

## CHAPTER III

### RESEARCH METHODOLOGY

This chapter discusses the methodology applied in this research. The methodology includes (1) Research Design, (2) Research Participants, (3) Research Apparatus, (4) Data Collection, (5) Data Analysis (6) Concluding Remarks.

#### 3.1 Research Design

This study applied quantitative analysis or design as a means of collecting as well as analyzing data. Quantitative design or analysis was, in an analytical and scientific sense, about counting something, in this case, the results of the study, as stated by Levon (2010). In this study, the types of the collected data underpinning the research would be in the form of numerical as the results of the questionnaire circulated. The questionnaire covered a set of to-be-translated words used to gain participant responses in order to find out participants or bilinguals' understandings about the semantic representation in each word. The questionnaire was distributed by displaying it on the computer screen and the direct responses monitored and noted by the researcher.

In an attempt to have a better understanding of the research, involving representative data in numerical forms was one of the most important and indispensable phases in this present study. In this regard, the presence of quantitative analysis used as an analytical tool would remarkably contribute towards the reliability of the study. As mentioned by Levon (2010), there was a great deal of quantitative analytical tools in the form of statistics that could be utilized in research analysis.

To account for the results or findings in this present study, descriptive statistics would be functioned to process and to interpret the data with the purpose of disclosing the red line behind the phenomenon under investigation. As well planned, this statistical analytical tool was applied in this present study to see the accuracy of

participants' answers and in translating three types of word class in both forward and backward translation.

### **3.2 Research Participants**

As highlighted briefly in the previous section, early-sequential bilinguals were bilingual people who began to learn first language in the early age and almost in the same time (early childhood) they also started exposing second language (Harley, 2005). The participants involved in this research were taken from about 30 early sequential Sundanese-Indonesian bilinguals consisting of 15 male and 15 female participants. This proportion of the involved participant number was in line with Dornyei's (2007) statement who claimed that in order to fulfill and reach a normal distribution, 30 people or participants should be included and this number can be compensated by the use of certain statistical procedures.

In addition, this number of participants was replicated from some previous studies, in which mostly they involved around 15 to 30 or 40 Participants. In order to formalize the scope, the bilinguals taking involvement in this research would be selected from university students in West Java and Banten. The Participants came from Indonesia University of Education (UPI) (the majority), *Universitas Islam Negri Bandung* (UIN Bandung), *Universitas Sultan Agung Tirtayasa* (UNTIRTA), and *Institut Pertanian Bogor* (IPB). Basically, these different universities did not make any significance towards the flow of the study because the main characteristics required in this research was the participants whose their L1 was Sundanese and L2 was *Bahasa Indonesia*.

To respect the privacy of the participants and be strict to the ethical codes in conducting research, the pseudonym and unnamed will be served as. Before the tests was carried out, the participants would be confirmed by asking them several needed questions, especially about when they begin learning *Bahasa Indonesia* in childhood. This step aimed at helping the researcher determine the validity of the Participants and

make sure that they indeed belonged to early-sequential Sundanese-Indonesian bilinguals.

### **3.3 Research Apparatus**

In this research, the materials (the to-be-translated words) would be displayed on the personal computer screen. Besides a personal computer, another apparatus required for this research was the use of tape recorder. This instrument functioned to capture the answers of the participants in the process of translating the to-be-translated words as well as finding other possible language phenomena through recording process.

In addition to the use of tape recorder, this instrument was also used to record the way participants performed in the test with the purpose of looking other language phenomena that could take place during the observation. Before the tests took place, there was a pilot test which involved five people in advance to make sure that all instruments, items, and materials for the test have been perfectly ready.

### **3.4 Data Collection**

As conceptualized in advance, one single test was carried out in this study namely Translation Production Test. This test focused on the translation task given to the 30 participants (Sundanese-Indonesian early-sequential bilinguals). To accommodate this test, 120 to-be-translated words were prepared. In this phase, the participants were asked to translate a set of the prepared to-be-translated words from L1 into L2 and vice versa (forward and backward translation).

In order to accomplish the needed data, the researcher took almost two weeks hunting the data and visiting the participants in the different places. The test for every participant took 10 to 15 minutes covering introduction, telling instructions, and

conducting the test. The test was carried out in a quiet place to avoid noise and other distractors.

### 3.4.1 Translation Test

In this test, the data were in the form of questionnaire, specifically other closed-ended item types. According to Dornyei (2007), there were many items in this type of questionnaire which covers true-false items, multiple-choice items, and range order items. In particular, this research attempted to apply true-false items. However, it should be noted that, this research did not specifically use the list of questions with their true-false choices but rather providing the to-be-translated words that should be translated individually by the participants.

The test was divided into two phases: the first phase was forward translation test; and the second phase was backward translation test. Hence, the participants would be asked to translate approximately 60 words for each directional translation, consisting of in detail 20 verbs, 20 adjectives, and 20 nouns. These to-be-translated words were presented in category.

In addition, it was important to note that the materials used in this research were taken from several dictionaries (the equivalent translation of the to-be-translated words have been verified through consulting Sundanese-Indonesia Dictionary (*Kamus Bahasa Sunda-Bahasa Indonesia*.; *Kamus Basa Sunda R.A. Danadibrata*; *Kamus Sunda-Indonesia* Online and Offline) and checked and rechecked by a Sundanese language scholar working as a lecturer and secretary of Sundanese Language Department at Indonesia University of Education.

It was important to take as a consideration that the equal translation did not only strictly refer to the equivalent translations below made by the researcher and verified by the two certified scholars but the synonymous translations or answers would also be considered as true answers, e.g., *BERJALAN* = *MAPAH/LEMPANG*. Both *MAPAH* & *LEMPANG* referred to the same concepts and it would be counted as

a true or equivalent translation. Besides the synonymous translations, mispronunciation was also considered as correct answers as long as the Participants mentioned the equivalent translation in both forward and backward translation tests.

Then, the bilinguals would be tested individually in a quiet area to avoid noise and other types of distractors. Furthermore, they would be assigned to translate and mention respectively each word displayed in the personal computer screen. Finally, when each word was displayed on the computer screen, the timing was also started. The data from the Participants would be recapitulated individually in the recapitulation of the answer sheet.

Table 3.1 The to-be-Translated Words: Verbs

No	Participant30			
	Verbs	Answer Accuracy (V/X)	Verbs	Answer Accuracy (V/X)
1.	<i>Saré (Tidur)</i>		<i>Membeli (Mésér/Meuli)</i>	
2.	<i>Lumpat (Berlari)</i>		<i>Mematuk (Macok)</i>	
3.	<i>Lempang/Mapah (Berjalan)</i>		<i>Menyelam (Teuleum)</i>	
4.	<i>Ngaput (Menjahit)</i>		<i>Menggelinding (Ngagorolong)</i>	
5.	<i>Indit/Angkat/Mios (Pergi)</i>		<i>Mengupas (Mesék)</i>	
6.	<i>Masihani/Méré (Memberi)</i>		<i>Memeluk (Nangkeup)</i>	
7.	<i>Ningali/Nempo (Melihat)</i>		<i>Menggaruk (Ngagaro)</i>	

8.	<i>Maéhan (Membunuh)</i>		<i>Melompat (Ngajol)</i>	
9.	<i>Hudang/Ugah (Bangun)</i>		<i>Mencuci (Nyeseh/Gégéroh)</i>	
10.	<i>Ibak (Mandi)</i>		<i>Menggigit (Ngégél)</i>	
11.	<i>Amprok (Berjumpa)</i>		<i>Makan (Tuang/Neda/Emam)</i>	
12.	<i>Ngadéngé (Mendengar)</i>		<i>Minum (Eueut/Nginum)</i>	
13.	<i>Nawur/Mayar (Membayar)</i>		<i>Berkedip (Ngiceup)</i>	
14.	<i>Calik/Diuk (Duduk)</i>		<i>Melipat (Ngalipet/Nilepan)</i>	
15.	<i>Cingogo/Nagog (Jongkok)</i>		<i>Menyakiti (Nganyenyeri)</i>	
16.	<i>Gundam (Mengigau)</i>		<i>Telungkup (Nangkuban)</i>	
17.	<i>Nyarios (Berbicara)</i>		<i>Meminjam (Minyem/Nambut)</i>	
18.	<i>Make (Menggunakan)</i>		<i>Berjalan (Mapah/Leumpang)</i>	
19.	<i>Ngalétak (Menjilat)</i>		<i>Berlari (Lompat)</i>	
20.	<i>Mangku (Menggendong)</i>		<i>Menendang (Najong)</i>	
Total of Correct Answer =			Total of Correct Answer =	
Time Duration (second) =			Time Duration (second) =	

Table 3.2 The to-be-Translated Words: Adjectives

No	Participant30			
	Adjectives	Answer Accuracy (V/X)	Adjectives	Answer Accuracy (V/X)
1.	<i>Nalangsa (Sedih)</i>		<i>Tebal (Kandel)</i>	
2.	<i>Bingah/Bagja (Bahagia)</i>		<i>Sakit (Nyeri)</i>	
3.	<i>Korét (Pelit)</i>		<i>Mudah (Babari/Gampil)</i>	
4.	<i>Geulis (Cantik)</i>		<i>Sulit (Hésé/Sesah)</i>	
5.	<i>Kasép (Ganteng)</i>		<i>Merah (Beureum)</i>	
6.	<i>Bodas (Putih)</i>		<i>Rakus/Gembul (Rewog)</i>	
7.	<i>Wani (Berani)</i>		<i>Manis (Amis)</i>	
8.	<i>Béréhan (Dermawan)</i>		<i>Empuk (Hipu)</i>	
9.	<i>Caang (Terang)</i>		<i>Marah (Ambek)</i>	
10.	<i>Éra (Malu)</i>		<i>Bening (Hérang)</i>	
11.	<i>Goréng (Jelek)</i>		<i>Lembek (Aduy)</i>	
12.	<i>Hideung (Hitam)</i>		<i>Ramai (Ramé)</i>	
13.	<i>Gélo (Gila)</i>		<i>Buruk (Goréng/Awon)</i>	
14.	<i>Ngora (Muda)</i>		<i>Basi (Bari)</i>	
15.	<i>Sugih (Kaya)</i>		<i>Malas (Kedul)</i>	
16.	<i>Poék (Gelap)</i>		<i>Sempurna(Sampurna)</i>	

17.	<i>Babari (Mudah)</i>		<i>Terkejut/Kaget (Reuwas)</i>	
18.	<i>Timuru (Cemburu)</i>		<i>Tamak/Serakah (Hawek)</i>	
19	<i>Lepat (Salah/Keliru)</i>		<i>Beunghar/Sugih (Kaya)</i>	
20	<i>Kuciwa (Kecewa)</i>		<i>Khawatir (Hariwang/Hawartos)</i>	
Total of Correct Answer =			Total of Correct Answer =	
Time Duration (second) =			Time Duration (second) =	

Table 3.3 The to-be-Translated Words: Nouns

No	Participant30			
	Nouns	Answer Accuracy (V/X)	Nouns	Answer Accuracy (V/X)
1.	<i>Soca/Panon (Mata)</i>		<i>Alis (Halis)</i>	
2.	<i>Keuneung (Tumit)</i>		<i>Kelingking (Cingir)</i>	
3.	<i>Cangkéng (Pinggang)</i>		<i>Punggung (Tonggong)</i>	
4.	<i>Taar (Kening)</i>		<i>Pusar (Bujal)</i>	
5.	<i>Irung (Hidung)</i>		<i>Telunjuk (Curuk)</i>	
6.	<i>Patuangan/Beuteung (Perut)</i>		<i>Tangan (Panangan/Leungeun)</i>	
7.	<i>Sampéan/Suku (Kaki)</i>		<i>Telinga (Cepil/Ceuli)</i>	
8.	<i>Tuur (Lutut)</i>		<i>Dagu (Gado)</i>	



9.	<i>Ramo (Jari)</i>		<i>Kerongkongan (Genggerong)</i>	
10.	<i>Mastaka/Sirah (Kepala)</i>		<i>Bahu (Taktak)</i>	
11.	<i>Pancén (Tugas)</i>		<i>Manfaat (Mangpaat)</i>	
12.	<i>Wanci (Waktu)</i>		<i>Ilmu (Élmu)</i>	
13.	<i>Cahara (Kehormatan)</i>		<i>Selatan (Kidul)</i>	
14.	<i>Wetan (Timur)</i>		<i>Filsafat (Palsapah)</i>	
15.	<i>Sumanget (Semangat)</i>		<i>Pelayanan (Pangladén)</i>	
16.	<i>Impénan (Mimpi)</i>		<i>Fakta (Pakta)</i>	
17.	<i>Kahéngkéran (Kelemahan)</i>		<i>Barat (Kulon)</i>	
18.	<i>Kahadéan (Kebaikan)</i>		<i>Tenaga (Tanagi/a)</i>	
19.	<i>Bati (Keuntungan)</i>		<i>Keluarga (Kulawargi/Kulawarga)</i>	
20.	<i>Kalér (Utara)</i>		<i>Perceraian (Pepegatan)</i>	
Total of Correct Answer =			Total of Correct Answer = 8	
Time Duration (second) =			Time Duration (second) = 01:46	

From this individual data, then, the data will be recapitulated as the whole data in therecapitulation (See the data in Appendix 4).

As mentioned in the previous section, the data collection of this study employed one single test, translation production test. In processing and analyzing the data, descriptive statistics was served as a means of calculating the numerical data and

then interpreting it in order to answer the formulated question. In addition, the transcriptions comprising the answers of the participants were also analyzed in order to find out other language phenomena that could take place during the test or observation.

### **3.4.2 Analyzing Word Translation Results**

The preliminary phase of the analysis was to transcribe all participants' answers from type recorder used during the test (See Appendix 2). Each participant had seven audio to be transcribed and it took some days to complete all transcription process from 30 involved participants. The next step was to count the participants' correct answers in order to find out how accurate participants answered all of the to-be-translated words in the carried out test.

When the individual data taken from each participant have been processed, the researcher then started recapitulating all data to be organized in the recapitulation data (See Appendix 3) covering the correct answers of the participants in translation test in two directions of translation. Afterwards, the data recapitulation was analyzed by using descriptive statistics. In addition to the analytical step, the transcriptions were also analyzed thoroughly in order to support the findings and to uncover other possible language phenomena that could take place during the observation.

### **3.5 Concluding Remarks**

This chapter has described the methodology underpinning the study, including the research design, research Participants, research apparatus, data collection, data analysis. As obviously stated above, this study applied the quantitative approach in running the data collection and data analysis. Coming to the main part of this present study, the next section will discuss research findings as well as their discussion thoroughly.