PHONOLOGICAL SYSTEM OF MUARASIPONGI CREOLE: IDENTIFICATION AND DISTRIBUTION OF PHONEME

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Abstract

As a result of language contact, creole is a language phenomena which must be investigated by linguists. This research investigated the phonological system of Muarasipongi creole. The aim of the research was to identify the phonemes and determine the distribution of phonemes. Descriptive-qualitative method was used in conducting the research. Based on the findings, there are 37 phonemes found in Muarasipongi Creole. The phonemes are /p/, /b/, /t/, /d/, /ʧ/, /ʤ/, /k/, /g/, /ʔ/, /h/, /s/, /ʃ/, /m/, /n/, /ŋ/, /ɲ/, /r/, /l/, /w/, /j/. /a/, /i/, /u/, /e/, /o/, /æ/, /ai/, /ua/, /uo/, /ou/, /oi/, /au/, /ei/, /iu/, /ui/, /ae/, and /ia/. In term of phoneme distribution, Muarasipongi creole have variation. The consonants have variation in distribution. Moreover, vowels are complete distribution except phoneme /æ/. Furhermore, most of diphthongs do not complete distribution except phoneme /ai/.

Key words: consonant, vowel, diphtong, Muarasipongi, creole

A. INTRODUCTION

Language is a basic need for human beings to communicate. Language is used to create a meaningful communication among human beings. The original form of human language is spoken language. It establishes a kind of interaction between the speaker and the hearer.

In Mandailing Natal regency, in one regency of North Sumatera Province, there is sub district called Muarasipongi which has a uniqueness of language. The people who live in Muarasipongi actually are Mandailingnese since in their last name marked by the family name (clan). Even though they are Mandailingnese, they do not speak Mandailing language in their daily activities. They speak their own language which is called as Muarasipongi language. Based on the research done by Harahap (2011), the sociolinguistics status of language spoken in Muarasipongi is categorized to creole. Mostly the lexical is the combination and

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modification between local language and Minangkabau language, since Muarasipongi directly bordered with Minangkabau area.

It is important to explore the creole as one of language phenomena by investigating it thorugh phonology. According to Refnaldi (2008:3) phonology is the study of how sounds produced by people in particular language, organized and arranged into pattern systems. Moreover, Lass (1991:1) states that phonology is a sub of linguistics which concerns to the sounds of a language that studies about functions, attitudes, and sounds organizations as the elements of linguistics. There two parts of phonology. They are phonetics and phonemics. Refnaldy (2008:116) states that phonetics is the specific study of how speech sounds are produced, their physical properties, and how they are interpreted. Demolin (2005:95) states that phonetics describes how the speech sound are created, received, and transmitted in language. Furthermore, Katamba (1989:60) says that phonetics is the study of the production of speech sound by speakers, their perception by the hearers and their acoustics properties.

This study identified the phonemes and their distribution of Muarasipongi Creole. Hence, the phonemes discussed deeply in the study. Idsardi (2003), states that phonemes are the phonetic alphabet of the mind. Moreover, Jufrizal (1999:49) says that phoneme is the smallest meaningful unit of sounds. According to Bloomfield (1995:126), phonemes are parted into two categories, those are primary phoneme which is known as segmental phoneme and secondary phoneme which is known as supra-segmental phoneme. Trask (2007:215) states that segmental phoneme is an aspect of pronunciation whose description requires a single consonant and vowel.

The sounds that are produced without any obstruction in the vocal tract when the air flows from the lungs categorized into vowel sounds. Refnaldi (2008:63) states that the quality of vowel is determined by some of vocal tract, also the shape of vocal tract and vowel quality can be changed by the speakers into several ways. Jufrizal (1999:39) says that the vowel is sound that is produced with no interruption of the air passage through the oral cavity, as the result the sounds become voiced continuous sounds.

Fromkin et al (2007: 195) explains that the consonant sounds is made because of there is an obstruction in the vocal tract when the air flows from the lungs. For examples are sound [p] is produced because of an obstruction with the lips, sound [t] is produced because of an obstruction with the front of the tongue, etc. Yule (2006:38) states that vowels are produced with a relatively free flow of air. It means the vowels are typically voiced.

Diphthong is known as a gliding vowel which is combination of two adjacent vowel sounds within the same syllable. According to Dardjowidjojo (2009:33), a diphthong is the sound of combination of two different vowels in the same syllable, and then the stronger stress falls on the first vowel. Crystal (2001:237) states that dipthong are vowels where two qualities can be perceived.

Crane et al(1981:72) discover how to find and identify a phoneme in language. The concept of minimal pairs to identify a phoneme in language had invented. A minimal pairs is any two words that contain the same number of segments, but differ in meaning, and exhibit only one phonetic difference. Futhermore, Katamba (1989:22) says that when two words are identical in all aspect, except for one segment they are reffered to as a minimal pair.

Basically, the distribution of phoneme can be found in the initial position, middle position, and final position. However, not all phonemes can be found in the initial, middle, and final position. Linguists have formulated the concepts to identify a phoneme.

The best step to identify phoneme is using the concept of minimal pair. Two words which differ in only one sound in a given position. For example, the words *tin* [tin] and *sin* [sin] which have different meaning. These two words are categorized into minimal pair. The difference of phoneme /t/ and phoneme /s/ differ the meaning of the two words.

Allophones are the variant of phonetic realizations of one and the same phoneme. Allophonic variants are the variants that are conditioned by the environments in which they occur. They occur in mutually exclusive environments, i.e., they never overlap, they are in complementary distribution. For instance, in English [kʰ] is allophone of phoneme /k/ and they are not different phonemes, such as in word cool [kʰuːl] and ski [ski].

If there is no contextual influence, then look for the free variation. Two phonemes which may appear in the same context without causing a change in meaning. For example, phonemes /p/, /t/, /k/ are aspirated phoneme when they appear in the initial position in English language.

A creole is a natural language that is developed from a mixture of different languages. According to Robin (2010) a creole language is different from pidgin language for the majority of its speaker. According to Wardaugh (1986:58), a creole is normal language in just about every sense and has native speakers. Schendl (2001), explains that the characteristics of language that has been in creolization process can be seen as follow: first, Morphological and syntax become more complex, the vocabulary increases, and the pronunciation becomes more stable.

Muarasipongi is a sub district located in Mandailing Natal Regency, North Sumatera. Nasution (2010) claims that in Mandailing Natal can be found a unique local language that is Muarasipongi language. In addition, why the language in Muarasipongi is unique due to the fact that there are many similarities consist of vocabulary or lexical to Minagkabaunese whereas Muarasipongi does not belong to Minangkabau region.

Based on the explanation, theories and statement above, the researcher conducted the research on Muarasipongi Creole seen from phonological point of view. The research investigated the phonemes and their distribution of Muarasipongi creole.

B. RESEARCH METHOD

The research was designed in descriptive method and using qulaitative approach. Descriptive method is the process of describing the data grounded on data which are gathered from the informants, participants, etc. There are three stages to analyze the qualitative research model. They are data reduction, displaying data, verification and conclusion.

The data of the research were the words pronounced by the native speakers of Muarasipongi creole which consist of consonants, diphtongs, and vowels. Moreover, the source of data were seven native speakers of Muarasipongi Creole that act as the informants of the research. Those people were from different areas in Muarasipongi.

The instruments that were used in conducting the research are the swadesh list, writing equipments (pen and notebook), and tape recorder. The swadesh list was used as the guidance in order to make the words of Muarasipongi language be pronounced by the native speaker of Muarasipongi. There also some additional list of words selected by the researcher in order to have more accurate data. The writing equipments were used to make some notes from the utterances which was important from the informants. The tape recorder was used in order to record the interview among researcher and informants. In addition, interview guidelines was also used as assistance during the interview went on.

When collecting the data, the researcher made the informants speak the words based on the Swadesh list and number of additional words selected by the researcher without trying to make the informants to be rigid in answering the questions. The researcher used the elicitation technique. The technique was used in order to assist the researcher to collect the data during the interview quickly. During the interview went on, the tape recorder was used to have the data recording between researcher and informants. The data of recordings were saved in the memory card. The researcher used a note-taking technique as well. This is useful for the researcher to write some additional information.

C. RESULT AND DISCUSSION

1. Research Finding

Based on the data analysis, there are three are 37 phonemes that are found in Muarasipongi Creole. There are 20 consonant phonemes, 6 vowel phonemes and 11 diphthong phonemes. The consonant phonemes are /p/, /b/, /t/, /d/, /tʃ/, /dʒ/, /k/, /g/, /ʔ/, /h/, /s/, /ʃ/, /m/, /n/, /ŋ/, /ɲ/, /r/, /l/, /w/, and /j/. While the vowel phonemes are /a/, /i/, /u/, /e/, /o/, and /æ/. At last, the diphthong phonemes in Muarasipongi Creole are /ai/, /ua/, /uo/, /ou/, /oi/, /au/, /ei/, /iu/, /ui/, /ae/, and /ia/.

In the distribution part, Muarasipongi creole also has variations. There are 9 consonant sounds that have a complete distribution. Those are /p/, /t/, /d/, /g/, /s/, /n/, l/, /m/, and /ŋ/. The other consonant sounds are incomplete distribution. Phonemes /b/, /tʃ/, /dʒ/, /k/, /ʃ/, /ɲ/ and /r/ are only appeared in initial and middle position. Phonemes /w/ and /j/ are only found in the middle position. Phonemes /h/ can be found in the middle and final position. Phonemes /ʔ/ only appears in the final position. In vowel sounds distribution, Muarasipongi creole has a complete distribution for all vowel sounds except phoneme /æ/. If the phonemes /æ/ only

occurs in middle and final position, so the other vowel sounds are complete distributed. The phonemes /a/, /i/, /u/, /e/, /o/ occur in initial, middle and final position. In diphthong sounds also have variant even though none of diphthong sounds has complete distribution . The diphthongs /ai/ and /oi/ are found in initial and middle position. Diphthongs /ua/, /uo/, /ou/, /ei/, /iu/ are found in the middle and final position. The diphthong /au/, /ae/, and /ia/ are only appeared in the middle position. lastly, the diphthong /ui/ is only found in the final position.

2. Discussion

The table below presents the consonant sounds of Muarasipongi Creole based on place and manner of articulation.

Table 1. Consonant sounds of Muarasipongi Creole based on place and manner of articulation

Place of articulation / Manner of articulation		Bilabial	Alveolar	Post Alveolar	Palatal	Velar	Glottal
Stop	Voiceless	p	t		ʧ	k	ʔ
	Voiced	b	d		ʤ	g	
Fricative	Voiceless		s	ʃ			h
Nasal	Voiced	m	n		ɲ	ŋ	
Lateral	Voiced		l				
Trill	Voiced		r				
Glide	Voiced	w			j		

Based on place of articulation, consonant sounds in Muarasipongi Creole are parted into bilabial sounds such as /p/, /b/, /m/ and /w/. There are alveolar sounds such as /t/, /d/, /s/, /n/, /l/ and /r/, palatal sound such as /ʧ/, /ʤ/ and /ɲ/ and /j/, velar sounds such as /k/, /g/, and /ŋ/, glottal sounds such /ʔ/ and /h/, and postalveolar sound such as /ʃ/. Based on manner of articulation, the consonant sounds of Muarasipongi creole are parted into stop sounds such as /p/, /b/, /t/, /d/, /ʧ/, /ʤ/, /k/, /g/ and /ʔ/, fricative sounds such as /s/, /h/ and /ʃ/, nasal sounds such as /m/, /n/, /ɲ/ and /ŋ/, lateral sound such as /l/, trill sound such as /r/, and glide sounds such as /w/, and /j/.

In consonant sounds distribution, Muarasipongi creole also has variant. Based on the research findings, there are 9 consonant phonemes which have a complete distribution. The other consonant phonemes are incomplete distribution. The table below shows the distribution of consonants sounds in Muarasipongi Creole.

Table 3. Distribution of consonants in Muarasipongi Creole

Phonemes	Position in Word		
	Initial	**Middle**	**Final**
/p/	*panjag* [pandʒg] 'long'	*tapak* [tapa?] 'foot'	*tajop* [tadʒop] 'sharp'
/b/	*binatak* [binata?] 'animal'	*kobik* [kobi?] 'tie'	-
/t/	*tulak* [tulak] 'bone'	*utak* [uta?] 'brain'	-
/d/	*dayuk* [daju?] 'paddle'	*tidu* [tidu] 'Sleep'	*musojid* [musodʒid] 'mosque'
/ʧ/	*cincit* [ʧinʧit] 'ring'	*docino* [doʧino] 'chili'	-
/dʒ/	*jantug* [dʒantug] 'heart'	*anjik* [andʒi?] 'dog'	-
/k/	*kecik* [keci?] 'small'	*bingkatak* [bingkatak] 'frog'	-
/g/	*gudag* [gudag] 'warehouse'	*dogu* [dogu] 'chin'	*panjag* [panjag] 'long'
/?/	-	-	*idik* [idi?] 'live'
/s/	*sarug* [sarug] 'sarong'	*asok* [aso?] 'smog'	*apus* [apus] 'earase'
/h/	-	*bohok* [boho?] 'lie'	*buluh* [buluh] 'bamboo'
/m/	*moto* [moto] 'eyes'	*ambit* [ambit] 'carry'	*minum* [minum] 'drink'
/n/	*nenang* [nenaŋ] 'swim'	*bintak* [binta?] 'star'	*olamen* [olamen] 'yard'
/ɲ/	*nyepui* [ɲepui] 'wipe'	*banyak* [baɲa?] 'many'	-
/ŋ/	*ngerek* [ŋere?] 'cut'	*angin* [aŋin] 'wind'	*nenang* [nenaŋ] 'swim'
/r/	*Rotet* [rotet] 'rattan'	*berek* [bere?] 'rice'	-
/l/	*ladak* [lada?] 'farm'	*balop* [balop] 'baloon'	*kidal* [kidal] 'left'
/w/	-	*leweh* [leweh] 'wide'	-
/ʃ/	*suo* [ʃuo] 'sir'	*oso* [oʃo] 'know'	-
/j/	-	*ayop* [ajop] 'chicken'	-

Furthermore, there are 6 vowel sounds are found in Muarasipongi Creole. The phonemes are /a/, /i/, /u/, /e/, /o/, and /æ/. Djarjowidjojo (2009:1070 states that there four parameters to classify the vowels. The are height of the tongue, position of tongue, rounded and unrounded of lips and the tense and lax state of the muscles. In addition, the parameter tense and lax state of the muscles are not used in calssifying the vowel due to its lack of influence to the phonemes. The tense vowel does not influence the meaning of the word. The table below presents the calssification of vowels found in Muarasipongi Creole.

Table 3. Vowel classification of Muarasipongi Creole

	Front	**Central**	**Back**
High	i	-	u
Mid	e	-	o
Low	æ	a	-

All vowel sounds have complete distribution except the phoneme /æ/ which only appears in final position. The table belowe shows the distribution of vowel sounds of Muarasipongi Creole.

Table 4. Distribution of Vowel sounds in Muarasipongi Creole

Phonemes	**Position in Word**		
	Initial	**Middle**	**Final**
/a/	*ayop* [ajop] 'chicken'	*calo* [ʧalo 'see'	*denga* [deŋa] 'hear'
/i/	*itop* [itop] 'black'	*docino* [doʧino] 'chili'	*bobi* [bobi] 'pig'
/u/	usag [usag] 'obsolote'	*sarug* [sarug 'sarong'	*tidu* [tidu] 'sleep'
/e/	*empek* [empeʔ] 'four'	*cubedok* [ʧubedoʔ] 'jackfruit'	*lahe* [lahe] 'bear'
/o/	obu [obu] 'ash'	*binonun* [binonun] 'rainbow'	*bapo* [bapo] 'how'
/æ/	-	*Garop* [gærop] 'salt'	le [læ] 'and'

Beside consonant and vowel sound, the diphthong sounds are also encountered in Muarasipongi Creole. There are eleven diphthong phonemes found in Muarasipongi Creole, those are /ai/, /ua/, /uo/, /ou/, /oi/, /au/, /ei/, /iu/, /ui/, /ae/, and /ia/. Mostly, all of the diphthong sounds do not have a complete distribution. Only phoneme /ai/ has complete distribution. The diphthongs /ai/ and /oi/ are found in initial and middle position. Then, the diphthongs /ua/, /uo/, /ou/, /ei/, /iu/ are found in the middle and final position. The diphthong /au/, /ae/, and /ia/ are only appeared in the middle position. lastly, the diphthong /ui/ is only found in the final position. The table below presents the diphthongs and their distributions of Muarasipongi Creole.

Table 5. Diphthong sounds and their distribution in Muarasipongi Creole

Phoneme	Position in Word		
	Initial	**Middle**	**Final**
/ai/	*ai* [ai] 'water'	*jaik* [ʤai?] 'sew'	*balai* [balai] 'market'
/ua/	-	*buak* [mayli] 'Flow'	*ijau* [ijau] 'green'
/uo/	-	*Buoyo* [buoyo] 'crocodile'	-
/ou/	-	*doud* [doud] 'leave'	*Danou* [danou] 'lake'
/oi/	*oih* [oih]	*goik* [goi?] 'scracth'	-
/au/	-	*lauk* [lau?] 'fish'	-
/ei/	-	*leitu* [leitu] 'long time ago'	*pei* [pei] 'go'
/iu/	-	*poriuk* [poriu?] 'pot'	*moliu* [moliu] 'spat'
/ui/	-	*banyak* [baɲa?] 'many'	*nyepui* [ɲepui]
/ae/	-	*paek* [pae?] 'chisel'	-
/ia/	-	*siak* [sia?] 'day'	-

D. CONCLUSION AND SUGGESTIONS

Based on the result of the research, there are 37 phonemes of Muarasipongi Creole. The phonemes are /p/, /b/, /t/, /d/, /ʧ/, /ʤ/, /k/, /g/, /?/, /h/, /s/, /ʃ/, /m/, /n/, /ŋ/, /ɲ/, /r/, /l/, /w/, /j/. /a/, /i/, /u/, /e/, /o/, /æ/, /ai/, /ua/, /uo/, /ou/, /oi/, /au/, /ei/, /iu/, /ui/, /ae/, and /ia/.

Based on the number of phonemes it is clearly shown that Muarasipongi Creole has differences with Minangkabaunese as its based language in term of lexicon. In consonants sound, there is phoneme /ʃ/ which appear as in word *oso* [oʃo] 'know'. The number of diphthongs become the clear distinction whereby Muarasipongi as much 11 diphthongs and Minangkabaunese as much 5 diphthongs. The characteristics of Muarasipongi Creole in term of the number of phonemes explains that this creole is different from Minangkabaunese.

Moreover, There also some sameness in term of lexicon but the sound has experienced changes in some position in word. The sound change of the phoneme /a/ becomes /o/ is one of the tendencies found in Muarasipongi Creole.

The result of the research brings some suggestions to the next researchers who are interested in doing the research related to this research. Firstly, the creole used in Muarasipongi must be investigated especially in phonological ways because there many kinds of phonological processes occur in the creole.

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