Discourse Connector Usage in Argumentative Essays by American and Thai University Students

Kamolphan Jangarun[*]
Chulalongkorn University

Sudaporn Luksaneeyanawin
Chulalongkorn University

This study investigated the similarities and differences in the use of discourse connectors (DCs) in argumentative essays of American undergraduate students (AMs), Thai with high-English exposure (THHs) and Thai with low-English exposure (THLs). The data of these three groups were collected from 60 essays; 20 essays were from the corpus of University of Michigan with a total of 43 essays, the 40 Thai data were selected from 300 Thai university students based on their English exposure scores. Adopting the theoretical framework of Halliday and Hasan (1976), Biber et al. (1999), and Cowan (2008), there were five categories of DCs in this study: Additive, Adversative, Causal, Temporal, and Continuatives. The data were statistically analyzed in terms of mean, standard deviation, t-test, and One-Way ANOVA. It was found that there was a significant difference in two categories: Causal and Temporal. The t-test for Causal was .007, and the t-test for Temporal was .005 (p< 0.05). The differences in the use of DCs in AMs and THHs and THLs could be the effect of interlanguage processes, i.e., Language Transfer, Transfer of training, and Strategies of second language communication. Additive category was most frequently used by all three groups, especially the use of the DC lexis *and*. It is interesting to discover that pragmatically speaking *and* represents many discourse functions beside Addition. It is used in all main categories, i.e., Adversative, Causal, Temporal and Continuatives.
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Keywords: discourse connectors **(DCs)**, argumentative essays, second language writing, lexical semantics, English language exposure

[*] First author: Kamolphan Jangarun; corresponding author: Sudaporn Luksaneeyanawin.

1 Introduction

It has been proven that writing is the most difficult language skill for learners of English as a second language, English as a foreign language, and even for native speakers of English (Jun, 2008; Norrish, 1983; Nunan, 1999). According to Hyland (2003), one of the most challenging aspects of second language learning is to learn how to write in a second language since writing effectively requires extensive and specialized instruction. For academic writing, it requires the ability to construct not only grammatical sentences, but a text with good cohesion and coherence (Hamed, 2014; Prommas & Sinwongsuwat, 2013).

Halliday and Hasan (1976) and Sinicrope (2007) suggested that cohesion is a means for combining sequences of sentences together in order to form a unified whole. Previous studies (Alarcon & Morales, 2011; Liu & Braine, 2005; Witte & Faigley, 1981) found that cohesion is an important feature which can lead to coherence of the text. Cohesion and coherence are two significant elements for the quality of writing. Also, Dik (1989) proposed that discourse connectors (DCs) are one of the main factors which show the degree of coherence of a discourse. This observation was supported by Liu and Braine (2005) as they have found a correlation between cohesive devices and successful writings. Granger and Tyson (1996) stated clearly that "connectors are difficult to master". In this study, DCs in argumentative essays were investigated. DCs have been the interest of language researchers especially those who focus on language in use (Camiciottoli, 2010). DCs in this study refer to textual links carrying a core meaning of a general nature specified by context, and they guide readers through the information and help them interpret coherent of the texts (Pichastor, 2006). For argumentative essays, this writing genre has been approved by researchers (Ferretti et al., 2007; Gleason, 1999; Purdue Online Writing Lab (POWL), 2013; Richards & Schmidt, 1992; Yang & Sun, 2012) to be the hardest writing type comparing with expository, persuasive, and analytical both in L1 and L2 writing, and it was found that DCs were used in argumentative writing more than others. Also, Yang and Sun (2012) stated that discourse features are salient in argumentative tasks. To summarize, our research focused on the comparison of the DCs usage in argumentative essays by Americans (AMs), Thai with high-English exposure (THHs) and Thai with low-English exposure (THLs) in order to find out the similarities and differences in the lexical semantic aspect among these three sample groups. Our hypothesis was that THHs use DCs in argumentative essays in a more target like manner, whereas THLs use DCs in argumentative essays differently from AMs.

2 Literature Review

2.1 Cohesive device: English discourse connectors

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Cohesion is most commonly understood as a subset of coherence. It is one of the factors that creates coherence in a text (Witte & Faigley, 1981). According to Halliday and Hasan (1976), cohesion is a means for combining sequences of sentences together in order to form a unified whole because it describes the specific surface level ties which can create connections between sentences. In order to be cohesive, different cohesive devices: repetition, substitution, ellipsis, conjunction, and lexical cohesion are employed. However, this study focused on only cohesive device, i.e., conjunctions.

Conjunctions were studied and referred to by many different terms, for example, conjunctions (Halliday & Hasan, 1976; LaPalombara, 1976), conjuncts (Quirk et al., 1985; Zamel, 1983), connectives (Huddleston & Pullum, 2002), connectors (Granger & Tyson, 1996), discourse markers (Fraser, 1999), discourse connectors (Cowan, 2008; Kalajahi et al., 2012), logical connectors (Celce-Murcia & Larsen-Freeman, 1999; Milton & Tsang, 1993; Pichastor, 2006), logical connectives (Crewe, 1990), linking adverbials (Biber et al., 1999). The differences are only in the referent terms; their functional categories are similar. For example, in Halliday and Hasan (1976), conjunctions are grouped by their semantic functions and divided into five main types: (1) Additive, (2) Adversative, (3) Causal, (4) Temporal, and (5) Continuatives, whereas Biber et al. (1999) categorized linking adverbials into nine categories by their discourse functions, and Cowan (2008) coined the new term, discourse connectors (DCs). Cowan divided DCs into eight types using their semantics functions. From a reanalysis of these three frameworks, DCs could be divided into five main categories (Halliday and Hasan, 1976) (1) Additive, (2) Adversative, (3) Causal, (4) Temporal, and (5) Continuatives. Each main category could be divided into sub-categories using Biber et al. (1999) and Cowan (2008). Additive can be separated into three sub-categories: (1) addition, (2) example or exemplification, and (3) restatement. For Adversative, there are two sub-categories: contrast and concession. Causal refers to result or inference. There are two sub-categories in Temporal which are enumeration or ordering, and summation or summary. Continuative refers to transition. The sub category that is under Continuatives is not found in Cowan (2008). Details of the three main theoretical framework of DCs are shown below in Table 1.

Table 1. The Framework of Analysis

Biber et al. (1999)	Halliday & Hasan (1976)	Cowan (2008)
Addition		Addition
Example	Additive	Exemplification
Restatement		Restatement
Contrast		Contrast
Concession	Adversative	Concession

Result/Inference	Causal	Result
Enumeration	Temporal	Ordering
Summation		Summary
Transition	Continuatives	-

2.2 Argumentative essays

The argumentative essay is a genre of writing which writers have to prove that their opinion, theory or hypothesis about an issue is correct or more truthful than those of others. The objective of this kind of writing is to convince the readers of the acceptability of the standpoint taken (Oostdam, 2005). In argumentative writing, the writers state their position, give supporting reasons for the position, introduce a counter-argument and oppose it with further reasons, and restate the position (Chin et al., 2012; Hirose, 2003).

A degree of argumentative essays is also one aspect to take into account in this study. As we claim that DCs are used in argumentative essays more than others, and to prove our hypothesis all essays are identified and selected based on the elements of the structure of the argumentative essay proposed by Purdue Online Writing Lab (POWL). According to POWL (2013), the argumentative writing requires writers to investigate the topic, collect and generate information, evaluate evidence, and establish a position on the topic in a concise manner.

2.3 Related research studies

Bolton, Nelson and Hung (2003) conducted a corpus-based study of the use of connectors in Hong Kong learners' academic writing and compared it with two native corpora: the International Corpus of English in Britain (i.e., native students corpus), and the International Corpus of English (i.e., published academic corpus). They found that both native speakers, and foreign language learners overused many connector types (e.g., *so, also* and *thus*) but the occurrence of underuse was not found. Sitthirak (2013) investigated the use of contrastive discourse markers between 79 Thai university students and 28 English speakers using a set of questionnaires. The result showed that Thai students could differentiate the use of contrast and non-contrast relation between two utterances at a more considerable rate than English speakers for the given contexts because of the differences in pragmatic use. In our research, we focused on comparing DCs usage in argumentative essays among three sample groups in order to find out the similarities and differences in the use of five semantics categories. The framework was adopted from Halliday and Hasan (1976), Biber et al. (1999) and Cowan (2008).

3 Research Design

3.1 Participants

The participants of this study were composed of three groups: the American undergraduate students, and the two groups of Thai undergraduate students. The data of the Americans were selected from the Louvain Corpus of Native English Essays (LOCNESS) which was compiled by the Centre for English Corpus Linguistics of the Université Catholique de Louvain, Belgium.

In this study, only the corpus from the University of Michigan was used. There were 43 essays in this corpus, but only 20 argumentative essays which wrote about computers were selected for this study. For the Thai groups, 300 Thai students from different universities in and around Bangkok were asked to fill the English Language Exposure Questionnaires(Center for Research in Speech and Language Processing (CRSLP), 2002, 2011), and to write an argumentative essay on the topic "Computer and its Impact on People's Lives". They were asked to write both advantages and disadvantages of computers. The 20 students who got the highest score were the sample of Thai with high-English exposure (THHs) and the 20 students who got the lowest score represented the sample of Thai with low-English exposure (THLs).

3.2 Research instruments

The research instruments for this study were the English Language Exposure Questionnaire, Argumentative essays, AntConc Concordance program, and ANOVA for statistical analysis

3.3 Framework of analysis

The first task was to choose the DCs for study. The selection of DCs for this study was based on the list of DCs in Halliday and Hasan (1976), Quirk et al. (1985), Biber et al. (1999), and Cowan (2008). The final list contained 103 DCs. The next task was to identify DCs in the essay using AntConc Concordance program as the program provides word frequency lists, key words, cluster or N-grams, and collocation. Then the use of DCs among the three groups was analyzed manually in terms of lexical semantics types because many DCs have two or more different functions. For example, *too* can function both as an adverb and as a DC. The next step was to compare and contrast the types of DCs in the three sample groups quantitatively. Description and discussion of the results are elaborated.

4 Results

4.1 Degree of argumentative essays in three groups

Each essay is marked based on the POWL's framework. There are five main elements used in the marking as follows:

1. It must have a clear, concise and defined thesis statement in the first paragraph.
2. It must have clear and logical transitions between the introduction, body and conclusion.
3. It should be limited to discuss of one general idea in each body paragraph.
4. It must have evidential support, i.e., factual, logical, statistical or anecdotal.
5. It should not introduce any new information into the conclusion.

The total score was 10 points. The highest score we got from the three sample groups was 7, and the lowest score was 3. The degree of argumentative essays in all three groups was shown in Table 2.

Table 2. The Degree of Argumentative Essays in 3 Groups (N=20)

Samples	ToDl score	Range	Max	Min	Mean	S.D.
AMs	10	5-7	7	5	5.85	0.87
THHs	10	4-7	7	4	5.9	0.96
THLs	10	3-7	7	3	6	1.33

From the score, we can say that THLs had a higher standard deviation showing the wider range within the group, whereas AMs and THHs had a lower SD showing the narrower range within the two groups.

4.2 The English language exposure questionnaire

The questionnaires were distributed to 300 Thai EFL students from different universities in and around Bangkok. The sample groups were selected according to the English Language Exposure scores. The top 20 students with highest scores were selected as the THHs and the bottom 20 students with lowest scores were selected on THLs. The English language exposure scores between the two groups of Thai learners were shown in Table 3. We can say that THLs had a higher standard deviation which showed a wider range of English language exposure. The percentage of the English exposure scores of the THHs was nearly one time higher than THLs.

Table 3. The THHs and THLs English Exposure Scores (N=20)

Samples	Total score	Max	Min	Mean	%	S.D.
THHs	333	182	156	166	49.85	7.71
THLs	333	99	64	88.7	26.64	10.79

4.3 The length of the essay

The length of the essays was also one of many factors to be mentioned because it could lead to the different results in the DCs usage among the three sample groups. Table 4 showed that AMs produced the longest essays which an average number of 381.1 words, whereas the average number of words in THHs and THLs were 319.7 and 308.6, respectively. Although AMs had the longest essays, the number of DCs usage in this group was the least comparing to both TH groups.

Table 4. Number of DCs and the Word Length in Each Group (N=20)

Samples	No. of Words in the Essays					No. of DCs	Percentage of DCs used	S.D.
	Total	Max	Min	Avg	Range			
AMs	7622	567	210	381.1	357	260	3.41	98.18
THHs	6394	425	232	319.7	193	302	4.72	55.09
THLs	6172	403	253	308.6	150	319	5.16	50.9

4.4 DCs usage in the 3 sample groups

As shown in Table 5, there were two main differences of the percentages of the use of DCs in three sample groups. Firstly, the percentage of DC usage between AMs and both groups of THs, clearly showed the differences in the use of Causal and Temporal. It was found that within the five main categories, AMs used Causal only 10.38%. When we compared to the THs, AMs used Causal the least whereas the percentage of THHs was 18.87%, and 17.87% in the THLs. This observation can be explained in the case of Temporal as well. In Temporal category, AMs used it the least, when comparing to the THHs, and THLs, the ratio was 2.69%, 10.60% and 10.97%, respectively.

From Table 5, we did a statistical analysis to see the significant difference among the use of DCs in the three groups in each main category. ONE WAY ANOVA resulted in Table 6 supported that the differences in the use of Causal and Temporal DCs were significant.

To see the multiple comparisons among the three sample groups, the Scheffé method was employed.

Table 5. DCs Usage in 3 Sample Groups

Main	AMs		THHs		THLs	
Category	Token	%	Token	%	Token	%
Additive	154	59.23	151	50.00	156	48.90
Adversative	50	19.23	51	16.89	61	19.12
Causal	27	**10.38**	57	**18.87**	57	**17.87**
Temporal	7	**2.69**	32	**10.60**	35	**10.97**
Continuatives	22	8.46	11	3.64	10	3.13
TOTAL	260	100.00	302	100.00	319	100.00

Table 6. The ONE WAY ANOVA Result (* p< 0.05)

		df	MS	F	p
Additive	Between groups	2	.317	.029	.972
	Within groups	57	11.094		
	Total	59			
Adversative	Between groups	2	1.517	.584	.561
	Within groups	57	2.596		
	Total	59			
Causal	Between groups	2	15.000	5.423	*.007
	Within groups	57	2.766		
	Total	59			
Temporal	Between groups	2	11.317	5.783	*.005
	Within groups	57	1.957		
	Total	59			
Continuatives	Between groups	2	2.217	2.351	.104
	Within groups	57	.943		
	Total	59			

Table 7. The Result from the Scheffé Method

Dependent variable	(I) G	(J) G	Mean difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Causal	1	2	-1.500*	.526	*.022	-2.82	-.18
		3	-1.500*	.526	*.022	-2.82	-.18
	2	1	1.500*	.526	*.022	.18	2.82
		3	.000	.526	1.000	-1.32	1.32
	3	1	1.500*	.526	*.022	.18	2.82
		2	.000	.526	1.000	-1.32	1.32
Temporal	1	2	-1.250*	.442	*.024	-2.36	-.14
		3	-1.350*	.442	*.013	-2.46	-.24
	2	1	1.250*	.442	*.024	.14	2.36
		3	-.100	.442	.975	-1.21	1.01
	3	1	1.350*	.442	*.013	.24	2.46
		2	.100	.442	.975	-1.01	1.21

Note: 1 = AMs, 2 = THHs, 3 = THLs
 *. The mean difference is significant at the 0.05 level.

The Scheffé result (Table 7) showed that in Causal category there was a significant difference between AMs and both the high and the low THs. On the other hand, there were no significant differences between THHs, and THLs. The t-test was 1.0 (p< 0.05). For Temporal category, there was a significant difference between AMs and THs. The t-test was .024 (p< 0.05) in comparison between AMs and THHs, and the t-test was .013 (p< 0.05) when comparing between AMs and THLs.

4.5 Types of DCs usage among the three sample groups

4.5.1 Additive DCs usage
Table 8 revealed the use of all the three sub-categories of Additive: addition, exemplification, and restatement.

Table 8. The Frequency of DCs Usage in Additive Category

Main cate-gory	Sub cate-gory	DC Lexis		AMs		THHs		THLs	
				Token	%	Token	%	Token	%
Addi-tive	Addi-tion	1	also	24	15.58	19	13.19	14	9.52
		2	and	94	61.04	66	45.83	62	42.18
		3	as well	4	2.60	5	3.47	3	2.04
		4	besides	2	1.30	1	0.69	2	1.36
		5	further-more	1	0.65	1	0.69	2	1.36
		6	in addition	1	0.65	2	1.39	4	2.72
		7	moreover	1	0.65	7	4.86	11	7.48
		8	or	8	5.19	13	9.03	8	5.44
		9	meanwhile	0	0.00	1	0.69	0	0.00
	Sub total			135	87.66	115	79.86	106	72.11
	Exem-plifica-tion	1	for example	6	3.90	6	4.17	18	12.24
		2	such as	7	4.55	20	13.89	20	13.61
		3	e.g.	1	0.65	0	0.00	0	0.00
		4	for instance	3	1.95	0	0.00	0	0.00
		5	to illustrate	0	0.00	1	0.69	0	0.00
	Sub total			17	11.04	27	18.75	38	25.85
	Restate-ment	1	that is	2	1.30	0	0.00	2	1.36
		2	specifi-cally	0	0.00	2	1.39	0	0.00
		3	that is to say	0	0.00	0	0.00	1	0.68
	Sub total			2	1.30	2	1.39	3	2.04
	TOTAL			154	100.00	144	100.00	147	100.00

There were 29 DC lexis in this category, and 18 DC lexis were found. Only 10 DC lexis were used among the three groups. *And* was highly used by all three groups: AMs, THHs, and THLs with 61.04%, 43.71%, and 39.74%, respectively. The two lexis: *e.g.* and *for instance* were used only by AMs. For example:

AMs: Almost everyone has at least one simple computer, *e.g.* a calculator.
THHs: *For example*, if you want to promote your novel, you can write your story on the website or blog.
THLs: *For example*, if you want to search something, you can find it on your computer by using the internet.

4.5.2 Adversative DCs usage

Table 9 demonstrated the use of all the two sub-categories of Adversative: contrast and concession.

Table 9. The Frequency of DCs Usage in Adversative Category

Main category	Sub category		DC Lexis	AMs		THHs		THLs	
				Token	%	Token	%	Token	%
Adver-sative	Contrast	1	but	20	40.00	25	49.02	22	36.07
		2	instead	2	4.00	2	3.92	1	1.64
		3	on the contrary	1	2.00	2	3.92	1	1.64
		4	on the other hand	1	2.00	3	5.88	5	8.20
		5	conversely	0	0.00	1	1.96	0	0.00
		6	in contrast	0	0.00	0	0.00	3	4.92
		7	nor	0	0.00	0	0.00	1	1.64
	Sub total			24	48.00	33	64.71	33	54.10
	Conce-ssion	1	although	1	2.00	4	7.84	8	13.11
		2	even though	1	2.00	2	3.92	2	3.28
		3	however	18	36.00	11	21.57	16	26.23
		4	yet	1	2.00	0	0.00	0	0.00
		5	nonetheless	0	0.00	1	1.96	0	0.00
		6	nevertheless	0	0.00	0	0.00	1	1.64
		7	though	5	10.00	0	0.00	1	1.64
	Sub total			26	52.00	18	35.29	28	45.90
	TOTAL			50	100	51	100	61	100

There were 24 DC lexis in this category, and 14 DC lexis were found used among the three groups. 9 DC lexis were used by AMs, and THHs, whereas THLs used 11 DC lexis. *But* was used the most by all three groups: AMs (40.00%), THHs (49.02%), and THLs (36.07%). *However* was the second most DC lexis used by AMs with 36.00%, THLs with 26.23%, and THHs with 21.57%. THHs and THLs used a wide variety of Adversative DC lexis, i.e., *on the other hand, although, in contrast, * in the other hand, though, even though, nonetheless* and *nevertheless.* For example:

AMs: Computers do many useful and wonderful things, <u>*but*</u> people have often experienced the drawbacks of such a wonderful invention.

THHs: Computers has important role with our life. <u>*But*</u> computer has both advantages and disadvantages.

THLs: <u>*But,*</u> if they use them in the correct way, they will be more benefit to the people.

4.5.3 Causal DCs usage

Table 10 showed the finding of all three sample groups in the use of Causal category.

Table 10. The Frequency of DCs Usage in Causal Category

Main category	Sub category		DC Lexis	AMs		THHs		THLs	
				Token	%	Token	%	Token	%
Causal	Result/ inference	1	because	11	40.74	20	35.09	33	57.89
		2	due to	1	3.70	1	1.75	1	1.75
		3	so	4	14.81	27	47.37	16	28.07
		4	then	1	3.70	1	1.75	4	7.02
		5	Therefore	7	25.93	6	10.53	3	5.26
		6	thus	2	7.41	2	3.51	0	0.00
		7	hence	1	3.70	0	0.00	0	0.00
	Sub total			27	100	57	100	57	100
	TOTAL			27	100	57	100	57	100

It showed that 7 Causal DC lexis from 13 DC lexis were found in this study, but only AMs used all the 7 lexis, whereas THHs used 6 lexis and THLs used 5 lexis. AMs and THLs used *because* the most with 40.74%, and 57.89%, respectively, whereas THHs used *so* the most with 47.37%. *Hence*

was the only DC lexis which was used by AMs. That is, we didn't see the use of "hence" in both THHs, and THLs. For example:

> **AMs:** Schools use computers to teach children *because* it is fun and exciting.
> **THHs:** It is not useful *because* you waste your time a lot on it.
> **THLs:** I have this problem *because* I spend much time in front of my computer for many years.

4.5.4 Temporal DCs usage

Table 11 revealed the finding of all the two sub-categories of Temporal: ordering, and summation.

Table 11. The Frequency of DCs Usage in Temporal Category

Main category	Sub category		DC Lexis	AMs		THHs		THLs	
				Token	%	Token	%	Token	%
Temporal	Ordering	1	finally	1	14.29	2	6.25	4	11.43
		2	lastly	1	14.29	1	3.13	1	2.86
		3	firstly	1	14.29	5	15.63	0	0.00
		4	secondly	1	14.29	5	15.63	0	0.00
		5	first	0	0.00	1	3.13	9	25.71
		6	first of all	0	0.00	3	9.38	1	2.86
		7	second	0	0.00	2	6.25	3	8.57
		8	at last	0	0.00	1	3.13	0	0.00
		9	last but not least	0	0.00	2	6.25	0	0.00
		10	to begin with	0	0.00	1	3.13	0	0.00
		11	next	0	0.00	0	0.00	1	2.86
		12	third	0	0.00	0	0.00	2	5.71
	Sub total			4	57.14	23	71.88	21	60.00
	Summation	1	in conclusion	0	0.00	4	12.50	7	20.00
		2	to sum up	0	0.00	2	6.25	6	17.14
		3	all in all	1	14.29	0	0.00	0	0.00
		4	in short	2	28.57	0	0.00	0	0.00
		5	in summary	0	0.00	1	3.13	0	0.00

6	to conclude	0	0.00	2	6.25	0	0.00
7	in sum	0	0.00	0	0.00	1	2.86
Sub total			3	42.86	9	28.13	14	40.00
TOTAL			7	100.00	32	100.00	35	100.00

There were 34 DC lexis in this category, and 19 DC lexis were found. Only two DC lexis: "finally" and "lastly" were used by all groups. Interestingly, AMs rarely used Temporal DCs (2.69%), whereas THHs and THLs used Temporal five times more than AMs (10.60%), and (10.97%), respectively. *all in all* and *in short* were used only by AMs to show summation, whereas both THHs, and THLs used varieties of DC lexis, for example, *in conclusion, to sum up, in summary, to conclude, in sum*. For example:

> **AMs:** *In short,* the productivity of people has increased ten-fold.
> **THHs:** *To conclude,* computers can give us both advantages and disadvantages.
> **THLs:** *In conclusion,* computers have both advantages and disadvantages.

4.5.5 Continuatives DCs usage

Table 12 showed the finding of all three sample groups in the use of Continuatives category.

Table 12. The Frequency of DCs Usage in Continuatives Category

Main category	Sub category	DC Lexis		AMs		THHs		THLs	
				Token	%	Token	%	Token	%
Continuatives	Transitions	1	now	17	77.27	7	63.64	8	80.00
		2	of course	4	18.18	1	9.09	1	10.00
		3	surely	0	0.00	1	9.09	1	10.00
		4	well	1	4.55	0	0.00	0	0.00
		5	anyway	0	0.00	2	18.18	0	0.00
	Sub total			22	100.00	11	100.00	10	100.00
	TOTAL			22	100.00	11	100.00	10	100.00

It showed that 5 Continuatives DC lexis from 7 DC lexis were found in this study. Only 2 DC lexis: *now* and *of course* were used by all groups.

AMs used this category with 8.46% which was almost three times more than both THs groups (H:3.64%, L:3.13%). For example:

> **AMs:** There are *of course* many other things computers are used for.
> **THHs:** *Of course*, we can't refuse that computer is very convenient.
> **THLs:** *Of course,* our live will be hard.

5 Discussion

It can be concluded that both the THH and the THL groups used a wide variety of DC lexis (see Table 13), and many of these lexis were not used by AMs in the study, for example, in Adversative, THs used the low frequency lexis like *nevertheless,* and *nonetheless.*

Table 13. The Total Numbers of DCs Lexis Used in All the 3 Sample Groups

Categories	Total No. of DCs Lexis	AMs	THHs	THLs
Additive				
Addition	16	8	10	9
Exemplification	5	4	3	2
Restatement	8	1	1	2
Adversative				
Contrast	11	4	6	6
Concession	13	5	4	5
Causal				
Result/inference	13	7	6	5
Temporal				
Ordering	23	4	10	7
Summation	11	2	4	3
Continuatives				
Transitions	7	3	4	3
TOTAL	107	38	48	42

These 2 lexis are rarely found in everyday conversation. The varieties of DC lexis in THs were also found in the Temporal category, i.e., *to sum up, to conclude,* and *in summary.* THHs and THLs had a similar pattern in the use of "ordering" in Temporal category. The words *first, firstly, second,* and *secondly* were found widely used in THs. We can imply from what we found that it could be the effect of the Transfer of Training, as THs learn language through explicit teaching of the DCs or conjunctions in the grammar text. Besides, "ordering" is a very good mnemonic device that teachers always used in teaching while AMs learn their native language from communicative context. Teaching materials especially commercial textbooks were also one factor of producing fancy lexis in inappropriate context. The error use of *although* with *but* by THLs can be considered as L1 Transfer from Thai conjunction structure. This negative transfer was found in their developmental Interlanguage stage. For example:

THLs: **Although* computer can be used in inappropriate way and time *but* I think that it's very useful if people can control themselves while using computer.

The error **in the other hand* for *on the other hand* of the THLs was also L1 transfer from the use of *in* in the Thai preposition. We can conclude that both the THH and the THL groups shared the similarity of DC usage, and their DC usage was quite different from the AMs DCs usage, especially in Causal and Temporal category.

6 Pedagogical Implications

As shown by the above findings and conclusions, this study offers some implications for teaching of English writing. First of all, teaching with examples is suggested to employ to the writing class in order to solve problems in using DCs ineffectively in THs. It is suggested that DCs are teachable through authentic texts, so reading should be integrated into the teaching of writing. The use of DCs can be trained through giving instruction, providing examples and practicing from the text. In term of writing argumentative essays, it is beneficial for English teachers to use it as a guideline for developing teaching materials on writing argumentative essays based on the understanding of DC usage. Comparing the use of DCs between AMs and THs is a remarkable and interesting example for teachers to explain how to use DCs because students can obviously see the similarities and differences from the native speakers of English's essay. In conclusion, these implications may also apply to other EFL or ESL contexts.

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Kamolphan Jangarun and Sudaporn Luksaneeyanawin

Kamolphan Jangarun
English as International Language Program, Graduate School
Chulaongkorn University
Bangkok 10330, Thailand
Email: bukhing@gmail.com

Sudaporn Luksaneeyanawin
Faculty of Arts
Chulaongkorn University
Bangkok 10330, Thailand
Email: sudaporn.l@chula.ac.th

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