# Hushpuppy's Phonological Process in The Sixth-Year-Age-Growth in 'Beasts Of The Southern Wild' Movie

#### Alnia Umaroh

English Literature, Faculty of Languages and Arts, State University of Surabaya, alnia221@gmail.com

#### Widvastuti

English Department, Faculty of Languages and Arts, State University of Surabaya, Wid unesa@yahoo.com

#### **Abstract**

The study conveys phonological process in child in the sixth-year-age-growth which selected from the main character 'Hushpuppy' in 'Beasts of the Southern Wild' Movie. In that age child's speech sounds production is quite complex. Moreover, the target sounds are usually modified by omitting syllable or substituting one sound into another (Stamp, 1969). In proving or analysing this study needs a theory which is taken from Radford (2009). Radford's theory discusses about child phonological process. This study uses descriptive qualitative method from Miles and Huberman in Sugiono. The object of this study was the child's phonological process "Hushpuppy". The source of data was the child's utterances, and the data were the phonemes which were got from the child's phonetics inventories. The result of this study shows that in Hushpuppy's sixth-year-age-growth there are four types of phonological process which was acquired, they include consonant cluster, stopping, devoicing, and vowel reduction.

**Key words**: phonological process, phoneme, and phonetic acquisition.

#### Abstrak

Study ini melaporkan tentang proses fonologi pada anak usia enam tahun yang diambil dari karakter utama 'Hushpuppy' pada film 'Beasts of the Southern Wild'. Pada usia enam tahun tersebut pelafalan bunyi yang dihasilkan oleh si anak masih dirasa cukup komplek. Selain itu, sasaran bunyi tersebut biasanya memiliki perubahan melalui proses penghilangan suku kata atau melalui substitusi satu bunyi ke dalam bentuk bunyi yang lain (Stamp, 1969). Dalam menganalisis study ini perlu sebuah teori pendukung, dan teori tersebut diambil dari Radford (2009). Teori Radford membahas mengenai proses fonologi pada anak. Metode penelitian yang digunakan adalah metode deskriptif kualitatif dari Miles dan Huberman dalam Sugiono. Objek penelitian ini adalah proses fonologi dari karakter utama 'Hushpuppy'. Sumber data yang digunakan adalah ungkapan yang berupa kata atau frasa dari si 'Hushpuppy', sedangkan data penelitian berupa fonem yang dieproleh dari fonetik si karakter utama yaitu 'Hushpuppy'. Hasil dari studi ini menunjukkan bahwa di usia enam tahun Hushpuppy ada empat bentuk proses fonologi yang mampu di hasilkan, meliputi consonant cluster, stopping, devoicing, and vowel reduction.

Kata kunci : proses fonologi, fonem, dan fonetik.

ONIVERSITAS NEGERI SURAL

#### A. INTRODUCTION

In the case of phonology, Paula Fikkert (<a href="http://www.fikkert.com/Publications/1.acquiringphonology(earlierversion).pdf">http://www.fikkert.com/Publications/1.acquiringphonology(earlierversion).pdf</a>) retrieved on 1<sup>st</sup> January 2014, has also shown that there are three facts contributing to the child phonology which discusses about the pattern in child language production, as follows:

"First, children do not speak like adults. Second, children's speech often differs in a systematic fashion from that of adults. Third, child language

develops gradually towards the target language. It has proven difficult to explain these simple facts."

In addition, based on those facts above Alejandro (2012: 43) explicitly adds that in speaking English, children often replace some words structure to be shorter and easier in which difficult for adult in accepting the sounds of English. On the other hand this phenomenon can be said that the adult input about the sound of English is quite different to the output or the children's speech recognition.

Moreover, talking about children's phonology Poole (1934) in Dodd, *et al.* (2003: 622) assumed that the sounds such as /s, z/ can be found in the age of five and a

half year old, and those sounds will disappear on the late of that age and those such kind of sounds /s, z/ will not be presented in the age of seven and a half year old. Based on this presented phenomenon Wellman, *et al.* (1931) also added in Dodd, *et al.* (*ibid*, 2003: 622) that the age interval of five up to seven year old the children make the inconsistent production, and it means that the children's production is variation between correct and incorrect among those ages five up to seven year old.

In the same cases Glodsmith (1996: 539) claims that children's progress of acquiring their phonological will change toward their age stages, as follows:

"Children acquiring phonology do change over time, going through a recognizable set of stages. This progression is an indication, along with independence from the limiting effects of ability and environment and the presence of a critical period that shows that language acquisition is a biologically controlled behavior"

Besides, Glodsmith states that in acquiring phonology children will have a progress where their phonological process shows about the various English sounds, and those variation will be differentiated in each stages. This table below presents typical of phonological process by Bowen (1999: 3):

Table 1. Children's phonological process in different ages (in years; month) by Bowen (1999:3).

PHONOLOGIC		GONE BY
AL PROCESS	EXAMPLE	APPROXIMAT
ALTRUCESS		ELY
Context sensitive	pig = big	3;0
voicing	pig – big	3,0
Word-final de-	nig – niels	3;0
voicing	pig = pick	3,0
Final consonant	comb = coe	3;3
deletion	comb = coc	5,5
Fronting	car = tar	3;6
Tronting	ship = sip	3,0
	mine =	water a NI
Consonant	mime	<b>15</b> 13;9 <b>5</b> \
harmony	Kittycat –	101400
	tittytat	
	elephant = efant	
	potato = tato	
Weak syllable	television	4;0
deletion	=tevision	,-
	banana =	
	nana	
Cluster reduction	spoon =	
	poon	4:0
	train = chain	1,0
	clean = keen	
Gliding of liquids	run = one	5;0

	leg = weg leg = yeg	
Stopping /f/	fish = tish	3;0
Stopping /s/	soap = dope	3;0
Stopping /v/	very = berry	3;6
Stopping /z/	zoo = doo	3;6
Stopping 'sh'	shop = dop	4;6
Stopping 'j'	jump = dump	4;6
Stopping 'ch'	chair = tare	4;6
Stopping voiceless 'th'	thing = ting	5;0
Stopping voiced 'th'	them = dem	5;0

## B. REVIEW OF RELATED LITERATURE

# 1. Phonological Process in Acquisition

The assumption of phonological process according to Radford is a representation of such a rule in which one sound is changed into another sound under certain circumstances (2009: 83). Radford explained that in phonological process when children or adult say some words and those word have a basic which named as underlying form or it has been a common called underlying representation (UR). On the other hand, the way how children pronounce words is called as surface form or surface representation (SR) (ibid, 2009: 83-84). In addition the relation between the UR and the SR belongs to phonological rules, it is because the idea of UR is a reflection of the child phonology based on what they perceive from the adult's form of words. Conducting to this statement Radford has divided phonological process in seven points involve vowel reduction, consonants cluster, prevocalic voicing, devoicing, stopping, lateral harmony, and assimilation. Those points will be discussed further, as follows:

#### **▶** Vowel Reduction

Radford has given an analysis about the 'photograph' orthographic representation of [fóutəgra:f], 'photography' [fətpgrəfi], 'photographic' [foutəgráfik]. All those word has been transcribed in Standard British pronunciation. the sound represents the two sounds of /ou/ and /p/, while the 'ph' represent the sound /f/. Both of those sounds are closer to the UR (underlying representation) than the SR (surface representation). In the earlier form that in English language all vowels now pronounced as schwa /ə/ which represents as full vowels. So, the sounds /ou/, /p/, /a:/, or /a/ has replaced to be the sound of schwa /ə/, because it is part of the right procedure of phonological rule. Those cases above have been called as vowel reduction.

## Consonant Cluster

In the process of consonant cluster, Radford has taken an illustration of Amahl Smith's pronunciation. At his age of two year he completely made almost all consonant clusters become single consonant, e.g.

 $stamp \rightarrow [dap]$ ,  $drink \rightarrow [gik]$ ,  $socks \rightarrow [gok]$ ,  $scales \rightarrow [geil]$ ,  $crumb \rightarrow [gam]$ ,  $bring \rightarrow [bin]$ ,  $spoon \rightarrow [bu:n]$ . In this case, there were some words he produced that can be understood, e.g. camera  $\rightarrow$  [gæmdə], bandage  $\rightarrow$  [bændit], chequebook  $\rightarrow$  [gɛkbok] where it was recognizable as type of syllable that he could pronounce the form of consonant + vowel + consonant (CVC) (2009: 98-99).

# > Prevocalic Voicing

The term of prevocalic voicing has defined as voiceless sounds which immediately followed by a vowel that very frequently voiced in early child speech, but it is rarely found a prevocalic voicing in adult. The phenomenon of prevocalic voicing can be seen in Amahl Smith's pronunciation of word *sock* and *stamp*. In *sock* the voiceless /s/ had replaced to be voiced [g] become [gɔk], while in stamp the voiceless /st/ had replaced to be voiced [d] become [dap] (2009: 99).

### Devoicing

In Radford's point of view that, the phenomenon such as the replacement of final consonant in the word 'was' [wa:z] in which the final consonant of /z/ replaced to /s/ become [wa:s] is called devoicing (2009: 50). On the other hand, the word 'have' [hæv] where the initial of consonant /v/ has replaced to /f/ becomes [hæv]. What is more, it can be easily concluded that devoicing is the sound changes of final voiced consonant in a word.

# > Stopping

Radford stated that stopping is a fricative sounds like [f z  $\int$ ] or an affricate sounds like [f, d $_3$ ] are substituted become stop consonant such as [p d t] or [t d] (2009: 99). Moreover stopping process can be called as context-free, it is because the process happen in all context or environment (*ibid*, 2009: 99). The stopping process can be illustrated in *shoe* and *sip* by replacing an initial [t], and *Joe* and *zoo* by replacing an initial [d] (Hoff, 2007: 242).

## > Lateral Harmony

The definition of lateral harmony has been attempted in Amahl Smith's pronunciation. Radford has an assumption that the sounds of [r,j] could not be pronounced by smith if there was a sound like [l] in particular word. In other word this phenomenon can be seen in 'yoyo' which was pronounced as [joujou] by Smith, not to mention that the word of 'yellow' and 'lorry' were pronounced as [lɛlou] and [lɒlɪ]. In pronouncing those words there was no differentiation and both of them were pronounced as [lɒlɪ]. Based on what Smith presented of some words, it can be taken a perception that lateral harmony involves the alternation of /r/ and /j/ become /l/.

## > Assimilation

Radford said that in assimilation there are two type of assimilation and it includes vowel and consonant harmony. But in this case Radford claimed that harmony process is much affected vowel than consonant (2009: 99). The idea of assimilation itself is contributed with Amahl Smith's speech where a

velar sound [k g  $\eta$ ] at the end of a word tend to affect the sounds like [s t d  $\mathfrak{f}$ ] at the beginning of a word. Radford presented this case in the sound /d/ of *drink* replaced by [g] in the context of the following /k/. In that case, Radford was unconsciously stated that English does not have vowel harmony (2009: 99-100).

### C. METHOD

### 1. Research Design

This research uses qualitative descriptive research which concern about the process in an object which is analyzed by the researcher. Its definition related to Khotari's assumption (2004:5) that qualitative approach is contributes to the attitude, opinion, and behavior. Apart from that case descriptive method is concerned to the qualitative phenomenon.

## 2. Object of the Study

The object of this research is the child's phonological acquisition in the movie of 'Beasts of the Southern Wild'. The child who named 'Hushpuppy' was the main character in this movie and she was about six year old. It was chosen because in this year the children are able to acquire language. Not to mention that, it has to be known that in the age of six year children are able to acquire a lot of vocabularies up to 10.000.

### 3. Source of Data and Data

The source of the data of this research is Hushpuppy's utterances in "Beasts of the Southern Wild" movie. The phonetics inventories were taken for an observation. In this case, the data was got in a form of phoneme.

## 4. Method of Data Collection

In this research the researcher uses several method of collecting data. The observation is done to get an accurate data without manipulating the data to be analyzed. This observation of this study is taken from "Beasts of the Southern Wild" movie. The researcher takes some notes relating to the utterances about the main character's interaction between the parents and the environment to acquire English phonology. Moreover, in taking the data can be done trough some ways, first is watching the movie, secondly is making a list of Huspuppy's utterances, and then analyzing and classifying the utterances based on its type of phonological process. Here the example data reduction process:

**Table 2. The Example of Data Reduction Process** 

Original utterances	Hushpuppy's utterances	Adult's speech sound
<b>But</b> sometimes they be talking in codes.	[bʌ <u>t</u> ]	[b <sub>A</sub> ]

Based on the data above, the deletion of phoneme /t/ which reduced by Hushpuppy in the word But [bAt] is belong to consonant cluster.

#### D. DISCUSSION

In this part will be discussed further is about the phonological process which acquired by *Hushpuppy*. Some simplification of some particular words of *Hushpuppy* have been given in form of utterance. There are a lot of consonant and vowel which simplified including diphthong that found in Hushpuppy's utterances. Here are the list of Hushpuppy's utterances.

Table 3. Simplification of Hushpuppy's Utterances

Original utterances	Hushpuppy's utterances
1. <u>th</u> at	[ <b>d</b> ai]
2. breathe	[bri: <b>t</b> ]
3. kind	[kaɪ <b>n</b> ]
4. understand	[ʌndə·stæ <b>n</b> ]
5. made	[meɪ]
6. think	[tɪŋ]
7. stay	[sei]
8. tank	[tɪ <b>ŋ</b> ]
9. plug	[pln <b>k</b> ]
10. sometimes	[samtais]
11. breathing	[bi:t <b>n</b> ]
12. squirting	[skw3:t <b>n</b> ]
13. was	[wəs]
14. and	[ənd]
15. bracel <u>e</u> t	[breɪslɪt]
16. <b>hope</b>	[hop]
17. down	[d <b>a</b> n]
18. <b>old</b>	[o:]
19. <b>boil</b>	[b <b>a</b> :l]

The idea of phonological acquisition will be familiar with the term phonetic (consonants and vowel acquisition) and the process of child phonology. In the previous section, it has been discussed what consonants and vowels which *Hushpuppy* produce obviously. Those consonants and vowel sounds were found in 19 words only involving that, breathe, kind, understand, made, think, stay, tank, plug, sometimes, breathing, squirting, was, and, bracelet, hope, down, old, and the last is boil.

Based on those 19 words which pronounced by Hushpuppy seems that it is quite related to what Fikkert said that children make different speech sound from the adult is obviously right (p.5). (http://www.fikkert.com/Publications/1.acquiringphonology(earlierve).pdf) retrieve on 1<sup>st</sup> January 2014, this fact has been referred Fikkert's assumption, as follows:

"First, children do not speak like adults. Second, children's speech often differs in a systematic fashion from that of adults. Third, child language develops gradually towards the target language. It has proven difficult to explain these simple facts."

The facts which found in Hushpuppy's utterance in the previous section can be reflected in a form of phonological model that shows the differentiation between UR (Underlying Representation) and SR (Surface Representation) as in figure 1.

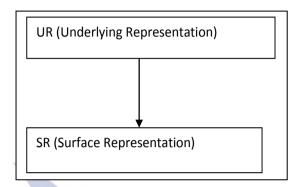


Figure 1. Child Phonological Model

In Hushpuppy's pronunciation such as 'kind' [kam], 'made' [mei], 'understand' [Ando-stæn], 'stay' [sei], 'tank' [tin], 'breathing' [bi:tn] and 'squirting' [skw3:tn] were parts of **consonant cluster**. Those consonants cluster of those words have been reduced into single consonant as in the boldface transcription. Starting the words 'kind' [kain] and 'understand' [andostæn] which the sequence of /nd/ was reduced into /n/, 'stay' [sei] which the sequence of /st/ was reduced into /s/, 'tank' [ $ti\eta$ ] which the sequence of /nk/ has reduced into / $\eta$ /, and 'breathing' [bi:tn] and 'squirting' [skwa:tn] which the sequence of /ng/ was reduced into /n/. In the same way for the words 'kind' [kaɪn], 'made' [meɪ], 'understand' [ando-stæn] are belongs to consonant cluster deletion. Moreover, this process is commonly called as [d] deletion. It was occurred where the variable deletion of word final [d].

Another simplification which occurred in Hushpuppy was **stopping** several consonant sounds in particular word such as 'that', 'breathe', and 'think'. In the adult phonologies those kinds of words have been transcribed as 'that'  $[\delta xt]$ , 'breathe' [bri: $\delta$ ], and 'think'  $[\theta nk]$ . On the other hand those fricative sounds  $[\delta, \theta]$  has been substituted into stop consonants by Hushpuppy.

On the pronunciation problem which happened in Hushpuppy was devoicing, this process has a definition as the devoicing of final voiced consonant to be final voiceless consonant and it was found in the word 'plug' and 'sometimes'. For this case, what Hushpuppy perceived in the word 'plug' is that she could not produce the voiced sound /g/, and it was replaced into voiceless sound /k/ as [plak]. Basically 'plug' is pronounced as [plag] which has the final voiced consonant /g/. While the word 'sometimes' is quite similar with the previous word In the adult's UR (underlying 'plug'. representation) the word 'sometimes' is considered to be pronounced as [samtaimz]. However, the pronunciation was obviously had no relation to the SR (surface

representation) (Hushpuppy). Hushpuppy has stored the adult form of final voiced consonant /z/ into final voiceless consonant /s/ as [sʌmtaɪs].

The last phonological process which occur in *Hushpuppy* is **vowel reduction**. Some words which the vowel is reduced include 'was', 'and', 'bracelet', 'hope', 'down', and 'boil'. Some vowel sounds in those words has replaced into another sounds become /ə/, /ɪ/, /o/, and /a/.

### ➤ Vowel Reduction to Schwa /ə/

The simple words that Hushpuppy could not pronounce correctly were 'was' and 'and'. If the word 'was' has a basic underlying form or UR as [wa:z], but Hushpuppy could not apply the word 'was' as the output representation. In the word 'was' [wa:z] there was an alternation in the SR (Hushpuppy). The vowel sound /a:/ was consciously turned into schwa vowel /ə /as [wəs]. Based on the underlying form in the word 'was' contains the stressed vowel /a:/. In this case the important distinction was in the surface representation of Hushpuppy, she lost the stressed vowel of /a:/. Moreover, she has made an alternation to be the schwa vowel /ə / as the unstressed vowel as [wəs].

The second alternation was also occurred in the 'and'. It has been known that the basic underlying form of 'and' is actually [ænd]. In this concern Hushpuppy could pronounce the vowel /æ/ in the word 'and'. She has recognized the vowel /æ/ to be another schwa vowel sound /ə/ as in the SR [ənd].

#### Vowel reduction to /i/

Hushpuppy also showed the alternation of schwa vowel sound /ə/ to be the vowel /ı/ in the word 'bracelet'. What was happening can be seen in the orthographic representation. If the word 'bracelet' has a basic or underlying form as [breislət], and in contrast Hushpuppy's form was far quite far from the UR than the SR. In addition, the phonetic realization of 'bracelet' [breislət] in which in the second syllable is contain unstressed vowel /ə/ has been perceived as /ɪ/ vowel sound. It can be said that the replacement of central unrounded vowel to be front unrounded vowel.

## ➤ Vowel Reduction to /o/

In this finding Hushpuppy consciously pronounced 'hope' as [hop] while in the basic for or underlying representation it transcribes as [hoop]. In the word 'hope' there are two vowel sounds /v/ and /o/. But between these two vowel sounds /v/ and /o/ Hushpuppy just recognizes the vowel sound /o/. In the same way she has presented the stressed vowel /o/ to be [hop] as the differentiation of unstressed vowel sound /v/ as the basic representation of American English. It can be concluded that the comparison between the UR and the SR was totally different, and

it showed that there were different rules in Hushpuppy that applied.

#### ➤ Vowel Reduction to /a/

One of the crucial vowel reductions was also occurred in *Hushpuppy* was in the word 'down' and 'boil'. These two words actually have different underlying representation. *Hushpuppy* tended to use the vowel /a/ in the word 'down' than the vowel /o/. This case was actually quite complex. It was expected that the SR could be closer to the UR, but it seemed *Hushpuppy* got some difficulties to make high and back rounded vowel /o/ in the word 'down'. Furthermore, back rounded vowel /o/ is stressed vowel in the UR, but to perceive the stressed vowel was quite complex for Hushpuppy and as a result she produce the unstressed vowel /a/ in 'down' [dan]. Even, it has been given the figure of the right UR.

Another alternation of long vowel /a:/ was also found in the word 'boil'. In 'boil' [bɔɪl] shows that the /ɔ/ represents as the single sound segment which has been alternate by Hushpuppy. In this case the barrier of phonetic realization of the preceding vowel /ɔ/ 'boil' [bɔɪl has been replaced to be the long vowel /a:/. Actually the vowel of /ɔ/ in the UR is the unstressed vowel. Though there was no alternation of producing the stressed vowel in Hushpuppy, but the complex situation was she recognized the back rounded vowel /ɔ/ as central unrounded vowel /a:/ in [bɑ:1].

## Vowel Reduction to /o:/

The last vowel reduction process was found in the word 'old'. The certain rule was applied from the UR and the SR 'old'. the word 'old' has the vowel sound /ou/, and this vowel sound has alternated into single vowel sound /o:/. The UR of [ould] was actually quite closer to the SR if it is seen to the vowel sound to be [o:]. But for the phonetic realization of losing the single vowel /v/ was a reflection that Hushpuppy has not been able to acquire the right UR. It was also found that final consonant cluster of /ld/ has omitted. The omission of consonant sound /ld/was not the main point in this case, but the Hushpuppy's surface representation was the main aspect and it was quite difficult to understand. In addition, in the case of surface representation she has made the unstressed vowel /o:/ as her understanding of acquiring the word 'old' as the output. So, it can be concluded that the full vowel of /o:/ has the similar meaning with the word 'old' in pronunciation.

In *Hushpuppy's* sixth-year-age-growth, she acquired four types of phonological process including consonant cluster, devoicing, stopping, and vowel reduction. In the case of vowels reduction there have been several vowel sounds which have been reduced to be another kind of vowel sound.

Based on the forth phonological process which occurred in Hushpuppy can be said that the underlying

forms (UR) which reflect as the input were not equivalent to the Hushpuppy's surface representation (SR), this SR was reflect to the input which was unable of figuring out the right rules that refer to the adult forms.

Moreover, in Radford's assumption (2009:98) that in phonological acquisition has to be related to the adult and the child. The adult form reflects as the underlying form (UR) that will help the children to perceive their surface representation. In the case of Hushpuppy the The adult speech sound has been the reflection of UR which stores the right figure for the SR. On the other, what have been some facts that found in Hushpuppy the relation between the Underlying Representation (UR) and the Surface Representation (SR) was not equivalent. It means that the formulation of the given input were less identical to Hushpuppy's output, it is because she could not be able to perceive the right rule in constructing her surface representation.

### E. CONCLUSION

The result of this study has been attempted to the aspect of phonological process which occurred in *Hushpuppy* showed that the relation between the Underlying Representation (UR) and the Surface Representation (SR) were not equivalent each other. This case has been proved by several simplifications of consonant, vowel, and diphthong to be another sounds segment. Though, the right UR of the adult has been given to Hushpuppy as the output, but Hushpuppy had not been able to formulate the right rule in her phonological development.

in the sixth-year-age-growth, Hushpuppy mastered four types of phonological processes, they include consonant cluster which found in the following words such as 'kind' [kam], 'made' [mer], 'understand' [anda-stæn], 'stay' [ser], 'tank' [trn], 'breathing' [bi:tn] and 'squirting' [skw3-:tn]. The consonant cluster like 'nd/, /n/, /st/, /nk/, /n/, and /ng/ have been simplified into single consonant as in the boldface transcription.

The second process is stopping which found in sevaral words such as 'that', 'breathe', and 'think'. In these words some fricative sounds  $[\eth,\theta]$  has been substituted into stop consonants by Hushpuppy.

The third process of simplification is devoicing which found in the words 'plug' and 'sometimes'. The devoicing of final voiced consonant in those words has simplified into final voiceless consonant like /z/ become /s/ in the word 'sometimes' and consonant /g/ become /k/ in the word 'plug'.

The last is vowel reduction which found in several words like 'was', 'and', 'bracelet', 'hope', 'down', and 'boil'. Some vowel sounds in boldface have replaced into another sounds become /ə/, /ı/, /o/, and /a/.

This study has discussed about phonological process in the sixth-year-age-growth child. The limitation in phonological process is obviously can be more expanded by another researcher. It is because the area of phonological process is quite large to be analyzed, such as through suprasegmental phonology, syllable structure, word stress, and even trough Optimality Theory (OT).

Furthermore, the suggested data that is taken is not only limited from the movie, but also the data can be taken in the field such as kindergarten and English courses directly. So, based on direct observation in the field the researcher can know the subject research in detail trough her or his characteristics.

#### F. REFERENCES

A.Goldsmith, John. 1996. *The Handbook of Phoonological Theory*. Blackwell Reference Online.

Bowen, Caroline. 1999. "Phonological Processes in Typical Speech Development".

Brice, Cynthia B. Leung and Alejandro E. (2012): 19. "An Analysis of Phonological Processes Involved in Spoken English of Hong Kong Primary Pre-Service Teachers." *Language Testing in Asia* two.two.

Demetriou, Andreas, Michael Shayer, Anastasia Efklides. 2005. *Neo-Piagetian Theories of Cognitive Development*. London and New York: Routledge.

Dodd, Barbara, Alison Holm, Zhu Hua, Sharon Crosbie. (2003). "Phonological Development: A Normative Study of British English-Speaking Children." *Clinical Linguistics & Phonetics*.

Fikkert, Paula (2000). 'Acquisition of Phonology'. In L. Cheng & R. Sybesma (Eds.),

The First Glot International State-of-the-Article Book. The Latest in Linguistics. Studies in Generative Grammar 48. Berlin/New York: Mouton de Gruyter. 221–250.

Fromkin, Victoria, Robert Rodman, Nina Hyams. 2011. *An Introduction to Lang*. Canada: Wadsworth, Cengage Learning.

Herschensohn, Julia. 2007. *Language Development and Age*. United States of America: Cambridge University Press,.

Hoff, Erika and Marylin Shatz. 2007. *Blackwell Handbook of Language Development*. UK: Blackwell Publishing Ltd.

Joseph, Pamela Thomas. (2007): 13-26. "Phonological Acquisition among Malaysian English Child Speakers of Indian Descent." *Sains Kesihatan Malaysia*.

Khotari, C.R. 2004. Research Methodology Method & Techniques. Second revised ed: New Age International.

Labov, William, Sharon Ash, Charles Boberg. 2006. *The Atlas of North American English Phonetics, Phonology and Sound Change*. New York: Walter de Gruyter.

Lancaster, Gwen. 2008. Developing Speech and Language Skills. London and New York: Routledge.

Odden, David. *Introducing Phonology*. United States of America: Cambridge University Press, New York, 2005. Print.

Radford, Andrew. Martin Atkinson, David Britain, Harald Clahsen, Andrew Spencer. 2009. *Linguistics an Introduction*. United States of America: Cambridge University Press.

Smith, Neil. *Acquiring Phonology*. 2009. United States of America: Cambridge University Press.

Sugiono. (2010). "Methode Penelitian Pendidikan (Pendekatan Kuantitative, Kualitative Dan R&D)."

