problems the Thai EFL learners had when using DCs in their writing, this section discusses the types of common errors produced by the learners. The findings revealed both grammatical and functional errors. Most errors frequently found pertain to DCs with variants, missing verbs in finite clauses, fragments, run-ons, redundant use of the DCs, and semantic errors. As far as semantic or functional errors are concerned, the learners apparently did not have problems with the most frequent DCs but with a few DCs. For instance, the DCs such as *because*, *but*, and *in fact* were apparently not used in a typical sense.

In the excerpts illustrated below, only those errors which are the focus of the discussion will be highlighted.

4.3.1 Discourse Connectors with Prepositional-Phrase Variants

The Thai learners often had problems with DCs with prepositional phrase variants such as *because* vs. *because of*. While *because* is used as a subordinator followed by a clause, *because of* is used with a noun phrase. However, the Thai learners sometimes confused one for the other as shown in Excerpts (72) and (73).

(72)

[13: NNS] “*Love in school is not suitable for me *because a waste of time.*”

(73)

[06: NNS] “*There are many reason that love in schools is not suitable. Although love is beautiful feeling, but love can make a*

*person to be deeply hurt. *Because of student are young, and sometimes they can not problems by themselves.”*

In Excerpts (72), *because* was employed before a noun phrase to express the reason. The use of *because* in this excerpt is considered incorrect in that a noun phrase was used instead of a dependent clause. A better choice is to replace *because* with *because of*, or to change the noun phrase to a clause. In Excerpt (73), *because of* is ungrammatically used to substitute for *because*.

The two cases above display the writers’ confusion between *because* and its prepositional variety *because of*. Without conscious awareness of the grammatical restrictions involved in DCs with variants, the students will probably continue to use the DCs interchangeably, thus producing similar errors.

4.3.2 Missing Verbs in Finite Clauses

Thai EFL learners sometimes erroneously omitted a verb in a finite clause, producing an ungrammatical clause or sentence, as shown in (74).

(74)

[10: NNS] “*For example, When you love someone is not wrong but it __not suitable now.*”

An explanation for the learners’ erroneous omission of verbs in a finite clause, especially the verb *be* preceding adjectival complements, as shown in (74), might be given in relation to L1 interference. As suggested in Ubol (1993, cited in Na-ngam, 2005), Thai adjectives may be perceived as verbs due to their existence in the verb position of the sentence. For example, Thais say *Chan Suay*, in which *Chan* means the subject *I*, and *Suay* means *beautiful*. And unlike in English, Thai does not require the copula verb *be* before adjectives. The students who might not have been aware of this, therefore, produced errors in sentences with adjectival complements.

4.3.3 Fragments

Fragments were found when the learners tried to use DCs such as *when* and *because*.

(a) *When-clause*

The students' insufficient knowledge of complex-sentence formation in English seemed to manifest via the use or the absence of DCs such as *when*, as seen below.

(75)

[13: NNS] “*On weekend, usually you spend time with family, but ___you have partner you go everywhere with partner.*”

In (75), apparently the writer was contrasting the main clause “*On weekend, usually you spend time with family*” with another main clause “*you go everywhere with partner*” via a *but*-preface. The latter is contextualized or modified with “*you have partner*” without any subordinators such as *when/if*, thus being ungrammatical.

Unlike (75), in (76) the subordinator *when* is used redundantly and ungrammatically in concurrence with *but*, fragmentizing the clause it marks.

(76)

[10: NNS] “*Sometime, **when** they told the parent about lover, **but** it make them wrong and confuse in they’s parent look them in to negative way.*”

The two examples above reflect the learners' difficulties in forming complex sentences in English. Not only have they not yet mastered such complex sentence formation, they seemed to also transfer the Thai style into their English writing. As pointed out in Ong (1988), oral culture such as Thai is often characterized by expression being redundant and successive or additive rather than subordinative.

(b) Because-clause

Similar problems were also found as the students used the DC *because*. In Excerpts (77)-(80), the clauses led by *because* ungrammatically stand alone, making the DC a conjunctive adverbial rather than a subordinator.

(77)

[02: NNS] “*Now day, teenages want to love girlfriend and boyfriend. *Because they think it help them about learn but I don’t agree with them.*”

(78)

[02: NNS] “*Now day, teenages want to love girlfriend and boyfriend. *Because they think it help them about learn but I don’t agree with them.*”

(79)

[13: NNS] “*Love it make your grade is low. *Because you must waste of time from meeting boy friend or girl friend. It make you don’t intend in classroom and don’t understand in the lesson.*”

(80)

[14: NNS] “*It also has many women in the war. They can fight with men. They can shot the guns. Many women work at Police station too. *Because they can help the police man in the event about women victims.*”

4.3.4 Run-ons

From Excerpts (81)-(84), the learners produced sentences with comma splices, making overly long or run-on sentences in their paragraphs, attributable to the Thai writing style.

(81)

[02: NNS] “*They don’t have money, family can give money with them, **but** girlfriend or boyfriend don’t give money some family.*”

(82)

[02: NNS] “*Love in schools is not suitable, **but** I’m not meaning, love is bad, I don’t supporting to love in school because it make them don’t have a good grade.*”

(83)

[19: NNS] “*The school students are quite young, it is true, **but** they can think and differentiate what is right or wrong.*”

(84)

[02: NNS] “*Their family help them for everything. For example they don’t understand to learn, family can help them. They have many problem, family can them some advice. They don’t have money, family can give money with them, **but** girlfriend or boyfriend don’t give money some family.*”

4.3.5 Redundant Use of Discourse Connectors

The excerpts below illustrate how redundantly some DCs were used by the learners in their writings.

In Excerpt (85), *but* is redundantly used in concurrence with *on the contrary* to create an adversative relation between expressions.

(85)

[16: NNS] “*The problem is not with the seeds **but, on the contrary,** with the soil.*”

In Excerpt (86), the learner produced a short paragraph using several DCs. The DC *when* is again used in concurrence with *but* and *because*. As suggested by Bennui (2008), the wordiness or redundancy style of Thai writing often appeared in Thai learners' written English. In Thai paragraph or essay writing, the redundancy of words, phrases or sentences is used to motivate the readers to discover the topic of the writing. However, in English this style confuses the readers. The language style level indicated cross-linguistic discourse influence.

(86)

[10: NNS] *"First, low grade is important thing for student in school **because** a student will be use grade enter to university. They are many problem that make to low grade. For example the problem in family the children usually have a problem with a parent **because** they don't understand them. Sometime, **when** they told the parent about lover, **but** it make them wrong and confuse in they's parent look them in to negative way. The second, they don't come to the class or the school they are many thing to make the children don't come to the class or the school. For example, **when** you has a lover you want to stay with him or her every time **because** it is first love. You want to go every place with your lover but the children doesn't make. The children no more time unless on Saturday and Sunday. When they have a little free time they will be skip to the class for them lover. The last, have sex is not very suitable **because** you will not meet to real lover."*

Apart from *when*, *but* was also often used redundantly by the learners in concurrence with other connectors such as *although* and *even though*, as shown in (87)-(92).

(87)

[04: NNS] “**Although** people think love in school is not suitable ***but** for me I think love is not suitable or unsuitable as a result we behave ourselves.”

(88)

[06: NNS] “**Although** love is beautiful feeling, ***but** love can make a person to be deeply hurt.”

(89)

[14: NNS] “**Although** women and men are equal treated, ***but** I don’t believe that the men don’t impose on the women.”

(90)

[11: NNS] “**Although**, student in school maybe love someone each other ***but** I think it is a good thing if they realize that.”

(91)

[04: NNS] “**Although**, sometime end of love isn’t beautiful ***but** thing come back is friend.”

(92)

[04: NNS] “**Even though** your end of love is happy or unhappy, ***but** one thing you receive from it, is experience.”

Obviously, the redundant use of the DCs can partly be attributed to the influence of their native tongue, which permits such constructions as *Although ...*, *but....* Additionally, apart from the influence of their native language and its writing style as discussed previously, according to Halliday and Hasan (1976), the learners were apparently not aware that *but* contains adversative meaning within itself and the

structure cannot be both hypotactic and paratactic, indicating both subordinating and coordinating relationships, at the same time.

4.3.6 Semantic Function Errors

Some DCs were used by the Thai learners as a substitute for others in a typical sense, as shown in Excerpts (93) and (94).

(93)

[04: NNS] “*In my opinion, I think love is a beautiful thing, **in fact**, it doesn’t make student to perform badly on a academic tasks but sometime it might make you study better.*”

(94)

[07: NNS] “**However**, love is the best thing in life, love in school is not suitable for me.”

In (93), the stance DC *in fact* seemed to be used in an adversative sense, being a substitute for *but*. On the other hand, in (94) *however* was used in a concessive sense, being a substitute for *although*.

4.4 Summary of Research Findings

Research question 1: Which individual DCs are frequently used by Thai EFL learners and English-native speakers?

There were 326 DCs found in the non-native speakers’ writings and 226 in the native speakers’ ones. The overall frequency of DC occurrences in the NNSW was higher than that in the native speakers’. 51 and 53 individual DCs were employed in the NNSW and the NSW Corpus respectively. Both non- and native speakers of English relied on a small set of DCs when producing their argumentative compositions. Although different in the percentage of use, both native and non-native

speakers shared a few high frequent DCs such as *and*, *but*, *because*, and *for example*. The DCs like *also*, *however*, *due to*, *yet*, and *though* were infrequently shared by the two groups and much less found in the NNSW Corpus.

Research question 2: How are the DCs used by the two groups in terms of semantic functions and syntactic distribution?

Research Question 2 aimed to examine whether Thai EFL learners and English native speakers used DCs dissimilarly in terms of semantic-functional categories, functions, and syntactic distribution.

With respect to eight semantic-functional categories, DCs of *concession and contrast* were the most popular choice among the non-native students whereas those of *addition* were most used among the English-native speakers. Noticeably, the native speakers used DCs of *addition*, *concession and contrast*, and *stance* in argumentative writings more frequently than the learners. The latter, on the other hand, used DCs of *enumeration and ordering*, *exemplification and restatement*, *cause and result*, and *summation* more. DCs of *topic shift* were not found in both corpora.

With regard to semantic functions of the four DCs (i.e., *and*, *but*, *because*, and *example*), both native and non-native speakers used *and* in additive, causal, and temporal senses, but *and* in adversative sense only appeared in NSW. For the additive sense, *and* denoted (a) an addition of a stance clause, (b) an addition of a new cause or reason, (c) an addition to the list of rhetorical questions, (d) an addition to a list of major supporting details or suggestions in the last concluding paragraph, (e) an addition to a prior condition in ‘if-clause’, (f) an addition to the result clause in a conditional sentence, (g) an addition of details in a narrative, and (h) addition to a concessive clause or a subordinate clause with the concessive marker. For casual sense, *and* marked (a) a result clause and (b) a casual clause. For the temporal sense, *and* marked a link with a new supporting paragraph or new major supporting idea. *But* was used by the two groups as a connector marking (a) a contrastive fact, (b) a contrastive stance, (c) a concession, as well as (d) an addition. Similar to native speakers, *because* was used by the learners to mark a cause-effect and a reason for a

main idea or a supporting detail in their writing. *For example* was similarly used by Thai learners and English-native speakers to clarify information stated in previous clauses in the form of examples.

In terms of syntactic distribution, the Thai learners tended to employ most of the 51 DCs found in their writing as conjunctive adverbials, modifying independent clauses or verb phrases, followed respectively by coordinators and subordinators. And the most preferable position for DCs used as conjunctive adverbials is the clause-initial position. Similarly, the native speakers also mostly used the 53 DCs found intra-clausally as conjunctive adverbials, closely followed by coordinators and subordinators. However, coordinating DCs which can also be used as conjunctive adverbials such as *but*, *and*, *or*, and *so* were often used by the learners interclausally as coordinators, rather than clause-initially as conjunctive adverbials whereas some DCs such as *furthermore*, *for example*, *on the other hand*, *moreover*, *therefore*, etc. were restrictively used by the learners clause-initially as conjunctive adverbials. Differently, the native speakers used the DC as a conjunctive adverbial covering all the three positions in their writing.

Research question 3: What problems do Thai learners have when using DCs in their writing?

Regarding the problems the Thai EFL learners had when using DCs in their writing, the third question addressed the types of common errors produced by the learners. Both grammatical and functional errors were discovered in the study. Most grammatical errors frequently found deal with DCs with variants, missing verbs in finite clauses, fragments, run-ons, redundant use of the DCs, and semantic errors. Apparently, the learners did not have problems with the most frequent DCs but with a few DCs. Plausible causes of the problems were given in relation to insufficient knowledge of complex-sentence formation, unawareness of grammatical restrictions of DCs with variants, L1 interference, written Thai style transfer, and oral culture influence.

CHAPTER 5

SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

This chapter is allotted into three major parts. Section 5.1 summarizes the research findings about the use of discourse connectors in argumentative writings composed by Thai EFL college learners and English-native speakers. Section 5.2 outlines limitations and implications of this study, including methodological implications and teaching suggestions on how to assist EFL learners in mastering more complex functions of discourse connectors in written discourse. Section 5.3 states the directions for further research.

5.1 Summary of the Study

In this corpus-based study, the use of DCs in argumentative essays composed by Thai EFL learners and English-native speakers has been investigated. The main purposes of the DC investigation were threefold. One was to determine individual DCs frequently used in the academic writings of non- and native speakers of English. Second was to explore whether and how these two groups employed the DCs differently in terms of functions and syntactic distribution. The other purpose was to scrutinize the Thai EFL learners' problematic areas in using DCs. Thus, on the basis of the research purposes, this study was narrowed down to five aspects; namely, the frequency of DC occurrences, functions, syntactic distribution, and problems of using DCs in writing.

The data obtained were 44 argumentative compositions: 24 written by third-year English major students at Thaksin University, Songkhla and 20 written by English-native speakers and taken from Louvain Corpus of Native English Essays (LOCNESS). According to the taxonomy of DCs adapted from Halliday and Hasan

(1976), Biber et al. (1999), and Cowan (2008), 140 DCs were identified and classified into eight semantic-functional categories: (1) addition, (2) enumeration and ordering, (3) exemplification and restatement, (4) concession and contrast, (5) cause and result, (6) summation, (7) stance, and (8) topic shift. After the data collection, each composition was computerized and examined sentence by sentence. The DCs found in the two corpora were identified, counted and analyzed.

Quantitative results revealed that the presence of DCs in the NNSW was higher than that in the native speakers'. Although different in the percentage of use, both native and non-native speakers shared a few high frequent DCs; namely, *and*, *but*, *because*, and *for example*. In terms of individual DCs, *because*, *but*, *and*, and *for example* were most intensively deployed by the Thai learners, compared to the use of *although*, *though*, *on the other hand*, *due to*, etc. This is partly due to the fact that the learners had more exposure to and familiarity with the use of some common DCs (e.g., *and*, *but*, *because*) probably as substitutes for those less-preferable DCs.

On the qualitative dimension, when comparing the use of *and*, *but*, *because*, and *for example* in terms of their semantic functions, the two groups similarly used *and* to express additive, causal and temporal functions while the adversative function was only found in the NSW. For the additive sense, *and* was used to denote (a) an addition of a stance clause, (b) an addition of a new cause or reason, (c) an addition to the list of rhetorical questions, (d) an addition to a list of major supporting details or suggestions in the last concluding paragraph, (e) an addition to a prior condition in 'if-clause', (f) an addition to the result clause in a conditional sentence, (g) an addition of details in a narrative, and (h) addition to a concessive clause or a subordinate clause with the concessive marker. For the causal sense, *and* was often used by the Thai learners as a substitute for *so* and *because* to mark (a) a result clause and (b) a casual clause respectively. For the temporal sense, *and* marked a link with a new supporting paragraph or a new major supporting idea. Like the native speakers, *but* was used by the learners as a connector marking (a) a contrastive fact, (b) a contrastive stance, (c) a concession, as well as (d) an addition. By the two groups, *because* was used to mark *cause-and-effect* and *reason-and-*

consequence relationships in their writing. *For example* was similarly used by the two groups to clarify information stated in previous clauses in the form of examples.

With respect to the eight semantic-functional categories, DCs of *addition* were most used among the English-native speakers. On the contrary, those of *concession and contrast* were the most popular choice among the Thai learners frequently making opposing standpoints. This also reflects the inherent nature of the argumentative genre which requires the writers to make an argument with some supporting and opposing ideas of an issue.

In terms of syntactic distribution, the Thai learners tended to employ most of the 51 DCs found in their writings as conjunctive adverbials, modifying independent clauses or verb phrases, followed respectively by coordinators and subordinators. And the most preferable position for DCs used as conjunctive adverbials was the clause-initial position. Similarly, the native speakers also mostly used the 53 DCs found intra-clausally as conjunctive adverbials, closely followed by coordinators and subordinators. Nonetheless, the most striking case was that coordinating DCs which can also be used as conjunctive adverbials (e.g. *but, and, or, and so*) were often used by the learners interclausally as coordinators, rather than clause-initially as conjunctive adverbials whereas some DCs such as *furthermore, for example, on the other hand, moreover, and therefore* were restrictively used by the learners clause-initially as conjunctive adverbials. Unlike the learners, the native speakers used the DCs as a conjunctive adverbial covering all the three positions in their writing. This apparently indicates that Thai EFL learners were much more familiar with the typical use of DCs, associating them with clause-linking devices, and they needed be made more aware of using DCs intra-clausally to link states of affairs.

Lastly, the problems the Thai EFL learners encountered when using DCs in their writing were both grammatical and functional errors dealing with DCs with prepositional-phrase variants (e.g. *because/ because of*), missing verbs in finite clauses, fragments in *when*-clause and *because*-clause, run-ons, redundant use of the

DCs (e.g. *because, when, but, although*), and semantic errors (e.g. *in fact, however*), part of which can be attributed to the influence of their native language.

5.2 Limitations and Implications of the Study

Since this study was only carried out with a small number of compositions produced by a particular group of EFL learners, generalization of its findings to the broader population of Thai EFL learners or those at a more advanced level must be made with considerable care.

With regard to pedagogical implications, the findings from a comparison between an EFL learner corpus and a native corpus can fortify the understanding of the interlanguage of Thai EFL learners' written language. In other words, the findings enable ESL/EFL teachers and many others dwelling on linguistic paths to observe the native speakers' and learners' actual performance and to identify the learners' linguistic problems and priority treatments in a more systematic and apropos way, instead of relying merely on haphazardness about language lessons and activities especially in academic writing classrooms. With the examination of discourse connectors used by non-native and native speakers, we know which discourse connectors the learners and the native speakers tend to use and how they actually use them to cohere their texts. Knowing areas of the learners' erroneous use of discourse connectors, we, as language teachers, can ponder how to prevent them from repeating the same errors and how to help them master the use, thus enabling them to produce more coherent texts in standard English.

5.2.1 Implications for Teachers

To increase the efficacy of the use of discourse connectors in Thai EFL learners' academic writing, the following points should be of more concern especially to language teachers:

1. Focus should be placed on helping students to master the primary functions of frequently-used DCs like the additive function of *and*, the contrastive function of *but*, and so forth. Therefore, interactive activities that focus on discourse connectors and other local cohesive choices may also be useful (McCarthy, 1991).
2. Particular consideration should be given to the teaching of academic writing with reference to cohesion and coherence as important features.
3. Teachers should design lessons in which the learners are able to be exposed to the use of formal discourse connectors (e.g. *also*, *however*, *due to*, *though*) which the learners have hardly been taught in academic writing classrooms.
4. Teachers should engage the learners more in analyzing the discourse connectors in terms of functions and semantic differentiation between discourse connectors classified within the same category so that the learners can stepwise learn and internalize the way in which certain discourse connectors should be used in particular contexts.
5. To avoid superfluous use of coordinating discourse connectors in the clause-initial position only, it should be made clear to the learners that discourse connectors have syntactic distribution as a coordinator, a subordinator, and a conjunctive adverbial in clause-initial, medial and final positions.
6. The teachers themselves should keep up with the changing knowledge especially on language in real use or corpus linguistics. As such, they will not be strictly attached to the traditional language patterns some of which might be changed, giving way to a wider range of usage.
7. Moreover, not only to use discourse connectors correctly, the teachers should also encourage their learners to use a greater variety of discourse connectors available in each semantic function to foster cohesion and coherence of formal texts.
8. Without conscious awareness of the grammatical restrictions involved in DCs with variants, the students will probably continue to use the DCs

interchangeably and produce similar errors. The teachers, therefore, must play a role in raising their awareness of the grammatical restrictions involved in DCs with variants.

5.2.2 Implications for Learners

1. Learners should pay much attention to creating and consistently improving coherence in academic writing which requires more than an ability to grammatically put sentences together but also an ability to produce coherently-united texts fostering succinct interpretation for readers.

2. Learners should engage themselves in studying English academic texts possibly produced by English-native speakers or advanced learners and noticing how they appropriately and variously use discourse connectors to construct their texts.

3. Learners should be made aware of different norms of using discourse connectors or writing in the second language so as to avoid L1 interference in second language writing.

5.3 Recommendations for Further Research

5.3.1 Since this study was limited to small corpora, similar research should be conducted with larger corpora, probably contributing different and broadened findings in aspects of functions, syntactic distribution or even problems discovered.

5.3.2 The future study can also investigate the EFL student writers' DC usage in other genres of writing. As this study aimed to investigate the DCs used in argumentative writing, the preliminary finding revealed that DCs of concession and contrast saliently occurred in the Thai learners' writing. The future study may target at other writing modes which may characterize most frequent DCs from different

semantic categories; for instance, via a narrative, DCs of addition or enumeration and ordering categories may appear more frequently than others.

5.3.3 To obtain in-depth data and a clearer picture of using discourse connectors by the learners and the native speakers, in further research it is essential to conduct an interview with some of the participants whose compositions contain inappropriate use of DCs. As such, the assumption on L1 interference affecting different writing styles and resulting in erroneous DC use will, for instance, be more evidently addressed.

5.3.4 It is also interesting to conduct similar qualitative research to investigate the use of discourse connectors in oral communication. Doing so, possible negative transfer of DC use in spoken to written language can be revealed.

REFERENCES

- Anderson, J. (1993). Is a communicative approach practical for teaching English in China? Pros and Cons. *System*, 21, 471-480.
- Apipongsathorn, R. (2002). *The study of the relationship between a knowledge of English grammar and the ability to apply grammar to business writing with regard to the telephone organization of Thailand's personnel*. M.A. Thesis. Ramkhamhaeng University.
- Beach, R. (1985). The use of rhetorical strategies in narrative and expository modes. *Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, III.*
- Bell, D. (2007). Sentence-initial *and* and *but* in academic writing. *Pragmatics*, 17(2), 183-201.
- Bennui, P. (2008). A study of L1 interference in the writing of Thai EFL students. *Malaysian Journal of ELT Research*, 4, 72-102.
- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). *Longman grammar of spoken and written English*. Essex: Pearson Education, Limited.
- Bikelienė, L. (2008). Resultive connectors in advanced Lithuanian learners' English writing. *KALBOTYRA*, 59(3), 30-37.
- Blakemore, D. (1987). *Semantic constraints on relevance*. Oxford: Blackwell.
- Blakemore, D., & Carston, R. (2005). The pragmatics of sentential coordination with *and*. *Lingua*, 115, 569-589.

- Braine, G., & Liu, M. (2005). Cohesive features in argumentative writing produced by Chinese undergraduates. *System*, 33, 623–636.
- Carter, R., & McCarthy, M. (2006). *Cambridge Grammar of English: A Comprehensive Guide Spoken and Written English Grammar and Usage*. Cambridge: Cambridge University Press.
- Celce-Murcia, M., & Larsen-Freeman, D. (1999). *The grammar book: An ESL/ EFL teacher's course*, 2nd ed. Boston: Heinle & Heinle.
- Chakorn, O-O. (2004). A synthesis of “Discourse Analysis” and “Contrastive Rhetoric” and their applications to research on business discourse. *NIDA Language and Communication Journal*, 19-46.
- Chang, M.H. (2008). Discourse and grammaticalization of contrastive markers in Taiwanese Southern Min: A corpus-based study. *Journal of Pragmatics*, 40, 2114-2149.
- Chieu, Y.H. (2004). The L2 acquisition of the coordinating conjunction “and” in Taiwanese learners’ interlanguage at college level. *Asian EFL Journal*.
- Connor, U. (1994). Review of text analysis. *Tesol Quarterly*, 28(4), 682-684.
- Cook, G. (1989). *Discourse*. Oxford: Oxford University Press.
- Cowan, R. (2008). *The teacher's grammar of English*. Cambridge: Cambridge University Press.
- Crystal, D. (1992). *Introducing Linguistics*. London: Penguin.
- Feng, L. (2010). Discourse markers in English writing. *The Journal of International Social Research*, 3(11), 299-305.

- Field, Y., & Yip, L. (1992). A comparison of internal conjunctive cohesion in the English essay writing of Cantonese speakers and native speakers of English. *RELC Journal*, 23(1), 15-28.
- Fortuno, B. (2006). *Discourse markers within the university lecture genre: A comparative study between Spanish and North-American lectures*. Ph.D. Thesis. Universitat Jaume I.
- Fraser, B. (1993). Discourse markers across language. *Pragmatic Language Learning, Monograph Series 4*.
- Fraser, B. (1999). What are Discourse Markers? *Journal of Pragmatics*, 31, 931-952.
- Granger, S., & Tyson, S. (1996). Connector usage in the English essay writing of native and non-native EFL speakers of English. *World Englishes*, 15(1), 17-21.
- Haberlandt, K. (1982). Reader expectations in text comprehension. *Language and Comprehension*, 239-249.
- Halliday, M.A.K., & Hasan, R. (1976). *Cohesion in English*. London: Longman.
- Hoey, M. (1983). *On the Surface of Discourse*. London: Allen & Unwin.
- Huddleston, R., & Pullum, G.K. (2002). *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press.
- Jafarpur, A., (1991). Cohesiveness as a basis for evaluating compositions. *System*, 19, 459-465.
- Jalilifar, A. (2008). Discourse markers in composition writings: The case of Iranian learners of English as a Foreign Language. *English Language Teaching*, 1(2), 114-122.

- Johns, A.M. (1984). Textual cohesion and the Chinese speakers of English. *Language Learning and Communication*, 3(1), 69-73.
- Johnson, P. (1992). Cohesion and coherence in compositions in Malay and English language. *RELC Journal*, 23(2), 1-17.
- Kaplan, R.B. (1966). Cultural thoughts patterns in international education. *Language Learning*, 16(1), 1-20.
- Kaplan, R.B. (1988). Contrastive rhetoric and second language learning: Notes toward a theory of contrastive rhetoric. In Purves, A.C. (ed.) *Writing across Languages and Cultures: Issues in Contrastive Rhetoric*. Newbury Park, CA: Sage.
- Lai, Y.Y. (2008). *A corpus-based investigation of conjunctive use in the Taiwanese students' writing*. M.A. Thesis. Ming Chuan University.
- Leech, G., & Svartvik, J. (1994). *A communicative grammar of English*, 2nd ed. London: Longman.
- Mann, W.C., & Thompson, S.A. (1988). Rhetorical structure theory: Toward a functional theory of text organization. *Text*, 8(3), 243-281.
- Mann, W.C., Matthiessen M.I.M., & Thompson, S.A. (1992). Rhetorical structure theory and text analysis. In W.C. Mann and S.A. Thompson (eds.), *Discourse Description: Diverse Linguistics Analyses of a Fund-Raising Text*. Amsterdam and Philadelphia: John Benjamins.
- Martin, J.R. (1985). *Process and text: two aspects of human semiosis*. In Benson and Greaves (eds.).
- Martínez, A.C.L. (2004). Discourse markers in the expository writing of Spanish university students. *IBERICA*, 8, 63-80.

- McCarthy, M. (1991). *Discourse Analysis for Language Teachers*. Cambridge: Cambridge University Press.
- Na-ngam, S. (2005). *Common grammatical errors in foundation English I written assignments of Prince of Songkla University students with high and low English entrance examination scores*. M.A. Thesis. Prince of Songkla University.
- Narita, M., Sato, C., & Sugiura, M. (2004). Connector usage in the English essay writing of Japanese EFL learners. *The Proceedings of the Fourth International Conference on Language Resources and Evaluation*, 1171-1174.
- Norment, N. (1994). Contrastive analyses of cohesive devices in Chinese and Chinese ESL in narrative and expository written texts. *Chinese Language Teaching Association Journal*, 29(1), 49-81.
- Norrish, J. (1983). *Language learners and their errors*. London: The Macmillan Press Ltd.
- Ong, W. J. (1988). *Orality and Literacy: The Technologizing of the Word*. New York: Methuen.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. London: Longman.
- Ramasawmy, N. (2004). *Conjunctive cohesion and relational coherence in students' compositions*. M.A. Thesis. University of South Africa.
- Redeker, G. (1991). Review article: Linguistic markers of discourse structure. *Linguistics*, 29(6), 1139-1172.
- Rutherford, W.E. (1997). *Second language grammar: Learning and teaching*, 7th ed. New York: Longman.

- Schiffrin, D. (1987). *Discourse Markers*. New York: Cambridge University Press.
- Sindhubordee, N. (2002). *The effects of the grammar self-studying in KMUTT SALC on self-correction of writing and on students' written production*. M.A. Thesis. King Mongkut's University of Technology Thonburi.
- Sted, M., & Schmitz, B. (2000). Discourse particles and discourse functions. *Machine Translation*, 15, 125–147.
- Stubbs, M. (1983). *Discourse analysis*. Chicago: University of Chicago Press.
- Swales, J.M. (1990). *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.
- Sweetser, E. (1990). *From Etymologies to Pragmatics: Metaphorical and Cultural Aspects of Semantic Structure*. Cambridge: Cambridge University Press.
- Ubol, C. (1993). Some error correction techniques for EFL written work. *Thai TESOL BULLETIN*, 5(4), 34-36.
- Umbach, C. (2001). Contrast and contrastive topic. *Paper presented at ESSLLI 2001 Workshop on Information Structure, Discourse Structure and Discourse Semantics*.
- Warsi, J. (2000). *The acquisition of English contrastive discourse markers by advanced Russian ESL students*. Ph.D. Thesis. Boston University.
- Woods, E. (1995). *Introducing Grammar*. London: Penguin.
- Yeung, L. (2009). Use and misuse of 'besides': A corpus study comparing native speakers' and learners' English. *System*, 37, 330-342.

- Ying, S. (2007). *An Analysis of Discourse Markers Used by Non-native English Learners: Its Implications for Teaching English as a Foreign Language*. Kanda University of International Studies.
- Ying, S. (2009). Remarks on contrastive discourse markers (CDMs) in writings by non-native English learners. *US-China Foreign Language*, 7(4), 40-46.
- Yu, W.S. (1995). *Argumentative writing in L1 Chinese and L2 English: A study of secondary six students in Hong Kong*. M.Ed. Thesis. The University of Hong Kong.
- Zhang, M. (2000). Cohesive features in the expository writing of undergraduates in two Chinese universities. *RELC Journal*, 31(1), 61-95.

APPENDICES

APPENDIX B

Participant Profile

Text No. _____

Approximate length of essay: -500 word +500 words

First name:..... **Surname**

Major: **Level**

Gender: Male Female **Age:**

Title of essay:

- Computer games should be forbidden in universities.
 Sex and violence should be banned from the media.
 Love in schools is not suitable.
 Nowadays women and men are treated equal.

Nationality:

First language: Second language:

Language(s) spoken at home:

Years of learning English at school and university:

Stay/ study in an English-speaking country:

Where?

How long?

I hereby give permission for my essay to be used for research purposes.

Signature:

APPENDIX C

Complete List of Frequency of the Individual DCs Identified in NSW Corpus

NSW			
Rank	Individual DCs	Tokens	%
1	because	39	11.96
2	but (as against)	38	11.66
3	and	35	10.74
4	for example	29	8.90
5	although	13	3.99
6	on the other hand	13	3.99
7	so	11	3.37
8	in conclusion	11	3.37
9	also	10	3.07
10	second	10	3.07
11	moreover	9	2.76
12	too	9	2.76
13	still	9	2.76
14	therefore	7	2.15
15	last	7	2.15
16	third	7	2.15
17	then	5	1.53
18	however (as against)	5	1.53
19	for instance	4	1.23
20	as a result	4	1.23
21	additionally	3	0.92
22	furthermore	3	0.92
23	likewise	3	0.92
24	finally	3	0.92
25	thus	3	0.92
26	accordingly	3	0.92
27	consequently	3	0.92
28	next	2	0.61
29	secondly	2	0.61
30	similarly	2	0.61
31	while	2	0.61
32	in fact	2	0.61
33	or (=otherwise)	2	0.61
34	first	1	0.31

NNSW			
Rank	Individual DCs	Tokens	%
35	first of all	1	0.31
36	or	1	0.31
37	at this point	1	0.31
38	then	1	0.31
39	here	1	0.31
40	in other words	1	0.31
41	even though	1	0.31
42	in contrast	1	0.31
43	instead	1	0.31
44	on the contrary	1	0.31
45	though	1	0.31
46	whereas	1	0.31
47	due to	1	0.31
48	all in all	1	0.31
49	anyway	1	0.31
50	in short	1	0.31
51	in reality	1	0.31
Total		326	100.00

APPENDIX D

Complete List of Frequency of the Individual DCs Identified in NSW Corpus

NSW			
Rank	Individual DCs	Tokens	%
1	and	39	17.26
2	also	25	11.06
3	but (as against)	24	10.62
4	because	16	7.08
5	for example	11	4.87
6	however (as against)	9	3.98
7	due to	8	3.54
8	yet	6	2.65
9	therefore	6	2.65
10	so	5	2.21
11	still	5	2.21
12	although	5	2.21
13	though	5	2.21
14	while	4	1.77
15	finally	4	1.77
16	then	3	1.33
17	namely	3	1.33
18	as a result	3	1.33
19	at least	3	1.33
20	in addition	2	0.88
21	too	2	0.88
22	even though	2	0.88
23	on the other hand	2	0.88
24	indeed	2	0.88
25	in fact	2	0.88
26	thus	2	0.88
27	then	2	0.88
28	and also	1	0.44
29	besides	1	0.44
30	furthermore	1	0.44
31	moreover	1	0.44
32	or	1	0.44
33	for instance	1	0.44
34	instead	1	0.44

NSW			
Rank	Individual DCs	Tokens	%
35	on the contrary	1	0.44
36	whereas	1	0.44
37	accordingly	1	0.44
38	aside from this	1	0.44
39	for	1	0.44
40	for this reason	1	0.44
41	hence	1	0.44
42	in conclusion	1	0.44
43	in short	1	0.44
44	in summary	1	0.44
45	overall	1	0.44
46	to conclude with	1	0.44
47	actually	1	0.44
48	in either case	1	0.44
49	first	1	0.44
50	firstly	1	0.44
51	first of all	1	0.44
52	lastly	1	0.44
53	secondly	1	0.44
Total		226	100.00

VITAE

Name Miss Pansa Prommas

Student ID 5211121043

Educational Attainment

Degree	Name of Institution	Year of Graduation
Bachelor of Arts	Thaksin University	2006

(First-class honor in English)

List of Publication and Proceeding

Prommas, P., & Sinwongsuwat, K. (2011). A comparative study of discourse connectors used in argumentative compositions produced by Thai EFL learners and English-native speakers [Abstract]. *Proceedings of the 3rd International Conference on Humanities and Social Sciences*, Thailand: Prince of Songkla University (p.7).