CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents the methodology used in the study which covers the data sources, the collection of data, and the technique used for analyzing data.

3.1 Nature of the Study

This research applied a qualitative approach because the research emphasized the analysis, particularly examining the classes of conjunctive adverbial as well as their use. Wray and Bloomer (2006) state a qualitative approach involves more description and analysis than computation. In line with their statement, Cassell and Symon (cited in Kohlbacher, 2006) point some characteristics for qualitative research, such as focusing on interpretation, subjectivity, and flexibility in the process of conducting research. Further, qualitative research orients towards the process, context, and recognition of impact of the research on the situation.

Both two definitions discuss the main point in qualitative research properly, and point out the difference between qualitative and quantitative research. However, as both descriptions do not discuss the strength, Mack, Woodsong, Macqueen, Guest, and Namey (2005) explore it and note that this research has the ability to result in deep and detailed descriptions of experience of related issue. Thus, the richness in analyzing the texts to have a detailed result in qualitative research is appropriate to guide this research.

Using texts as the object of investigation makes this research rely on textual analysis. Conducting a textual analysis means the researchers ought to make an educated guess at some of the interpretations that might be taken from the text (McKee, 2003). Connecting this statement with the current study, the educated guess comes with the interpretations of the results of how logical connectors are used in two journals, one indexed in international indexation and one indexed in national indexation. This also includes interpreting the results of

the current research with the preceding research in the same area (logical connectors) that have different findings.

3.2 Methods of Data Collection

According to Cresswell (2009), qualitative research employs different data collection, analysis and interpretation compared to quantitative method. He further mentions the well-known qualitative method in collecting data, which is, by examining documents, observing behavior or interviewing participants. Thus, the data may take forms of texts, audio files, video files or field notes. Based on the statement and purposes of the research, this research gathered the data required through examining documents, and they may result in the form of texts.

The data were in the form of research articles collected from two journals with different indexation levels: one journal indexed in international indexation and one journal indexed in national indexation. Although they are different in terms of indexation levels, both journals are open-accessed, meaning that the archives are accessible for everyone. This made the process of data collection was easier because the data are already computerized in the form of PDF (Portable Document Format). The similarity of both journals is also in terms of the area they comprise. Both journals are in the area of linguistics and literature, comprising the topics lingering on not only linguistics and literature, but also language education.

There were thirty English research articles taken from both journals, with specification of fifteen articles from journal with international indexation and fifteen articles from the national indexed journal. This number of data is considered enough because multiple sources are preferred to review, make sense and organize into categories or theme. These numbers of articles taken from both sources were collected purposively in regards to published year of the research articles and the nationality of authors. For sample data from the journal indexed in international indexation, the chosen research articles were ranging from 2014 until 2018, and were written by Indonesian authors. Meanwhile, the sample data from

the journal indexed in national indexation were taken from 2015 until 2018, and were written in English by Indonesian authors.

Based on these considerations in selecting which articles can be the samples for the research, the data collection came into a specification for each corpus as follows

Table 6. Specification of the sample data

Specification / Corpus	INT	NAT
Total articles	15	15
Corpus size (in words)	93,702 words	68,110 words
Total words (30 articles)	161,812 words	

3.3 Stages of Analysis

According to Hatch (2002), analysis means "organizing and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, make interpretations, mount critiques, or generate theories" (p. 148). In relation to this, Shamoo and Resnik (2003) define data analysis as the process of interpreting and reviewing the data collection. Thus, based on the statements and aims of the research, the data were analyzed in order to answer the research questions proposed.

The thirty selected articles from two corpora that have been given codes: INT-01 until INT-15 for INT data and NAT-01 until NAT-15 for NAT data, were inserted into Laurence Anthony's concordance program (AntConc) which is able to investigate almost any language patterns (Krieger, 2003). AntConc concordance program also has the capability of spotting a list of words in one search. Therefore, a search of forty conjunctive adverbials was easy in just one-time search. These forty-one conjunctive adverbials are as follows.

Table 7. List of conjunctive adverbials (Celce-Murcia & Larsen-Freeman, 1999, p. 530)

No.	Class	Conjunctive Adverbial
1.	Addition	in addition moreover furthermore besides also that is in other words for instance likewise similarly
2.	Adversative	however nevertheless despite (this) in contrast in fact actually on the other hand at the same time instead rather on the contrary at least in any case anyhow at any rate
3.	Causal	therefore consequently for that reason thus then in that case otherwise
4.	Temporal	then next first second

		last finally up to now to sum up

The search results did not immediately become the starting point of the investigation towards the use of conjunctive adverbials. These results should go through elimination process; that is, to eliminate the conjunctive adverbials that function as 'non-connectors'. Once the search results were 'clear' from the non-connectors, the clean results from each corpus were classed according to the function of the adverbials, namely additive, adversative, causal and sequential. The result of the frequency of occurrence was in percentage, and was written down in the table as follows.

Table 8. The table model of the overall frequency of CAs in classes

Rank	Class of CAs	Percentage (%)
1		
2		
3		
4		

Meanwhile, to answer the last research question that queries about the use of the most dominant conjunctive adverbial(s) in the whole corpus, the collection of the result of the prior analysis was required in order to draw the answer. The data were, then, further analyzed to decipher whether the conjunctive adverbials in each corpus are correctly or incorrectly used. This analysis answered the second research question as well as meeting one of the aims of the study; that is, to investigate whether the most dominant conjunctive adverbial(s) used in each corpus are/is used correctly or not. The investigation was conducted by breaking the sentences into S1 as the referencing sentence and S2 as the subordinate sentence following the conjunctive adverbials.

Table 9. Analysis of use

Excerpt	Sentence		Use
	S1	S2	

The full excerpt was divided into two parts: S1 and S2. S1 is the code for information precedes the occurrence of conjunctive adverbial, and S2 is the information that is brought by the conjunctive adverbials.

To see the big number in how the most dominant conjunctive adverbial is used, the collection of the result of the prior analysis was required in order to draw the answer. The results of the prior analysis are shown in the form of numbers in the table as follows.

Table 10. The table model of adverbial frequency of occurrence that is correctly or incorrectly used

Sample Data	Correctly Used	Incorrectly Used
INT		
NAT		

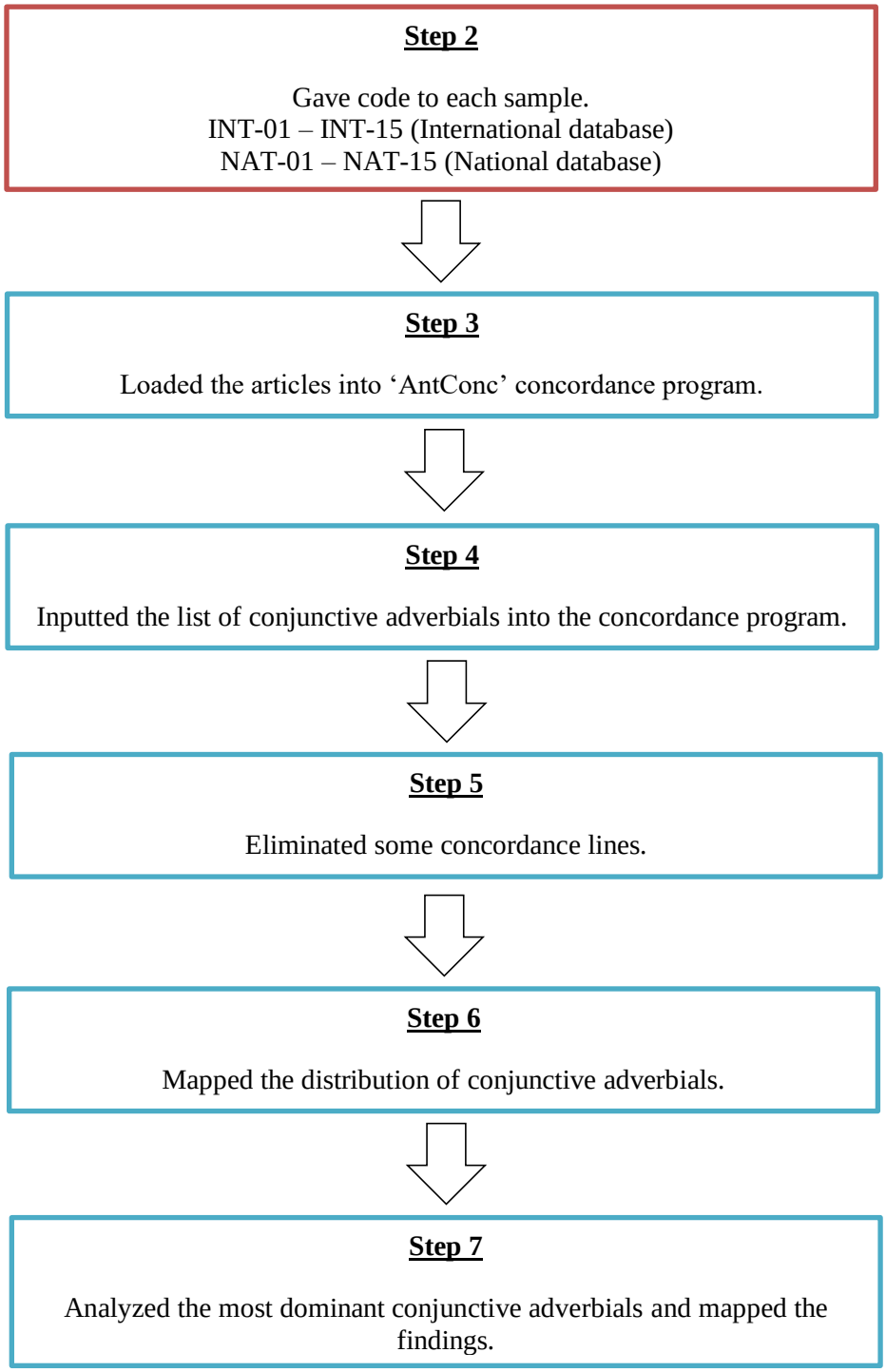
The total number of correct placement of conjunctive adverbial was placed in 'correctly used' column; meanwhile the errors in using conjunctive adverbials were placed in 'incorrectly used' box. The table above, furthermore, may help in drawing conclusion; that is, the distinction in numbers between the numbers of the correct and incorrect use in all sample data from both groups.

In summary, the steps were as follows.

FLOWCHART OF PROCESS

Step 1

Collected thirty RAs from two journals, with the specification as follows.
Fifteen articles indexed in international database
Fifteen articles indexed in national database



3.4 Example of Data Analysis

In order to make an envision of how the conjunctive adverbial analysis was conducted, this part shows what to do once the data had been collected from the sources chosen.

The concordance lines containing the most dominant conjunctive adverbial were converted into full-sentence format. This was done so that the information preceding the subordinate sentence and the content of the subordinate sentences can be seen in a clearer mode. The example of a full sentence format is as follows.

> *But they were more able to translate narrative and argumentative texts than descriptive text due to text structure and characteristics as well as students' lack of vocabulary acquisition. However, in general the students had a slightly sufficient ability to translate those three text types from French into Indonesian. Errors in translation were also identified in relation to their knowledge of both source and target languages.*

Figure 4. Full-sentence format

All hits that had been converted into full-sentence formats then underwent the process of analysis of use by putting the full-sentence format into tables as is explained in chapter three. The example of the use of this table to investigate the use of connectors is as follows.

Table 11. Example of analysis

Excerpt	Sentence		Use
	S1	S2	
But they were more able to translate narrative and argumentative texts than descriptive text due to text structure and characteristics as well as students' lack of vocabulary acquisition. **However**, in general the students had a slightly sufficient ability to translate those three text types from French into Indonesian.	But they were more able to translate narrative and argumentative texts than descriptive text due to text structure and characteristics as well as students' lack of vocabulary acquisition.	…, in general the students had a slightly sufficient ability to translate those three text types from French into Indonesian.	**Incorrect. S1 is opened by 'but', so it is unclear what is being contrasted. (See Crewe, 1990).**

Once the excerpt had been broken down into S1 and S2, it was analyzed in order to see the correlation between the information brought by the two sentences, and whether the correct use of certain adverbials is proper for bringing the information together. The use of the conjunctive adverbial (correct or incorrect) was written in the last box, containing the function of the adverbial used in the particular excerpt. Once the analysis of the most dominant conjunctive adverbials was done, the data were drawn into percentages in order to show the overall result of the analysis in numbers.