

CHAPTER III

RESEARCH METHODOLOGY

This chapter provides the methodology employed in this study. It contains research design, data collection and data analysis, and concluding remarks regarding this chapter. The research design consists of the theoretical framework of the study. The data collection includes the procedure of collecting the data used in the study. Then, the process of analyzing data is explained in the data analysis.

3.1 Research Design

As it has been stated in the first chapter, this research attempts to examine the morphological awareness of Indonesian children between the ages of 5 and 6 in two kindergartens at reduplication level. The level of awareness, in this case, is sought to reveal the level of identifying and manipulating words and its formation. Moreover, the present study also attempts to explore the characteristics of the high-performing and low-performing students whose morphological awareness level have been assessed.

The present study employs a descriptive quantitative method for collecting and analyzing the data. Quantitative research method involves numbers which later can be systematically measured (Blackstone, 2012; Creswell, 2014; & Perumal, 2014). The measurable numbers are later used to investigate certain phenomena and their relationships. Consequently, the data of the presents study are in form of students' scores on their morphological awareness tasks and numerical values to participants' responses. Moreover, a descriptive approach can be explained as an approach that is functioned as a tool to organize data into patterns that emerge during the process of analyzing data (Knupfer & McLellan, 1996). Therefore, the quantitative descriptive method has been considered relevant to be employed in this present study because the data collection process also involved some numerical data which are collected from students' assessment

results, parents' interview, and parents' questionnaire. To describe the findings, the collected students' scores were calculated by using statistical descriptive calculation by using percentage, mean, and also standard deviation. Meanwhile, the numbers of participants' responses were converted into frequency and presented in several figures.

3.2 Data Collection

In the following subchapters, the location of the study, participants, and the process of data collection is discussed. The names of the school, as well as the participants, are not explicitly mentioned in this study due to the reason for ethics. The data is collected from August to November 2017.

3.2.1 Location of the Study

The collected data in this study were taken from two kindergarten schools in the northern Bandung. These schools are known to be a representative location for data collection. A preliminary observation was conducted before choosing the schools as the location of the study. The preliminary observation found that these two schools have different beliefs regarding the approach to introducing reading and writing skills to children. School A implicitly teaches language skills through various activities while school B explicitly teaches alphabetic symbols to the students to improve their language skills. The number of the students in both schools is also quite a lot. Furthermore, the distance of the schools also becomes an aspect of consideration.

3.2.2 Participants

The participants of the study were 42 kindergartners aged 5 to 6 from two schools in North Bandung. In both school A and B, there were 21 children who participated in this study which consists of 10 female children and 11 male children.

3.2.3 Instruments and Materials

3.2.3.1 Tests

Two aspects were investigated in this research i.e. the ability to identify inflectional and derivational reduplication morphemes in the identification task and manipulate inflectional and derivational reduplication morphemes in the word analogy task. The tasks only include full reduplication and affix reduplication morphemes. The table below presents the aspect of morphological awareness assessed in the two morphological awareness tasks.

Table 3.1

Aspect of Morphological Awareness

Variable	Aspect	Indicator
Morphological awareness	Morpheme identification	Children are able to identify inflectional and derivational forms of reduplication morphemes in accordance with the respective sentence given.
	Morpheme decomposition and production	Children are able to manipulate inflectional and derivational forms of reduplication morphemes from the given base words.

The indicators were converted into two different tasks called reduplication identification task and reduplication word analogy task. Since there are very limited studies concerning morphological awareness in Indonesian context, this study presents a novel content in the instruments even though the designs were inspired by the instruments used in previous studies. The identification task is adapted from the instrument named ‘suffix choice test’ by Nagy, Berninger,

Abbott, Vaughn, and Vermeulen (2003). Twelve presentation slides which include a picture in GIF format, a sentence with a blank space, and three different words were provided in a laptop. Furthermore, the identification task was delivered orally by the researcher. Meanwhile, the word analogy task is inspired by Kirby, Deacon, Bowers, Izenberg, Wade-Woolley, and Parrila (2012). The materials used in these two tasks correspond to the teaching materials in schools to minimize the possibility of unfamiliar materials for the students. The tasks were also conducted orally. The example of the identification task is as follows.



Figure 3.1 Sample instrument of identification task

From the figure above, it can be seen that there is a picture in GIF format, a sentence with a blank space, and three words. The participants were to identify the correct reduplication form to fill the blank space in the sentence which best describes the picture provided. In addition to the identification task, the sample instrument of word analogy task is shown below.

Table 3.2

Sample Instrument of Word Analogy Task

Inflected Items

Analogy	Target
meja : meja-meja :: rumah : _____	rumah-rumah
buku : buku-buku :: pensil : _____	pensil-pensil
usap : mengusap-usap :: aduk : _____	mengaduk-aduk
lari : berlari-lari :: jalan : _____	berjalan-jalan

From the table above, it can be seen that there is a pair of words and base words which do not have their pairs. Children were asked to make the same kind of change to the given words as were made in the original pair. The detailed test items are presented in the following table:

Table 3.3

Identification Task's Detailed Indicators and Test Items

Indicator	Sub-indicator	Morpheme Patterns	Test Items
Children are able to identify the correct words in accordance with the picture provided	Children are able to identify inflectional full reduplication morphemes	1. stem reduplication (noun) 2. stem reduplication (noun)	1. Doraemon mengeluarkan barang-barang dari kantongnya. 2. Bunga-bunga itu bergerak tertiuip angin.
	Children are able to identify inflectional affix reduplication morphemes	1. affix <i>meng-</i> + stem reduplication (verb) 2. affix <i>ber-</i> + stem reduplication (verb)	3. Patrick menggosok-gosok kepala kakek ikan. 4. Pikachu berenang-renang di laut.
	Children are able to identify derivational full	1. stem reduplication (noun) 2. stem	3. Spongebob menjadi mata-mata. 4. Spiderman

reduplication morphemes	reduplication (noun)	merayap di langit-langit rumah.
Children are able to identify derivational affix reduplication morphemes	1. affix <i>di-</i> + stem reduplication (verb)	3. Bola itu ditendang-tendang oleh Boboiboy.
	2. affix <i>ter-</i> + stem reduplication (verb)	4. Anak anjing itu terjatuh-jatuh di tangga.

Table 3.4

Word Analogy Task's Detailed Indicators and Test Items

Indicator	Sub-indicator	Morpheme Patterns	Test Items	
			Analogy	Target
Children are able to manipulate the words in accordance with the given words as were made in the original pair	Children are able to produce inflectional full reduplication morphemes	1. stem reduplication (noun) 2. stem reduplication (noun)	1. meja : meja-meja :: rumah : _____ 2. buku : buku-buku :: pensil : _____	1. rumah-rumah 2. pensil-pensil
	Children are able to produce inflectional affix reduplication morphemes	1. affix <i>meng-</i> + stem reduplication (verb) 2. affix <i>ber-</i> + stem reduplication (verb)	1. usap : mengusap-usap :: aduk : _____ 2. lari : berlari-lari :: jalan : _____	1. mengaduk-aduk 2. berjalan-jalan
	Children are able to produce derivational	1. stem reduplication (noun) 2. stem	1. ibu : ibu-ibu :: anak : _____ 2. cepat : cepat-cepat	1. anak-anak 2. kuat-kuat

full reduplication morphemes	reduplication (adjective)	:: kuat : _____	
Children are able to produce derivational affix reduplication morphemes	1. affix <i>di-</i> + stem reduplication (verb) 2. stem reduplication (noun) + affix <i>-an</i>	1. lempar : dilempar- lempar :: tepuk : _____ 2. kuda : kuda- kudaan :: mobil : _____	1. ditepuk- tepuk 2. mobil- mobilan

3.2.3.2 Questionnaire

The questionnaire was administered to the students' parents with the highest and lowest assessment scores. The questionnaire was mostly in closed-ended questions which required the parents to put a check in one of the boxes in each statement. The materials of the questionnaire were modified from Mazka's (2014) manual parents' interview and Putri's (2017) parents' questionnaire. The questionnaire contains information about the child, parents' background, linguistic background, and family's background.

3.2.3.3 Interview

The interview was conducted to the students' parents with the highest and lowest assessment scores in mostly close-ended questions. The materials were adapted from Putri's (2017) parents' interview in spirit following Hoff (2006) and Mazka (2014). The interview consists of several questions regarding children's literacy ability, linguistic background, and home environment.

3.2.4 Procedure and Scoring

3.2.4.1 Administering the Assessment Tasks

Before administering two morphological awareness tasks, the researcher conducted a pilot study to ten kindergarten students. The purpose of this step is to

know whether the instruments are suitable for children or required to be revised. The instruments later are validated by the teachers in the chosen schools.

There are several steps in running the test. First, the researcher had a conversation with the participants. Then, the researcher started the identification task by showing pictures related to the questions and asking children to describe what they saw in the picture. The children later were asked to choose one among three choices which best represents the picture, for example by saying, “*Kalau gambar ini, yang benar ngomongnya yang mana ya?*” or “*Coba lihat gambarnya, kalau ngomongnya kayak gini kedengerannya enak ngga?*”. After finishing the identification task, the researcher then conducted the word analogy task. First, children were given several examples of reduplication morphemes. The researcher then began to ask the questions, for instance, “*Kalau buku ada banyak disebutnya buku-buku, kalau pensil ada banyak disebutnya?*”. The last step after conducting both tasks was scoring. The participants' correct choice was scored by 1 and the incorrect choice is scored 0. The example of the score tabulation is shown below.

Table 3.5

Scoring Sheets of the Children

No	Name	Test Items												Total Score
		1	2	3	4	5	6	7	8	9	10	11	12	
1	P1	1	0	1	1	1	0	1	1	1	1	0	0	8
2	P2	1	1	1	0	0	1	0	0	0	1	0	1	6
3	P3	1	0	0	1	1	1	0	0	1	0	0	0	5
4	P4	1	1	1	1	1	0	0	1	0	1	1	1	9
5	P5	1	0	1	1	1	0	0	0	0	1	0	1	6
6	P...													...

The table above is used to analyze the data quantitatively. P1, P2, and P... correspond to names of the participants which are hidden due to the ethical reason. The collected scores were calculated and analyzed by carrying out descriptive statistics method.

3.2.4.2 Distributing the Questionnaire

The questionnaire was distributed to students' parents with the highest and lowest assessment scores to discover students' social, linguistic, and family background. The distribution of the questionnaires for parents whose children get the highest and lowest score aims to see the characteristics of children. The questionnaire was given after the assessment test was done. The questionnaire was written in Indonesian, so the parents could understand each statement well. The questionnaire consists of some information and the parents were asked to put a check in one of the boxes according to their opinion of each statement.

3.2.4.3 Conducting the Interview

The interview was conducted to students' parents with the highest and lowest assessment scores to discover the educational background of the students at the school. The interview was given after the assessment test was done. The interview was asked in Indonesian, so the parents could understand each question well. The interview consisted of three parts of information: students' socioeconomic status, students' linguistic background, and students' home environment.

3.3. Data Analysis

This present study employs descriptive statistics for analyzing the data. Mean, percentage, and standard deviation were calculated by using Microsoft Excel. Mean or average is equal to the sum of all the values in the data divided by the number of values in the data. It was used to discover the general performance of children in both tasks. The standard deviation was calculated to see the spread of children's scores. Moreover, by calculating the percentage, the highest and the lowest test item for each category answered by the children could be observed. After doing different kinds of calculation, the data were analyzed based on several categories, such as morphological process (inflection and derivation), reduplication type (full and affix), and test type (identification and word analogy). Additionally, the questionnaire and interview were presented in the form of frequency to discover the characteristics of high-performing and low-performing students.

3.4. Concluding Remarks

This chapter has shown the methodology of the research which is applied in this present research. The design of the research, data collection including the location of the study, the participants, and the instruments, as well as the data analysis has been explained respectively. The findings and discussion of the study will be presented in the next chapter.