### **CHAPTER IV**

This chapter presents the analysis and the interpretation of the data obtained based on the result of students' abstract thesis. The chapter involves findings and discussions. Each finding has discussions of the data that is presented according to the research questions.

#### 4.1 Findings

As noted earlier in Chapter I, this study aims to examine the types of collocations and the incorrect collocation used by students of *Politeknik Penerbangan Surabaya*. After gathering and analyzing the data, the study found that there are many collocations in the abstract thesis of the students.

To assess the acceptability of the usage of collocations created by the students, Oxford Collocations Dictionary for Students of English offers links to 250,000 word combinations and 75,000 explanations on how such collocations are used, while the British National Corpus is also used to include details about the terms for which headwords could be combined. The British National Corpus contains 100 million words of written and spoken language; the written part includes 90 million words from eight genres.

Based on the research finding, the researcher has discussed some theories concerning the types of collocation in abstract thesis of students and incorrect collocation made by the student.

### **4.1.1 Types of Collocation Used by the Students**

Based on the research findings, the researcher classified the types of collocation based on Benson, *et al* (1997). Benson, *et al* (1997) formulated the types of collocation into two categories there are lexical and grammatical collocation.

Based on the document analysis from 20 abstract thesis, the researcher concluded that there are 12 abstract thesis use collocation, 10 types of collocation found in the students' abstract thesis, both lexical and grammatical.

- a. The lexical collocation consists of
  - 1) Adjective + Noun,
  - 2) Noun + Noun,
  - 3) Verb + Noun,
  - 4) Phrase,
  - 5) Verb + Preposition,
  - 6) Verb + Adverb.
- b. The grammatical collocation consists of
  - 1) Noun + preposition,
  - 2) Adjective + Preposition,
  - 3) Verb + Adjective,
  - 4) Preposition + Noun.

The most prominent collocation made by the students is lexical collocation that accounted 82 which divided into 6 types of pattern. The pattern with most frequently appear in students' writing is Adjective + Noun which counted 21. Meanwhile, the use of grammatical collocation on students' writing is not too common for only 21. The pattern with most frequent appear in students' writing is Noun + Preposition which counted 16. In other words, students prefer to use lexical collocation instead of grammatical collocation.

#### **4.1.2 The Incorrect Collocation Made by the Students**

Based on the analysis, lexical collocations were found to be the most incorrect collocation created by the students in their writings. Students made most mistakes in using collocations of Adjective + Noun. There are two major issues faced by students when using collocation in their writing product. First, students change a particular word with its synonym. We can take a look at one of the examples of Adjective + Noun collocation produced by students in their writing; it was found that some of students used "literature studies" rather than "research". "Literature" and "research" have similar meanings when it comes in a single word, but those words have different use in a sentence. "Literature" often refers to poetry and fictional text, while "research" refers to detailed study into a specific problem, concern, or issue using the scientific method. The students prefer using "literature" to collocate with "studies" because it translates to Indonesian language as "studi literatur". They seemed not to choose the word "research" because they have already thought in their mother language not directly in target language. So that way, the word "literature" cannot replace the use of "research" in "research studies" as it will produce different meaning.

This finding is consistent with Boonyasaquan (2006: 79) which claimed that collocations have the components which cannot be substituted or modified by a synonym or word of similar meaning. It means that collocations are the word combination which has its own meaning and it comes naturally as native speaker uses in their everyday conversation.

The next issue faced by students is that the mother tongue of students' affects the use of collocations. Another example is "coordination from", which is incorrect because in English, the word "coordination" usually collocates with "between", not "from". On the other hand, in Indonesia, the word "from" (daripada) can collocate with the "coordination" (koordinasi). Thus, mother tongue influences their English in that way, particularly when using collocations. It means that we cannot deny that as students produce collocations to the target language, their first language affects the process of collocations transition.

Based on the findings, lexical collocations in general and Adjective + Noun collocations in particular have become the most types of collocation errors for the

students' essay writings. Hence, this research finding has shown that most student used their mother tongue in their writing, instead of using collocation naturally. So that way, when they communicate their ideas in their writings, their first language affects the target language.

# 4.2 Discussion

## **4.2.1** The Types of Collocations Used by Students

From 20 abstract thesis produced by students of *Politeknik Penerbangan Surabaya*, there are 12 abstract thesis use collocation. The collocations produced by the students in their abstract thesis are as follow: 1) adjective + noun, 2) noun + noun, 3) verb + noun, 4) noun + preposition, 5) phrase, 6) verb + preposition, 7) adjective + preposition, 8) verb + adjective, 9) verb + adverb, and 10) preposition + noun. Based on this categorization, some types are included in grammatical collocations while the others are included in lexical collocations.

Type of collocation	Pattern	Example of collocation used by the student	Total	
Grammatical	Noun + preposition	due to, form of, lack of, distribution between, purpose of, coordination between, communication between, coordination between	16	
Grammatical	Adjective + preposition	adjacent to, related to	2	
Grammatical	Verb + adjective	was instrumental, considered appropriate	2	
Grammatical	Preposition + noun	in progress	1	
Total	4 patterns	E 3 · · · /	21	

Table 3. Types of Grammatical Collocations Used by Students

### Table 4. Types of Lexical Collocations Used by Students

Type of collocation	Pattern	Example of collocation used by the student	Total
Lexical	Adjective +	direct observation, ineffective management, good	21

Type of collocation	Pattern	Example of collocation used by the student	Total	
	noun	communication, efficient operation, outbound traffic, accurate data, precise data, important role, social integration		
Lexical	Noun + noun	data processing, information services, traffic flow, safety aspect, problem solving, air traffic, data collection, study programs, quality standards, quality assurance, data storage, research method, air traffic, military flight, military personnel, flight schedule, main problem, main task, main function	29	
Lexical	Verb + noun	cause problem, have impact, have credibility, answer question, provide service, obtain data, provide solution, provide input, provide information, take place, carry out duty, conduct research, increase knowledge, make contact, reduce burden, provide facility, provide communication, affect performance	20	
Lexical	Phrase	result of the study, purpose of the research, lack of coordination	8	
Lexical	Verb + preposition	transform into, relate to	2	
Lexical	Verb + adverb	put forward	1	
Total	6 patterns		81	

As the table showed above, there are 10 different patterns of collocations used by students in their abstract thesis. The total number of collocations used by students is 102. The most frequent type of collocation that occurs in students' writing is Adjective + Noun. The total number of Adjective + Noun collocations is 21 from 12 abstract thesis. Adjective + Noun is typically involved in lexical collocation. So that way, the first type of collocation which commonly produced by students in their abstract thesis is Adjective + Noun.

The second type of collocation which commonly occurs in students' writing is Noun + Noun collocation. The total number of Noun + Noun collocation which commonly occur in students' abstract thesis is 29 from 12 abstract thesis. Noun + Noun is typically involved in lexical collocation.

The third type of collocation which commonly occurs in students' writing is Verb + Noun. Verb + Noun collocation is typically involved in lexical collocation. The total of Verb + Noun collocation which commonly occur in students' writing is 19 from 12 abstract thesis.

The next type of collocation which commonly occur in students' argumentative abstract thesis is Noun + Preposition collocation. Noun + Preposition collocation is involved in grammatical collocation. The total number of Noun + Preposition collocation which commonly occur in students' writing is 16.

After Noun + Preposition, Phrase become type of collocation which typically found in students' writing. Phrase is involved in lexical collocation. The total number of phrase collocation which commonly occur in students' essay writing is 7.

The next types of collocation are Verb + Preposition collocation, Adjective + Preposition collocation, and Verb + Adjective collocation. Verb + Preposition is typically involved in lexical collocation, while Adjective + Preposition and Verb + Adjective is typically involved in grammatical collocation. The total of Verb + Preposition collocation, Adjective + Preposition collocation, and Verb + Adjective collocation. Verb + Preposition which commonly occur in students' argumentative essay writing is 2 each.

The last types of collocation are Verb + Adverb collocation and Preposition + Noun collocation. Verb + Adverb is typically involved in lexical collocation., while Preposition + Noun collocation is typically involved in grammatical collocation. The total of Verb + Adverb and Preposition + Noun which commonly occur in students' argumentative essay writing is 1 each.

Therefore, based on the categorization, the total number of lexical collocations which typically found in students' writing is 82, while the total of grammatical collocations which commonly occur in students' argumentative essay writing is 21. So, we can claim that the most common type of collocations used by students is lexical collocation.

### 4.2.2 The Incorrect Collocations Made by Students

In this research, it is found that there are some incorrect collocations found on students' abstract thesis. For more detailed explanation, the data are described in tables.

4.2.2.1 Verb + Noun Incorrect Collocation

The incorrect Verb + Noun collocations in students' abstract thesis are shown in table below.

Code	Туре	Incorrect	Sentence
S3/4/L	Verb + noun (conduct observation)	conducting observation	The method used is descriptive qualitative to describe the conditions and facts that occur based on data obtained by <b>conducting observations</b> , questionnaires and interviews that have been conducted during the lime month on October 3, 2018 to February 28, 2019.

 Table 5. Verb + Noun Incorrect Collocations

The table above showed that the type of collocation words that found in student number 3 collocates the word "conduct" with the word "observation" The word "conduct" refers to *organize and carry out*, while the word "observation" refers to *the action or process of observing something or someone carefully or in order to gain information*. The word "observation" is better suited to collocate with the word "make" that means *to execute*. Therefore, the correct collocation word "observation" is the word "conduct".

4.2.2.2 Adverb + Adjective Incorrect Collocation

The incorrect Adverb + Adjective collocations in students' abstract thesis are shown in table below.

Table 6 Adverb +	Adjective	Incorrect	Collocations
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Code	Туре	Incorrect	Sentence
S5/3/L	Adverb + adjective	close related	The increasing air traffic services <b>close</b> <b>related</b> with the performance all the unit,
	(closely related)		including the Air Traffic Service Reporting
			Office (ATSRO) unit with Flight Data
			Operation (FDO) unit.
S12/3/L	-		The increasing air traffic services <b>close</b>
			related with the performance all the unit,
			including the Air Traffic Service Reporting
			Office (ATSRO) unit with Flight Data

		Operation (FDO) unit.
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The table showed that the type of collocation word that found in the student 5 and 12 is lexical collocation consist of Adverb + Adjective pattern. In the incorrect collocation, the adverb "close" collocates with the adjective "related". "Close" refers to *a short distance away or apart in space or time*, while "related" means *be causally connected*. The word "close" is not suitable to collocate with the word "related", it is better to use the adverb form "closely" to modify the adjective. Therefore, the correct collocation of the word "related" is the word "closely".

### 4.2.2.5 Verb + Adverb Incorrect Collocation

The incorrect Verb + Adverb collocations in students' abstract thesis are shown in table below.

Code	Туре	Incorrect	Sentence
S3/4/L	Verb + adverb	run	The purpose of writing this final
Ш	(run efficiently)	optimal	project is to find out how to optimize LOCA which is considered still not able to <b>run optimal</b>
2		J.Y.Z	between ARO Unit and Airlines Operator and ATFM.

Table 7 Verb + Adverb Incorrect Collocations

From the table above, it is shown that the type of collocation word that found in the student 3 is lexical collocation consist of Verb + Adverb pattern. In the incorrect collocation, the verb "run" collocates with the adverb "optimally". "Run" refers to *continue in force, operation, or production*, while "optimally" means *in the best or most favorable way*. The word "run" is more suited to collocate with the word "efficiently", which means *in a way that achieves maximum productivity with minimum wasted effort or expense*. Therefore, the correct collocation of the word "run" is the word "efficiently".

# 4.2.2.6 Noun + Preposition Incorrect Collocation

The incorrect Verb + Adverb collocations in students' abstract thesis are shown in table below.

Туре	Incorrect	Sentence
Noun + preposition	coordination	The emergence of these
(coordination between)	from	obstacles is due to the frequent delay of Airlines Operators in sending
		information about new slot time updates so that the slot
		time management process carried out by ACO personnel serving in the
~ MII	1. 11	ARO Unit will be
AS INO	MA,	hampered, besides the lack of <b>coordination from</b> the
1 10 -	Sec. 14	ATFM unit regarding Slot
	At P	Time changes change of slot time.
	Noun + preposition	Noun + preposition coordination from

#### **Table 8. Noun + Preposition Incorrect Collocations**

From the table above, it is shown that the type of collocation word that found in the student 3 is grammatical collocation consist of Noun + Preposition pattern. In the incorrect collocation, the noun "coordination" collocates with the preposition "from". "Coordination" refers to *the organization of the different elements of a complex body or activity so as to enable them to work together effectively*, while "from" indicates *the point in space at which a journey, motion, or action starts* or *the point in time at which a particular process, event, or activity starts*. The word "coordination" is more suited to collocate with the word "between", which means *at, into, or across the space separating (two objects or regions),* because "coordination" involves more than one element to work together. Therefore, the correct collocation of the word "coordination" is the word "between".