

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents the research methodology to investigate English phonological awareness of first grade students at an Elementary School in Northern Bandung. This chapter is subdivided into research questions, research design, participants of the study, data collection, data analysis, and concluding remarks.

3.1. Research Questions

This study is aimed to answer the following formulated questions:

1. What is the English phonological awareness of first grade students at an Elementary School in Northern Bandung?
2. What factors affect English phonological awareness?

3.2. Research Design

To answer the questions in this study, the researcher employed a mixed method design. A mixed method design is a method that adapts both qualitative and quantitative method in one study (Creswell, 2014). A mixed method design is used when all methods have bias and weaknesses of an idea, and the collection of quantitative and qualitative data neutralize the weaknesses of each form data (Jick, 1979 cited in Creswell, 2014). Moreover, Creswell (2014) added that a mixed method design allows a researcher to use multiple forms of data drawing on all possibilities in quantitative and qualitative methods. Thus, statistical and text analyses are needed to evaluate the databases interpretation.

This study used the model of an explanatory sequential mixed method. This model is used when the researcher conducts a quantitative research, analyzes the result and then builds on the results to explain them in more detail with a qualitative research (Creswell, 2014).

This study was conducted to explore and find out students' performance in English phonological awareness, factors influencing English phonological awareness, and as well as an evaluation for parents and school teachers concerning phonological awareness. Two questions emerged, in case the first question should be answered quantitatively and the second one should be answered qualitatively.

3.3. Participants of the Study

This study was conducted at an Elementary School in Northern Bandung. The primary data were taken from a class of first grade as the population. The class consisted 24 students who were around six to seven years old, but only 18 students were taken as the sample due to parents' agreement that their child was taken as the main participant for this study. The first grade students were sampled as a follow up to Mazka's (2014) study on phonological awareness but in a different language context. A particular class was selected with the assistance and suggestion from the first grade English teacher. The following table is the list of the students in code name.

Table 3.1.

List of the students in code name

No.	Student's code	No.	Student's code
1.	SA	10.	SO
2.	SC	11.	SP
3.	SD	12.	SQ
4.	SE	13.	SR
5.	SG	14.	SS
6.	SH	15.	ST
7.	SI	16.	SU
8.	SJ	17.	SW
9.	SL	18.	SX
The total of the students		18	

Two teachers of the school participated in this study, they were: a homeroom teacher (TC-1) and an English teacher (TC-2). TC-1 is a female teacher who has been teaching for seven years. Her educational background is from Elementary Education. TC-2 is a female teacher who has been teaching English for eleven months. Her educational background is from English Education.

The last group of participant consisted of the students' parents. They were involved because this study needed the data about the variety of linguistic, social, socio-economical, and family background of the parents. With considering that it would later help explained that emerging patterns of the children's data.

3.4. Data Collection

Three data collection were used in this study, namely the assessment test of phonological awareness, parents' questionnaire, and teacher's interview. The following subchapters present a brief explanation on the instruments and materials of the present study.

3.4.1. Instruments and Materials

3.4.1.1. The Assessment Test of Phonological Awareness

The assessment test of phonological awareness was conducted to measure students' awareness in the English phonology. The assessment test was in pictorial tasks adapted from Adams, Foorman, Lundberg, and Beeler (1998). It involved child's awareness to tap their metalinguistic knowledge based on their understanding of the pictures given. This study used English as the tested language to explore students' English phonological awareness. However, the language used in the instructions of each subtest was in Indonesian therefore the students could understand all the instructions well. In addition, the assessment test was matched to the teaching materials of English subject. It was hoped to minimize the gap of the unknown materials that were not yet studied in the

classroom. The following table presents the assessment test of phonological awareness.

Table 3.2.

The assessment test of phonological awareness (Adapted from Adams, Foorman, Lundberg, & Beeler, 1998 p.107-132)

No.	Instruments	Explanation	Score given
1.	Subtest of detecting rhymes	Students have to match two pictures that have the similar rhyme.	5
2.	Subtest of counting syllables	Students have to count and write down how many the syllables that each picture has.	5
3.	Subtest of matching initial sounds	Students have to match two pictures that have the same initial sound.	5
4.	Subtest of counting phonemes	Students have to count and write down how many the phonemes that each picture has.	5
5.	Subtest of comparing word lengths	Students have to draw a circle to the picture that has the most phonemes.	5
6.	Subtest of representing phonemes with letters	Students have to pronounce the name of each picture and write down the letters from the sounds produced.	5
Total scores			30

3.4.1.2. The Questionnaire

The questionnaire was given to the students' parents. The questionnaire was mostly in closed-ended questions which required the parents to put a check in one of the boxes in each statement. Open-ended questions were used when the questionnaire needed a further explanation that was beyond researcher's knowledge. The materials were adapted from Language, Social and Background Questionnaire (LSBQ) (cited in Luk & Bialystok, 2013) and some references from Mazka's (2014) manual parents' interview. The questionnaire consisted five main parts, namely: the information about the child, the number of people in the family,

parents' background, linguistic background, and lastly, family's background. The materials are elaborated below.

Table 3.3.
Manual parents' questionnaire

<p>The information about the child</p> <ul style="list-style-type: none"> a. Age of the child b. The order of the child at home
<p>The number of people in the family</p> <ul style="list-style-type: none"> a. the number of children in the family b. the number of people in the family
<p>Parents' background</p> <ul style="list-style-type: none"> a. The age of the parents b. The latest educational background of the parents c. The socioeconomic status of the parents d. The hometown of the parents
<p>Linguistic background</p> <ul style="list-style-type: none"> a. The child <ul style="list-style-type: none"> i. The age when he or she enters school ii. The languages that are learned at school b. Languages that are learned at home <ul style="list-style-type: none"> i. By the child ii. By the father iii. By the mother c. Languages that are spoken at home <ul style="list-style-type: none"> i. By the father ii. By the mother iii. By the child iv. By the sibling(s) d. Language exposure in the environment
<p>Family's background</p> <ul style="list-style-type: none"> a. Member(s) who has or have problem in <ul style="list-style-type: none"> i. Hearing ii. Writing

iii.	Speaking
b.	Information about child's
i.	Sight
ii.	Hearing
iii.	Writing
iv.	Speaking

3.4.1.3. The Interview

The interview was given to the teachers in open-ended questions because it was easier for the teachers to answer according to their opinion. The materials were adapted from Mazka's (2014) manual teacher's interview. Furthermore, the researcher inserted some materials that were relevant and necessary to elaborate for this study. The interview consisted of six main parts: the information about the teacher, teacher's knowledge about the students, teacher's response to language proficiency, teacher's response to phonological awareness, teacher's response to students who have obstacles in phonological awareness, teacher's response in English subject, teacher's response to students who have obstacles in English subject, and teacher's response about parents of the students. The materials are elaborated below.

Table 3.4.

Manual teacher's interview

The information about the teacher
a. Name
b. Age
c. Latest educational background
d. Working experience in the Elementary School
Teacher's knowledge about the students
a. The number of the students in the classroom
b. Children who have good proficiency
c. An image of children's language proficiency
Teacher's response to language proficiency

<ul style="list-style-type: none"> a. Activities to improve language proficiency in the classroom b. Amount of time given to the activities in language proficiency c. The aspects that are being improved in language proficiency
<p>Teacher's response to phonological awareness</p> <ul style="list-style-type: none"> a. The comprehension about phonological awareness b. Activities to improve phonological awareness c. The amount of time given to the activities in phonological awareness d. The aspects that are being improved in phonological awareness e. The stimulus in manipulating sounds
<p>Teacher's response to students who have obstacles in phonological awareness</p> <ul style="list-style-type: none"> a. Obstacles in phonological awareness b. Students' attention span in the classroom c. The quality of interaction of teacher to student and student to his or her friends d. The speech status of the student e. Active and inactive children
<p>Teacher's response in English subject</p> <ul style="list-style-type: none"> a. Activities in English subject b. The amount of time given in English subject c. The aspects that are being improved in English subject d. The stimulus in manipulating sounds in English subject
<p>Teacher's response to students who have obstacles in English subject</p> <ul style="list-style-type: none"> a. Obstacles in learning English subject b. Students' attention span in the classroom c. The quality of interaction of teacher to student and student to his or her friends d. Active and inactive children
<p>Teacher's response about parents of the students</p> <ul style="list-style-type: none"> a. The socioeconomic status of the parents b. Parents' attention to their child at school c. Parents' concern about the obstacles that their children have in language development

3.4.2. Research Procedure

The research procedures covered administrating the assessment test, distributing the questionnaire and conducting the interview. After all the steps were conducted, the collected data were analyzed and described for further explanation.

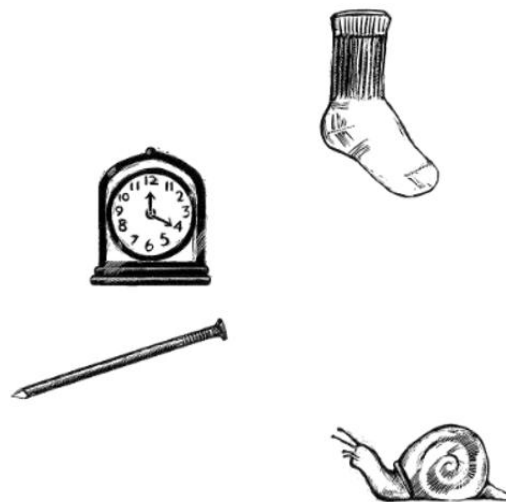
3.4.2.1. Administering the Assessment Test

The assessment test was administered to find out students' awareness in English phonology. The students were asked to answer the assessment test that was given from the researcher. The assessment test consisted of six subtests and each subtest had different procedures to be recorded. Nevertheless, each subtest had one to four picture(s) to be demonstrated to the students in the teacher demonstration page. The following instructions are the samples in the teacher demonstration page.

In the subtest of detecting rhymes, four pictures were explained and pronounced clearly to the students. The students were asked to follow and speak up the English word for a certain picture. Then, the students should choose two pictures that have similar rhyme, for instance *clock* and *sock*. Next, the students were asked to draw a line to match two pictures that have similar rhyme.

Figure 3.1.

Subtest of detecting rhymes (Adams, Foorman, Lundberg, & Beeler, 1998 p.111)

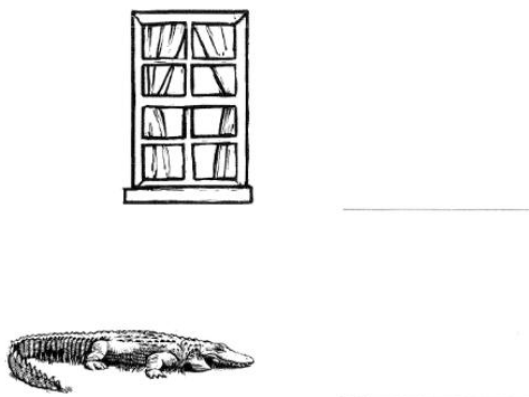


In the subtest of counting syllables, two pictures were showed and pronounced clearly to the students. The students were asked to follow and speak up the English word for a given picture. Then, the researcher would give a demonstration by clapping along with the students, as the students matched the

syllables in a given picture. The demonstration was repeated until they understood the instruction. After that, the students were ordered to make tally marks (| | |) to represent the number of clapping in the blank space.

Figure 3.2.

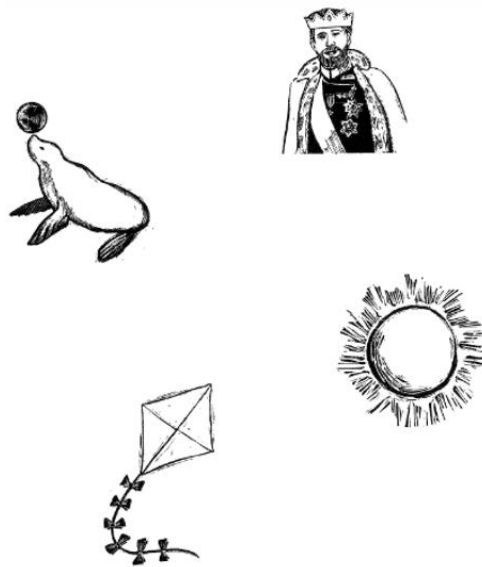
Subtest of counting syllables (Adams, Foorman, Lundberg, & Beeler, 1998 p.115)



In the subtest of matching initial sounds, four pictures were showed and pronounced clearly to the students. The students were asked to follow and speak up the English word for a given picture. Then, the students should choose two pictures that had the same initial sound, for instance *seal* and *sun*. The researcher would pronounce the initial sound repeatedly until the students understood the instruction. Next, the students were asked to draw a line to match two pictures that have the same initial sound.

Figure 3.3.

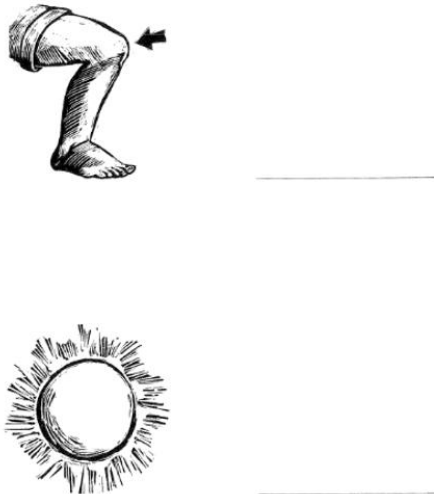
Subtest of matching initial sounds (Adams, Foorman, Lundberg, & Beeler, 1998 p.119)



In the subtest of counting phonemes, two pictures were showed and pronounced clearly to the students. The students were asked to follow and speak up the English word for a given picture. Then, the researcher would raise fingers one by one to represent every sound being produced. That demonstration was given repeatedly until they understood the instruction. After that, the students were asked to count how many fingers were pointing up. Then, the students had to make tally marks (| | |) in the blank space, representing raising fingers, to answer the test.

Figure 3.4.

Subtest of counting phonemes (Adams, Foorman, Lundberg, & Beeler, 1998
p.121)



In the subtest of comparing word lengths, four pictures were showed and pronounced clearly to the students. The students were asked to follow and speak up the English word for a certain picture. Then, the researcher would pronounce each sound being produced based on the two pictures, for instance picture *bow* has two sounds /b/ and /o/ and picture *boat* has three sounds /b/, /o/, and /t/. Next, the students and the researcher counted each picture and student should pick one of the pictures that had many sounds. Lastly, the students were asked to draw a circle around a picture that has many sounds from the two given pictures.

Figure 3.5.

Subtest of comparing word lengths (Adams, Foorman, Lundberg, & Beeler, 1998
p.125)



In the subtest of representing phonemes with letters, a picture was showed and pronounced clearly to the students. The students were asked to follow and speak up the English word for a given picture. Then, the researcher would raise fingers one by one to every sound being produced. After that, the students were asked to count how many fingers were pointing up and the researcher would convert each sound to its alphabet, for instance picture *bat* has /b/, /a/, and /t/ sounds and converted /b/ sound to letter *b*, /a/ sound to letter *a*, and /t/ sound to letter *t*. The students were asked to fill in the blank space with the alphabets of the given picture.

Figure 3.6.

Subtest of representing phonemes with letters (Adams, Foorman, Lundberg, & Beeler, 1998 p.129)



3.4.2.2. Distributing the Questionnaire

The questionnaire was distributed to the parents to find out the information about the child, students' social, linguistic, and family background. The questionnaire was given after the assessment test was conducted in the classroom. The questionnaire was written in Indonesian therefore the parents could understand each statement well. The questionnaire had five main parts of information and the parents were asked to put a check in one of the boxes according to their opinion of each statement.

3.4.2.3. Conducting the Interview

The interview was given to the teachers to discover the educational background of the students at the school. The interview was given after the assessment test was conducted in the classroom. The interview was in Indonesian therefore the teachers could understand each question well. The interview consisted of six main parts of information and the teachers were asked to answer the questions according to their opinion.

3.5 Data Analysis

The assessment test result was the main instrument to collect the quantitative data. The data were analyzed using SPSS 24 for Windows and presented in form of tables to give descriptive quantitative results on the score of each subtest.

Meanwhile, the questionnaire and interview were used to obtain the qualitative data. Creswell (2014) states that to interpret raw data, the data are analyzed in four steps: organizing and preparing the data analysis, coding the data, describing the data, and interpreting the data. Thus, the questionnaire and interview were presented in form of descriptive explanation to fulfill the qualitative data.

3.6 Concluding Remarks

This chapter has presented the research methodology of the present study. The contents of the methodology consist of research questions, research design, participants of the study, data collection, and data analysis. The next chapter, chapter 4, provides information about the findings and discussion of the present study.