Chapter IV
Finding and Discussion

The chapter of finding and discussion explains all findings of research particularly the sounds can be produced or cannot be produced by participants. The data are explained based on the place of articulation. This chapter also explains the factors which affect participants in producing sound.

4.1 Research Finding

The findings of this research are explained in this chapter. The findings cover the answers of research question they are consonants can be produced by pre-school aged children and factors can influence consonant production on pre-school aged children.

4.1.1 Consonants Can Be Produced by Pre-School Aged Children

The consonants which can be produced by participants are various. It can be seen from this following tables consist of two kinds. The first kind is initial position and the second kinds are final position.

Table 4.1.1
# Initial Position

| English Consonants | \( P \) | \( b \) | \( f \) | \( v \) | \( m \) | \( t \) | \( d \) | \( \emptyset \) | \( \delta \) | \( n \) | \( s \) | \( z \) | \( \dot{z} \) | \( t \) | \( \dot{f} \) | \( \ddot{z} \) | \( k \) | \( g \) | \( \eta \) | \( h \) | \( j \) | \( w \) | \( r \) | \( l \) |
|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| P3YO 1            | +   | -   | -   | +   | -   | -   | +   | -    | -    | +    | -   | -   | -    | -    | -    | +    | +    | -    |
| P3YO 2            | +   | +   | -   | +   | +   | -   | +   | -    | +    | -    | +   | +   | +    | -    | +    | +    | +    |
| P4YO 1            | +   | +   | -   | +   | +   | -   | +   | -    | -    | -    | -    | -    | +    | +    | +    | +    | +    |
| P4YO 2            | +   | +   | -   | +   | -   | -   | -    | +    | +    | -    | +    | -    | -    | +    | +    | +    |
| P5YO 1            | +   | +   | -   | +   | -   | -   | +    | +    | +    | +    | -    | +    | -    | +    | -    | -    | +    |

Table 1 explains that there are several sounds that can be produced by participants in the initial position.

Table 4.1.2
### Final Position

| English Consonants | P | b | f | v | m | t | d | Θ | ð | n | s | z | ðʒ | tʃ | ʃ | ʒ | k | ɡ | ɳ | h | j | w | r | l |
| P3YO 1            | + | – | – | + | + | – | – | – | – | + | – | – | + | + | + | – | – | + | + | – | – | – | – |
| P3YO 2            | + | + | – | + | + | – | – | – | – | + | + | + | + | – | + | – | – | + | + | – | – | – | – |
| P4YO 1            | + | + | – | + | – | – | – | – | – | + | + | + | – | + | – | + | + | – | + | + | – | – | – | – |
| P4YO 2            | – | – | – | + | + | – | – | – | – | + | + | + | – | + | – | + | + | – | + | + | – | – | – | – |
| P5YO 1            | + | + | – | + | + | – | – | – | – | + | + | + | + | – | – | + | + | + | + | + | – | – | – | – |

Table 1 explains that there are several sounds that can be produced by participants in the final position.

#### 4.1.1.1 Bilabial sounds

(1) /p/ - pen, /pen/, up, /ɻp/

Data (1) shows that the sound /p/ in the word *pen* in the initial position can be produced by all of the participants. Meanwhile, all of the participants also can produce /p/ in the final position that is in the word *up* (/ɻp/).

(2) /b/ - book, /bʊk/, cob, /kɒb/

Data (2) shows that the sound /b/ in *book* in the initial position can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five
years old (P5YO 1). Meanwhile, one participant cannot produce the sound /b/ in book and cob in the initial position and final position. He is three years old (P3YO 1). The sound /b/ in cob on the final position can be produced by three participants. They are P3YO 2, P4YO 1, and P5YO 1. However, there are two participants who cannot produce the sound /b/ in the final position in the word cob; they are P3YO 1 and P4YO 2.

(3) /m/- man, /mæn/, mom, /mam/

Data (3) shows that the sound /m/ in man on the initial position can be produced by all of participants. Meanwhile, the sound /m/ in mom in the final position can be produced also by all of the participants.

(4) /w/- win, /wIn/, /cow/, /kao/

Data (4) Shows that the sound /w/ in win and cow in the initial position and final position can be produced by five participants with the age of three years old (P3YO 1,2), four years old (P4YO 1,2), and five years old (P5YO 1).

4.1.1.2 Labiodental

(5) /f/- fat, /fæt/, leaf, /lif/

Data (5) Shows that the sound /f/ in fat in the initial position can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1). Meanwhile, one participant cannot produce the sound /f/ in fat and leaf in the initial and final position. He is three years old (P3YO 1). The sound /f/ in leaf in final position can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1)

(6) /v/- visit, /visit/, love, /lʌv/
Data (6) Shows that the sound /v/ in *visit* on the initial position cannot be produced by five participants with the age of three years old (P3YO 1, 2), four years old (P4YO 1, 2), and five years old (P5YO 1). The sound /v/ in *love* on the final position cannot be produced by all of participants.

4.1.1.3 Interdental

(7) /θ/ - think, /θɪŋk/, path, /pæθ/

Data (7) shows that the sound /θ/ in *think* on the initial position in the sound /θ/ in *path* in the final position can be produced by five participants with the age of three years old (P3YO 1, 2), four years old (P4YO 1, 2), and five years old (P5YO 1). Yet, the way the sound produced is not exactly as it should be. Instead of saying *think*, they tend to alter the sound to *ting* and the final position in *path* the participants tend to alter the sound to *pat*

(8) /ð/ - them, /ðəm/

Data (8) Shows that the sound /ð/ in *them* on the initial position can be produced by all of participants with the age of three years old (P3YO 1, 2), four years old (P4YO 1, 2) and five years old (P5YO 1). Yet, the way the sound produced is not exactly as it should be. Instead of saying *them*, they tend to alter the sound to *dem*.

4.1.1.4 Alveolar

(9) /t/ - tea, /ti:/, put, /pʊt/

Data (9) shows that the sound /t/ in *tea* in the initial position can be produced by five participants with the age of three years old (P3YO 1, 2), four years old (P4YO 1, 2) and five years old (P5YO 1). Moreover, the sound /t/ in *put* in the final position can be produced by all of participant.
(10) \(/d/\) - does, \(/d\lambda z/\), bad, \(/bæd/\)

Data (10) shows that the sound \(/d/\) in *does* in the initial position can be produced by three participants with the age of three years old (P3YO 2), four years old (P4YO 1), and five years old (P5YO 1). Meanwhile, there are two participants who cannot produce the sound \(/d/\) in *does* in initial position; they are P3YO 1 (three years old) and P4YO 2 (four years old).

(11) \(/s/\) - sad, \(/sæd/\), peace, \(/pi:s/\)

Data (11) shows that the sound \(/s/\) in *sad* in the initial position can be produced by four participants with the age of five years old (P5YO 1), four years old (P4YO 1, 2), and three years old (P3YO 1). Meanwhile, the sound \(/s/\) in the final position in the word *peace* can be produced by all of participants.

(12) \(/z/\) - zoo, \(/zu/\), buzz, \(/b\lambda z/\)

Data (12) shows that the sound \(/z/\) in *zoo* in the initial position and \(/z/\) in *buzz* in the final position can be produced by five participants with the age of three years old (P3YO 1, 2), four years old (P4YO 1, 2), and five years old (P5YO 1). Yet, the way the sound produced is not exactly as it should be. Instead of saying *zoo*, they tend to alter the sound to *joo* and the final position in *buzz* the participants tend to alter the sound to *buss*.

(13) \(/n/\) - now, \(/nəʊ/\), pen \(/pən/\)

Data (13) shows that the sound \(/n/\) in *now* in the initial position and \(/n/\) in *pen* in the final position can be produced by five participants with the age of three years old (P3YO 1, 2), four years old (P4YO 1, 2), and five years old (P5YO 1).

(14) \(/l/\) - lose, \(/luːzd/\), hotel, \(/həʊˈtel/\)
Data (14) shows that the sound /l/ in low in the initial position can be produced by three participants with the age of three years old (P3YO 2), four years old (P4YO 2), and five years old (P5YO 1). Meanwhile, there are two other participants cannot produce the sound /l/ in lose. The sound /l/ in hotel on final position can be produce only by one participant that is P5YO 1.

(15) /rl/ - rice, /rais/, car, /kɑːrl/

Data (15) shows that the sound /rl/ in rice in the initial position and /rl/ in car on the final position can be produced by all of participants. But they alter to /rl/ trill.

4.1.1.5 Alveolarpalatal

(16) /ʃ/ - shampoo, /ʃæmˈpu/, fish, /fiʃ/

Data (16) shows that the sound /ʃ/ in shampoo in the initial position can be produced by two participants with the age of three years old (P3YO 2), and five years old (P5YO 1). Meanwhile, there are two other participants cannot produce the sound /ʃ/ in shampoo and fish in the initial and final position. They are also three (P3YO 1) and four years old (P4YO 1,2). The sound /ʃ/ in fish in final position cannot be produced by all of participants.

(17) /ʒ/ - measure, /meʒə(r)/, garage, /gæraːʒ/

Data (17) shows that the sound /ʒ/ in measure on the initial position and /ʒ/ in garage on the final position can be produced by all of participants. Yet, the way the sound produced is not exactly as it should be. Instead of saying measure, they tend to alter the sound to meser and the final position in garage the participants tend to alter the sound to jereice

(18) /tʃ/ - cheek, /tʃiːk/, beach, /bɛːtʃ/
Data (18) shows that the sound /tʃ/ in *cheek* in initial position and in *beach* in the final position can be produced by all of participants. Yet, the way the sound produced is not exactly as it should be. Instead of saying *cheek*, they tend to alter the sound to *cik* and the final position in *beach* the participants tend to alter the sound to *bic*.

(19) /dʒ/-jet, /dʒet/, age, /eɪdʒ/

Data (19) shows that the sound /dʒ/ in *jet* in the initial position and /dʒ/ in *age* in final position can be produced by five participants with the age of three years old (P3YO 1,2), four years old (P4YO 1,2), and five years old (P5YO 1). Yet, the way the sound produced is not exactly as it should be. Instead of saying *jet*, they tend to alter the sound to *jet* and the final position in *age* the participants tend to alter the sound to *eij*.

### 4.1.1.6 Palatal

(20) /j/-you, /ju:/, /day/, /dei/

Data (20) shows that the sound /j/ in *you* in the initial and /j/ in *day* in final position can be produced by five participants with the age of three years old (P3YO 1,2), four years old (P4YO 1,2), and five years old (P5YO 1).

### 4.1.1.7 Velar

(21) /k/-/key/, /ki/, /cook/, /kʊk/

Data (21) shows that the sound /k/ in *key* in the initial position can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1). Meanwhile, there is one participant who cannot produce /k/ in *key*; he is P3YO 1. The sound /k/ in *cook* can be produce by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1).
Meanwhile, as in initial position, there is one participant who cannot produce /k/ in *cook*; he is P3YO 1.

(22) /g/ - go, /gəʊ/, pig, /pɪg/

Data (22) shows that the sound /g/ in *go* in the initial position can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1). Meanwhile, one participant cannot produce the sound /g/ in *going* and *log* in the initial and final position. He is three years old (P3YO 1). The sound /g/ in *pig* in the final position can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1).

(23) /song/, /sɒŋ/

Data (23) shows that the sound /ŋ/ in *song* on the final position can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1).

4.1.1.8 Glotal

(24) /h/ - home, /hoʊm/,

Data (24) shows that the sound /h/ in *home* in the initial can be produced by four participants with the age of three years old (P3YO 2), four years old (P4YO 1,2), and five years old (P5YO 1), and there is one participant who cannot produce /h/ in *home*; he is the P3YO 1.

4.2.2 Factors Influence Consonant Production on Pre-School Aged Children

According to the result of analysis, there are several factors which influence pre-school aged children’s ability in producing consonant sounds. The factors are explained as follow.
4.2.1 Internal Factors (Organ of speech, children behaviour)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Internal Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Organ Of Speech</td>
</tr>
<tr>
<td>P3YO 1</td>
<td>✓</td>
</tr>
<tr>
<td>P3YO 2</td>
<td>✓</td>
</tr>
<tr>
<td>P4YO 1</td>
<td></td>
</tr>
<tr>
<td>P4YO 2</td>
<td></td>
</tr>
<tr>
<td>P5YO 1</td>
<td></td>
</tr>
</tbody>
</table>

4.2.1.1 Organ of Speech

Organ of speech is one of important factors in producing language, especially in producing consonants. As illustrated at the previous explanation that a three years old participant (P3YO 1) has teeth problems which caused him difficult to produce consonant /b/, /f/, /v/, /θ/, /ð/, /tʃ/, /ʃ/, /ʒ/, /g/, /ŋ/, /r/, /l/ on the initial and final position. Neither the participant can be produce the sounds /p/, /m/, /w/, /t/, /n/, and /j/ very well. But it is different with participant (P3YO 2) which has the problems of the teeth which caused him difficult to produce consonant /v/, /θ/, /ð/, /z/, /r/, /tʃ/, /ŋ/ neither on the penultimate and ultimate position. However, this participant could well produce consonants /p/, /b/, /f/, /m/, /n/, /l/, /ŋ/, /r/, /l/, /θ/, /ð/, /z/, /r/, /tʃ/, /ŋ/, /s/, /ʃ/, /ʒ/, /k/, /g/, /ŋ/, /j/, /w/, /r/, /l/. Thus, organ of speech factor is very important in producing language; specifically in this research is English consonant.
As illustrated at the previous explanation that the participants (P4YO 1), (P4YO 2), and (P5YO 1), they do not have problems in the organs of speech.

4.2.1.2 Children Behavior

This research, found that the five participants from pre-school aged children, they do not have problems with children behavior.

4.2.2 External factors (Education, Family, environment)

<table>
<thead>
<tr>
<th>Participant</th>
<th>Education</th>
<th>Family</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3YO 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3YO 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4YO 1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P4YO 2</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P5YO 1</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4.2.2.1 Education

Education is also an important factor in producing consonants. Based on the table above the participant (P4YO 1) has a problem with education, because the participant didn’t have education or knowledge from his parents. It is because the participant parents’ are too busy with their own jobs, therefore the participant didn’t get knowledge from his parents, especially, from his mother. Mother, however, is the important figure for her children, especially in influencing the children’s language production. It because the first language that the children accept, it is from their mother.

4.2.2.2 Family
Family is also an important factor in producing consonants. Based on the table above the participant (P4YO 1) and (P4YO 2) they have a problem with family, because the participant family like their fathers and mothers are rarely home because of their work, this has resulted in children being I rarely get the attention of participants and the lack of knowledge that are taught by their parents. Both of the participant get less attention from their parents, they just play with their own self, this is also caused the participant cannot produce some words, because they rarely hear some words from adults, in this case are their parents. Based on this research, the researcher finds that the much words they hear, the much words they produce.

4.2.2.3 Environment

Environment is one of important factors in producing consonants, because from the environment the children can accustomed to hearing what is around them and imitate, so this maybe not be directly could make them able to produce consonant sounds. As illustrated at the previous explanation that a three years old participant (P3YO 1) he has a problem with

Moreover the participant (P4YO 1) has a problem with the internal environment which is mostly just graduated from senior high school. It can be concluded that most of the people of his environment are not well-educated. Besides, the external environment is far from the crowded. Moreover, they don’t have television, it is caused they cannot get any information.

In addition the participants (P4YO) he has a problem with his environment too. In his environment, he does not have friends. And also, his family is rarely been home. Therefore, he just plays with his own self. It is caused he cannot hear many words in everyday his life.

So environment also affects the language acquisition process and then goes into the production of consonant sounds.
In this research I have two participants (P3YO 2) and (P5YO 1) do not have problems with external factors such as Education, Family and Environment. Therefore, both of the participants can produce some consonants more than another participant who has problem with the environment.

4.2 Discussion

The discussion of this research is explained the answers of research question they are consonants can be produced by pre-school aged children and factors can influence consonant production on pre-school aged children.

Based on the data it can be seen that the P3YO 1 as the first participant can produce the consonant such as /p/, /m/, /w/, /l/, /n/, and /j/ in initial position, and for final position the P3YO 1 can produce /s/, /p/, /m/, /w/, /l/, /n/, and /j/. However, the P3YO 1 can only produce those consonants; it depends on some factor which influences the ability of P3YO 1 in producing consonant. For example, the main factor of the P3YO 1 cannot produce those consonants are; first, from internal factor, it is organ of speech which the participants have a problem with the teeth. The second one is from external factor which is from the environment.

Moreover, P3YO 2 has a problem with organ of speech. In this case the P3YO 2 only has the internal problem. It means that he does not have problem with external factor such as education, family, and environment. The organ of speech is only a problem which causing the P3YO 2 cannot produce the consonant /v/, /θ/, /ð/, /ʒ/, /tʃ/, and /ŋ/. It can be seen that all of consonants that the P3YO 2 cannot produce are the difficult consonant.

The next case is shown by P4YO 1 who cannot produce the consonants /v/, /θ/, /l/, /r/, /ʃ/, /ð/, /dʒ/, /tʃ/ and /ʒ/. In this case the problem which cause the P4YO 1 cannot produce the
consonants is not coming from the internal factors like organ of speech or children behavior, but it is caused by external factors such as education, family, and environment.

P4YO 2 can produce the consonants that cannot be produced are /v/, /ʒ/, /Ө/, /ð/, and /r/, /ŋ/. However, the P4YO 2 cannot produce those consonants, because the participant has a problem with external factors such as family and environment.

The last participant is P5YO 1 cannot produce /z/, /r/, /ʃ/, /tʃ/, /ʒ/, /Ө/, and /ð/. The participant P5YO 1 has not problem with internal and external, but for some consonants which cannot be produced by this participant, it is because most of those consonants are not Indonesian consonants. It is caused the participant rarely hear the sound of the consonants.

Based on the data it can be concluded that the main factor that caused the participants cannot produce the consonants is the external factors in this case the internal factors like organ of speech is not the main factor.

Based on the data, it can be concluded that internal and external factors influence the ability of participants to produce the consonants, but, the most important thing that influence the ability in producing consonants is they often hear the sound. This is similar with Dardjowidjojo 2008 and Steinberg 2001 who stated the various cases of sequence of phonological acquisition take place because of different factors of background such us family, environment, and also drill.

**Limitation of Study**

The limitation of the study is, this study actually only focus on consonants production of English vocabulary. Moreover, the participants of this study only five children with the aged of three, four, and five years old or the pre-school aged children. The participants are chose based on the differences of family background. The differences cover education, environment
and habitual activity. Furthermore the sound that the children should imitate, not produce by a native speaker. So there is a risk that the model in pronounce the sounds.