

## Chapter3

### Methodology

This section deals with the methods and procedures of the present study using the quantitative approach.

#### Corpus

The sample corpus in this study comprises five research articles published during February - June 2007 in The American Association of Nursing Anesthetists. These are selected because their contents are useful and related to the work of Nurse Anesthetists of Thailand. The overall corpus of the five articles contains 14,040 words.

#### Method of Analysis

The analysis design for the present study is the frequency distribution of different types of cohesive ties. For this study the cohesive ties were identified on the basis of categorization by Halliday and Hasan (1976) who created two general categories of grammatical cohesion and lexical cohesion. This research focuses on cohesive ties: reference, substitution, ellipsis, conjunction and lexical cohesion. Each article was analyzed in the following steps:

1. First, the sentences of each article were separated by punctuation marks and numbered in order.
2. After each article was divided into individual sentences, the cohesive items was identified and presented in a table. The table included sentence number, number of ties, cohesive item, type of cohesion, and presupposed item. The cohesive items were analyzed and assigned with the following codes.

<b>Cohesive devices</b>	<b>Code</b>
<b>Reference</b>	<b>R</b>
Personal reference	R1
Demonstrative reference	R2

<b>Cohesive device</b>	<b>Code</b>
Comparative reference	R3
<b>Substitution</b>	<b>S</b>
Nominal substitution	S1
Verbal substitution	S2
Clausal substitution	S3
<b>Ellipsis</b>	<b>E</b>
Nominal Ellipsis	E1
Clausal Ellipsis	E2
Verbal Ellipsis	E3
<b>Conjunction</b>	<b>C</b>
Additive conjunction	C1
Adversative conjunction	C2
Causal conjunction	C3
Temporal conjunction	C4
<b>Lexical cohesion</b>	<b>L</b>
Reiteration	L1
Collocation	L2

3. Cohesive items were counted twice to ensure accurate analysis. They were then calculated showing the types used and arranged in a sample table as shown below :

Sentence no.	No. of ties	Cohesive item	Type of cohesion	Presupposed item

### **Data Collection**

The data for the present study was drawn from five anesthetic articles, each of which contained 2,290 to 3,199 words for analysis.

## Data Analysis

1. The first research question: what are the uses of different types of cohesive devices displayed in anesthetic articles?

In order to answer the question, the collected data of each article was analyzed by counting the frequency and formulated by summation. The five articles, then, was summed and calculated for the mean and the percentage of frequency. Analysis of each article indicated the uses of the different types of cohesion: reference, substitution, ellipsis, conjunction, and lexical cohesion; as shown below :

Article	Words / Sentences	Type of Reference			Total	Percentage
		Personal	Demonstrative	Comparative		
1						
2						
3						
4						
5						
Total						
Mean						
Percentage						

2. The data was collected for analysis of the second research question: what are the differences in using cohesive devices found in anesthetic articles?

The analyzed cohesion of the five articles was presented by using table of frequency, mean, and percentage. Each article was analyzed for frequency of reference, substitution, ellipsis, conjunction, and lexical cohesion. These were calculated for the mean and the percentage of frequency. The results were analyzed to find the differences among the main types of cohesive devices. The sample table to be used was shown on the next page.

Article	Words / Sentences	Reference	Substitution	Ellipsis	Conjunction	Lexical	Total
1							
2							
3							
4							
5							
Total							
Mean							
Percentage							

### Statistics

The statistics used for data analysis are frequency, mean, and percentage.

### Conclusion

This chapter is analysis design of five research articles published during February to June 2007 in the American Association of Nursing Anesthetists. The corpus of the five articles contains 14,040 words. The articles are analyzed for the mean, and the percentage of frequency of reference, substitution, ellipsis, conjunction, and lexical cohesion. The results, then, answer the two research questions: What are the uses of the different types of cohesive devices displayed in anesthetic articles? And what are the differences in using cohesive devices found in anesthetic articles?