

## Chapter 4

### Findings of the Study

This chapter presents the results of cohesive devices based on the two research questions posed in chapter one. The research questions are posed as follows :

1. What are the uses of different types of cohesive devices displayed in anesthetic articles ?

2. What are the differences in using cohesive devices found in anesthetic articles ?

The mean and percentage analyses are performed to show and compare the uses of different types of reference, substitution, ellipsis, conjunction and lexical cohesion. The results of analyses answer the two research questions.

#### Findings

Research question I : What are the uses of different types of cohesive devices displayed in anesthetic articles ?

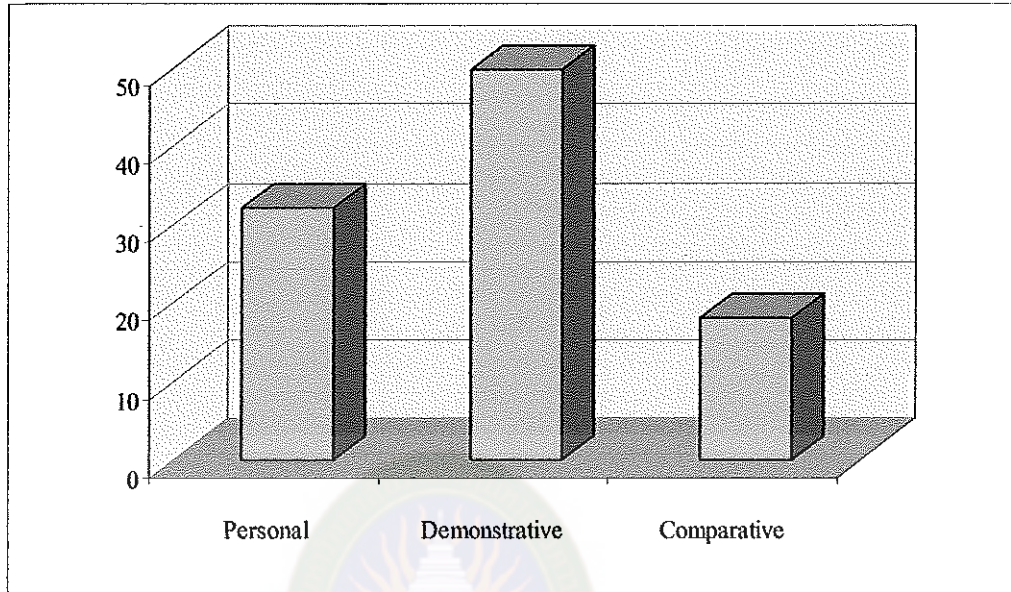
To answer this question, the sentences of each article are separated by punctuation marks and numbered in order. Cohesive ties between sentences or paragraphs of different types of reference, substitution, ellipsis, conjunction, and lexical cohesion are counted twice showing 3 % of the difference in counting between the two times and then calculated for the mean and the percentage of the frequency. The results of these are shown in Table 1 to Table 5. In addition, the findings are analyzed as follows :

**Table 1** Frequency of different types of reference in the five anesthetic articles

Article	Words / Sentences	Type of Reference			Total	Percentage
		Personal	Demonstrative	Comparative		
1	3,199/195	20	14	21	55	13.16
2	3,075/128	8	31	18	57	13.64
3	2,290/119	8	15	10	33	7.89
4	2,480/94	15	23	9	47	11.24
5	2,996/124	83	125	18	226	54.07
Total	14,040/660	134	208	76	418	100
Mean		26.80	41.60	15.20	83.60	
Percentage		32.06	49.76	18.18	100	100

Table 1 summarizes the results of different types of reference in five anesthetic articles. In Article 1, there are 195 sentences containing 3,199 words. The results show that comparative reference has the highest frequency. It makes up 21 out of 55 pairs of ties (13.16%). In Article 2, demonstrative reference is found to be the highest with 31 pairs, having 3,075 words in 128 sentences. Analysis of this article shows the total ties with 57 pairs of ties (13.64%). In addition, in Article 3, 2,290 words in 119 sentences, shows that demonstrative reference is used often more than personal and comparative reference making up 15 pairs out of 33 pairs of ties (7.89%). Likewise, 23 pairs of demonstrative reference in Article 4 are found to be the highest, having 2,480 in 94 sentences. The total ties of this article are 47 (11.24%). Moreover, the last article has 2,996 words in 124 sentences showing 125 pairs of demonstrative reference which is the highest. The total ties are used with 226 pairs (54.07%). It can be summarized that the writers of these articles create the demonstrative reference to be the highest with mean of 41.60 and percentage of 49.76 indicating the referent of location or temporal proximity in the articles. Also, personal reference is found the second with mean of 26.80 and percentage of 32.06 creating the referent of the speaker, the addressee, other person or objects. Moreover, comparative reference is used the third with mean of 15.20 and percentage of 18.18

expressing general similarity, difference and a particular comparison in the five articles. The reference types are shown in the bar graph below.



**Chart 1** The different types of reference used in the five anesthetic articles

**Table 2** Frequency of different types of substitution in the five anesthetic articles

Article	Words / Sentences	Type of Substitution			Total	Percentage
		Nominal	Verbal	Clausal		
1	3,199/195	0	0	0	0	0
2	3,075/128	0	0	0	0	0
3	2,290/119	0	0	0	0	0
4	2,480/94	0	0	0	0	0
5	2,996/124	0	0	0	0	0
Total	14,040/660	0	0	0	0	0
Mean		0	0	0	0	0
Percentage		0	0	0	0	0

Table 2 shows the different types of substitution in the five anesthetic article but substitution is not used in these articles because of the restriction of formal writing.

**Table 3** Frequency of different types of ellipsis in five the anesthetic articles

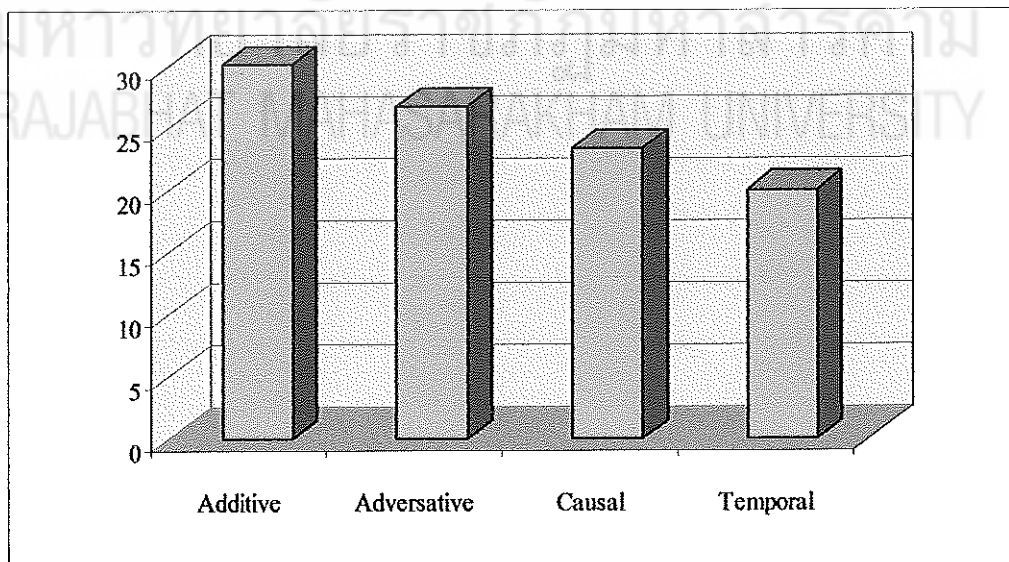
Article	Words / Sentences	Type of Ellipsis			Total	Percentage
		Nominal	Verbal	Clausal		
1	3,199/195	9	0	0	9	15.00
2	3,075/128	10	0	0	10	16.67
3	2,290/119	9	0	0	9	15.00
4	2,480/94	9	0	0	9	15.00
5	2,996/124	23	0	0	23	38.37
Total	14,040/660	60	0	0	60	100
Mean		12	0	0	12	
Percentage		100	0	0		100

Table 3 reveals the different types of ellipsis. The results show that only nominal ellipsis is found in the five articles. There are 9 pairs of ties (15.00%) in Article 1; 10 pairs (16.67%) in Article 2; 9 pairs (15.00%) in Article 3; 9 pairs (15.00%) in Article 4; 23 pairs (38.37%) in Article 5. The mean of nominal ellipsis of the five articles is 12 (100%). From the results, it can be noticed that ellipsis is restricted as well as substitution in formal writing.

**Table 4** Frequency of different types of conjunction in the five anesthetic articles

Article	Words / Sentences	Type of Conjunction				Total	Percentage
		Additive	Adversative	Causal	Temporal		
1	3,199/195	4	2	5	1	12	20.00
2	3,075/128	2	4	2	2	10	16.67
3	2,290/119	2	4	4	0	10	16.67
4	2,480/94	8	4	2	1	15	25.00
5	2,996/124	2	2	1	8	13	21.67
Total	14,040/660	18	16	14	12	60	100
Mean		3.60	3.20	2.80	2.40	12.00	
Parentage		30.00	26.67	23.33	20.00		100

Table 4 summarizes the results of different types of conjunction in the five articles. The results show that causal conjunction is used the most with 5 pairs in Article 1. The total ties also show 12 pairs (20.00%). In Article 2, adversative conjunction is found to have the highest frequency with 4 pairs. The ten ties are the total (16.67%). Furthermore, in Article 3, two types of conjunction, adversative and causal, are used the most, each is found with 4 ties of the total ties of 10 (16.67%). On the other hand, additive conjunction is applied the most with 8 pairs in Article 4. Total ties of this article are 15 pairs (25.00%). In the last one, temporal conjunction displays the highest frequency with 8 out of 13 pairs (21.67%). In addition, the results of the five articles show that there is a little difference between the types of conjunction. The writers use additive conjunction the most to link by adding the previous element with mean of 3.60 (30.00%). Adversative conjunction is used to indicate contrastive relation with the previous sentence with mean of 3.20 (26.67%). Causal conjunction is used to express the cause-effect relationship between two sentences with mean 2.80 (23.33%). Temporal conjunction is used to link signaling sequence or time with mean of 2.40 (20.00%). It can be considered that the different types of conjunction are slightly used in the five articles. The conjunctive types are shown in the bar graph below.



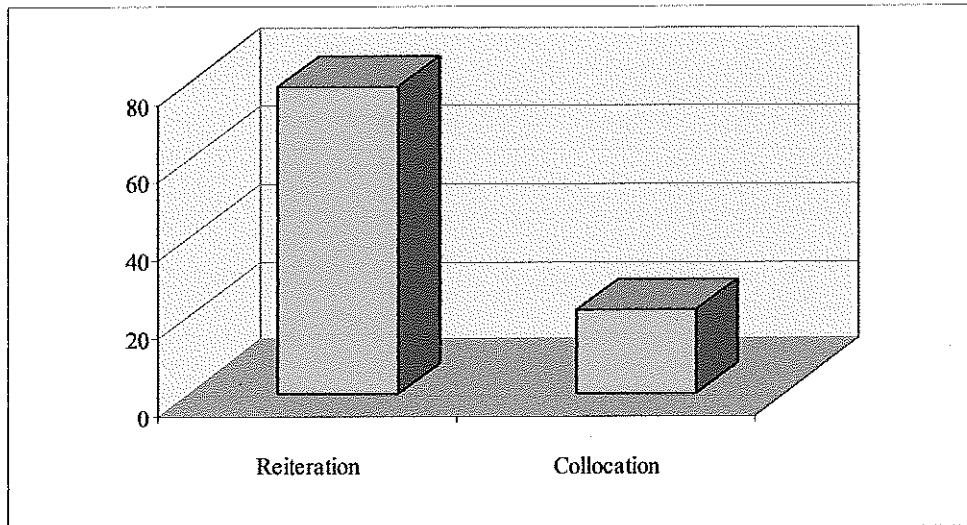
**Chart 2** The different types of conjunction used in the five anesthetic articles

**Table 5** Frequency of different types of lexical cohesion in the five anesthetic articles

Article	Words / Sentences	Type of Lexical cohesion		Total	Percentage
		Reiteration	Collocation		
1	3,199/195	504	203	707	25.62
2	3,075/128	406	51	457	16.56
3	2,290/119	333	103	436	15.80
4	2,480/94	437	171	608	22.02
5	2,996/124	494	58	552	20.00
Total	14,040/660	2,174	586	2,760	100
Mean		434.80	117.20	552.00	
Percentage		78.77	21.23		100

Table 5 reveals the findings of different types of lexical cohesive devices in the five articles. The first one has 3,199 words in 195 sentences finding 504 pairs of reiteration ties and 203 pairs of collocation. The total ties are 707 (25.62%). In the second article, 3,075 words in 128 sentences, shows 406 pairs of reiteration and 51 pairs of collocation, totaling 457 ties (16.56%). In addition, in Article 3, 2,290 words in 119 sentences, finds 333 pairs of reiteration ties and 103 pairs of collocation, totaling 436 ties (15.80%). Furthermore, In Article 4, 2,480 words in 94 sentences, reveals the highest frequency with 437 pairs of reiteration ties, followed by with 171 pairs of collocation ties, totaling 608 ties (22.02%). In the last one has 2,996 words in 124 sentences connected with 494 pairs of reiteration ties and 58 pairs of collocation, totaling 552 ties (20.00%). The mean of reiteration of the five articles is 434.80, showing the highest frequency (78.77%). Regarding collocation, the average is 117.20 (21.23%). Therefore, it can be summarized that the writers use more the repetition of lexical items than collocation through vocabulary connecting parts of text together. The uses of lexical types are shown in the bar graph on the next page.





**Chart 3** The different types of lexical cohesion used in the five anesthetic articles

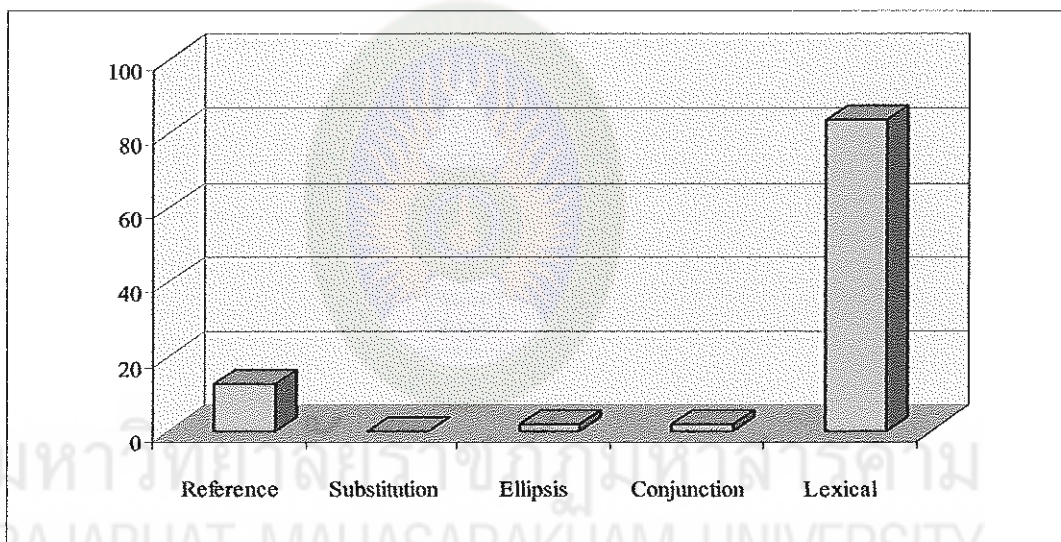
Research question II : What are the differences in using cohesive devices found in anesthetic articles?

To answer this question, each article is analyzed to find the frequency of reference, substitution, ellipsis, conjunction and lexical cohesion. They are then calculated with mean and percentage showing the differences among the main types of cohesive devices in table 6. The findings are also analyzed as follows.

**Table 6** Frequency of main types of cohesive devices in the five anesthetic Articles

Article	Words / Sentences	Reference	Substitution	Ellipsis	Conjunction	Lexical	Total
1	3,199/195	55	0	9	12	707	783
2	3,075/128	57	0	10	10	457	534
3	2,290/119	33	0	9	10	436	488
4	2,480/94	47	0	9	15	608	679
5	2,996/124	226	0	23	13	552	814
Total	14,040/660	418	0	60	60	2,760	3,298
Mean		83.60	0	12.00	12.00	552.00	659.60
Percentage		12.67	0	1.82	1.82	83.69	100

Table 6 summarizes the findings of differences of five main types of cohesive devices : reference, substitution, ellipsis, conjunction and lexical cohesion in the five articles. The five articles show that lexical cohesion displays the highest frequency with mean of 552.00 (83.69%). Also, reference is found the second with mean of 83.60 (12.67%). Furthermore, ellipsis and conjunction are used the third with mean of 12.00 (1.82%). On the other hand, substitution is not seen in the five articles. Therefore, the findings can be summarized that the writers of these articles use lexical cohesive device the most among the types of cohesive devices established the highest bond providing coherence for readers. The differences in using among the five main types of cohesive devices are compared in the bar graph below.



**Chart 4** The main types of cohesive devices used in the five anesthetic articles

## Conclusion

In this chapter, the analytic framework is applied to the sample corpus with respect to the five anesthetic articles using Halliday and Hasan's model of cohesion. The findings of the uses of different types of cohesive devices and the differences in using cohesive devices in the anesthetic articles are the aims of the study that are presented. It is discovered that demonstrative reference, nominal ellipsis, additive conjunction and reiteration are used with the highest frequency among each type of cohesive devices. In addition, lexical cohesion shows the highest frequency among the main types of cohesive devices.