

# **DISTRIBUTION AND ALTERNATION PHENOMENON IN NGENO-NGENE DIALECT**



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## **Abstract**

This research was conducted in East Lombok, West Nusa Tenggara, exactly in Masbagik capital village. The researcher was born and used the Sasak language in all her life. This research focuses on two variable objects such as distribution and alternation phenomenon. It was about some vowels which were similar to other languages such as vowels  $\alpha$ , i, u,  $\epsilon$ , and o. This research showed some variants from vowels and consonants such as linguistic classifications and introduced the phenomena of vowel distribution sequence and consonant distribution.

The researcher used of Salka and Tsaqilla to this research because they use distribution and alternation phenomena in their language also. Salka focused on phonological process by using Bosowalikan in Javanese and Tsaqilla with a study on phonology of Indonesian spoken by sasak speakers.

This research used collection of the data, identification of the data, clasification of the data, and analysis of the data as a method in identification of research problem.

Theoretical concept this research use generative phonology, distribution and alternation. Then theoretical framework use distribution, alternation, phonological rule and phonological process.

Research method and design the researcher used descriptive qualitative for this research which facilitated the procedure of direct research by explaining the investigated problem and obtained data from environment. Then, it was analyzed and interpreted by giving conclusion. The research variables of this research has two variables: distribution and alternation. Population and sampling technique the researcher used only 15-20 Masbagik people as a sample with standard of productive age between 15-64. The reason was to take the small population because the researcher assumed that all of Masbagik people had similar utterances in a word until small population that could be representative of big population.

Technique and colloecting data the researcher collected the data from family, school, and environment. In this research, the researcher used observation and a direct data collection with recording by using the researcher's mobile before selecting the data. Data analysis procedure the researcher made a phonetic transcription list, the researcher classified vowel and consonant and determined sound, appropriate utterance for transcribing the sounds. For vowel, the researcher classified short vowel and long vowel. Then, the researcher determined some consonants with same pronunciation like 'k' and 'ʔ' sounds but different which both has similar sound.

The researcher found that consonant cluster in  $\eta\alpha\text{no-}\eta\alpha\text{ne}$  dialect had minimal CC and maximal consonant CCC in a word on consonant cluster some words in  $\eta\alpha\text{no-}\eta\alpha\text{ne}$  dialect had nasal which was not mentioned with nasal consonant cluster although nasal appeared adjacent with a consonant because on this case Sasak Masbagik did not allow nasal to adjoin with consonant until common nasal was separated by syllable and called by nasal homorganic.

In vowel distribution researcher found vowel 'a' follow (r, l, p, s,  $\text{ɔ}$ , o,  $\epsilon$ , w) and vowel  $\Lambda$  follow (b, s,  $\eta$ , m, k, n,  $\text{ʔ}$ , ) they call a phonemes. The researcher found that vowel 'i' was phoneme because wider distribution appear on all positions while it's variant was an allophone. Found that vowel 'u' is phoneme because has wider distribution and 'u' limited distribution. Vowels ' $\epsilon$  and  $\text{æ}$ ' appear on all positions are word initial, medial and final positions they are phonemes on

their distribution. Vowel ‘o’ and ‘ɔ’ are phonemes because has wider distributions appearing in all positions.

In consonant distribution the researcher showed liquid distribution ‘l’ and ‘r’ which they are phonemes in their distribution. Glottal stop and velar distribution the velar (k) can appear on all positions while glottal (ʔ) just can appear on final. Nasal distribution η, ŋ, m, n they are phonemes in their distribution

Alternation the researcher found nasal alternation, nasal assimilation, consonant deletion, geminate deletion, pə prefix, voiceless obstruent fusion, glides insertion, consonant epenthesis, bæ and bər prefix.

**Key words:** *Distribution, Alternation and*

*ŋəno-ŋəne Dialect*

## **PENOMENA DISTRIBUSI DAN ALTERNASI DALAM DIALEK NGENO-NGENE**

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### **Abstraksi**

Artikel ini datang dari Lombok Timur provinsi Nusa Tenggara Barat tepatnya di Desa Masbagik. Penelitian ini fokus pada dua objek yaitu pada fenomena distribusi dan alternasi.

Penelitian ini meneliti vokal yang digunakan seperti pada bahasa lainnya seperti α, i, u, ε, dan o. Penelitian ini menunjukkan varian yang muncul pada distribusi vokal maupun konsonan serta memperkenalkan rangkaian vokal dan konsonan pada distribusi.

Penelitian ini menggunakan dua referensi yaitu Salka dan Tsaqila dimana penelitian mereka mirip dengan penelitian yang dibahas pada skripsi ini. Salka fokus pada proses fonologi dengan menggunakan boso walikan di Jawa sedangkan Tsaqila fokus pada pelajaran fonologi pada pengguna bahasa Indonesia dengan pembicara sasak.

Penerfikir peneliti menggunakan distribusi, alternasi, aturan fonologi dan proses fonologi.

Untuk metode dan desain dalam penelitian ini menggunakan deskriptif kualitatif dimana penelitian ini diambil secara langsung dari lingkungan. Sehingga penelitian ini memiliki dua variabel yaitu distribusi dan alternasi.

Untuk populasi dan sampel pada penelitian ini menggunakan 15-20 orang dengan standar produktif umur yaitu 15-64 tahun alasan pengambilan sampel ini karena bahasa Masbagik itu memiliki dialek yang orang Masbagik semua menggunakannya sehingga sedikit sampel ini sudah bisa mewakili keseluruhan sampel yang ada.

Untuk teknik pengambilan data peneliti disini mengambil data dari keluarga, sekolah, dan lingkungan. Penelitian ini menggunakan observasi dan pengumpulan data secara langsung dengan menggunakan handphone.

Prosedur dalam menganalisis data peneliti menggunakan transkrip fonetik yang mana peneliti mengklasifikasikan vokal, konsonan, bunyi dan ucapan yang tepat untuk mentranskripsikan bunyi. Untuk vokal diklasifikasikan menjadi vokal yang di baca panjang dan pendek. Sedangkan konsonan dengan mengenali perbedaan bacaan ‘k’ dan ‘ʔ’.

Untuk bab yang membahas hasil penelitian disini dijelaskan bahwa vokal itu memiliki varian bunyi sedangkan pada konsonan di temukan labial, alveolar, palatal, velar dan glottal.

Penelitian ini juga menemukan konsonan kluster dimana ternyata dialek ini memiliki batasan konsonan pada kata yang digunakan yaitu minimal konsonan yang bisa muncul berdekatan pada satu kata adalah CC dan maksimalnya adalah CCC.

Pada distribusi vokal diikuti oleh ‘α’ (r, l, p, s, ɔ, o, ε, w) dan vokal Λ (b, s, ŋ, m, k, n, ʔ, ) mereka semua adalah foneme. Untuk vokal ‘i’ ditemukan foneme dan allopon yang mana vokal ‘i’ sebagai foneme

dan ‘ɪ’ sebagai fariannya. Sama dengan vokal ‘i’ vokal ‘u’ juga memiliki poneme dan allopon dimana vokal ‘u’ sebagai poneme dan ‘u’ fariannya. Untuk vokal ε, æ, ə mereka bertiga adalah farian dan vokal ‘o’ bersama dengan fariannya adalah poneme.

Pada diatribusi konsonan ditunjukkan distribusi liquid ‘l’ dan ‘r’ dimana mereka berdua adalah poneme pada distribusi mereka. Pada distribusi glottal stop dan velar (k) bisa muncul pada semua posisi sedangkan glottal (ʔ) hanya bisa muncul pada final. Pada distribusi nasal ŋ, ɲ, m, n mereka adalah poneme pada lingkungan mereka.

Mengenai alternasi penelitian ini menemukan alternasi nasal, nasal asimilasi, penghilangan konsonan, penghapusan geminate, awalan pə, voiceless obstruent fusion, penyisipan glides, consonant epenthesis, prefik bə and bər.

**Kata kunci:** *Distribusi, Alternasi dan*

*Dialek ŋəno-ŋəne*

**Introduction**

Indonesia is a country with ethnics and diversities which effectthe diversity of language in this country. Therefore, in addition to Indonesia language as the national language, it has many vernaculars or local languages in almost every area of this country.

Lombok island or more familiar known as Sasak region or an island with one thousand mosques has some different utterances in every village. NTB is a province in Lombok which is also very famous with three ethnic groups and this region has different languages: Sasak, Samawa and Mbojo. Lombok island has five regencies such as West Lombok, Central Lombok, East Lombok, North Lombok and Mataram city. Lombok island by using sasak language as a dialect has part of glossary such Meriak-Meriku (South Lombok), meno-mene and ŋeno-ŋene (Central and East Lombok),

ŋeto-ŋete (Southeast Lombok), and Kuto-Kete (North Lombok) (wikipedia Indonesia).

This research was conducted in East Lombok, West Nusa Tenggara, exactly in Masbagik capital village. The researcher was born and used the Sasak language in all her life. Masbagik language always use ε spoken in their utterence during the conversation but the researcher does not discuss about that in as much as this research focuses on two variable objects such as distribution and alternation phenomenon. Sasak people sometimes use ŋeno-ŋene and meno-mene in several villages located in Lombok island.

məno-məne dialect is usually used in East Lombok such as Sakra, Sikur, Terara, Keruak, Jerowaru, and Selong subdistrict, while ŋeno-ŋene is used in Masbagik, Pringgabaya, and Pohgading subdistrict. ŋəno-ŋəne dialect means that ‘ŋeno-thus’ and ‘ŋene-like that’ same like ‘meno-thus’ and ‘mene-like that’. Therefore, Sasak language has different dialects but has the same meaning.

In addition, the researcher used Willian’s research as an orientation in this research. Next, the researcher showed a table containing some dialects using Sasak language adopted from Dr.Sudirman Willian.

**(1) The table of some dialects on Sasak Language**

No	Name	Dialect	Region use
1	Pejanggik Dialect	məno-məni dialect	West Lombok, Central Lombok and East Lombok
2	Selaparan dialect	ŋəno-ŋəne dialect	East Lombok

3	Pujut dialect	məriʌ ? - məriku dialect	South Lombok
4	Suralaga dialect	ŋgəto- ŋgətɛ dialect	East Lombok
5	Kuto-kutɛ dialect	Petung bayan dialect	North Lombok

Adopted by Sudirman Wilian, (2010,p:25).

He classified the dialects according to his research by using Pujut (məriʌ ? -məriku dialect) dialect used in south regions including Pujut, West Praya, North West Praya, and some in East Praya until Jerowaru (East Lombok). In part of Central Lombok island this dialect is used by the people in Jonggat sub-district (Central Lombok).

It is also found between in the middle of Pejanggik dialect in Selaparang, such as Pademare village and Denggen village East Lombok regency. Then, the Bayan dialect is used in North Lombok including Pemenang, Tanjung, Gangga and North Lombok regency.

The East Lombok dialect such as Sembalun, Obel-obel, Wanasaba and Suralaga by using Selaparang dialect is ŋəno-ŋəne dialect.

This research focused on ŋəno-ŋəne dialect. It was about some vowels which were similar to other languages such as vowels a , i, u, ɛ , and o. The researcher's assumption was that Masbagik's vowel not only consists of five vowels but also more because the researcher found that vowel 'a', for example, would hear two sounds such as long and short vowel when pronounced 'a o?' and ʌ mbo? . We are able to know both with the identification appearing location by using vowel distribution. This case became a reason for the researcher's in

analyzing vowel distribution on ŋəno-ŋəne dialect.

Phonology is the subfield of linguistics that studies about the structure and systematic patterning of sounds in human language with investigation of how speech sounds are produced on articulation in the vocal tract. It usually refers to the abstract rules and principles that govern the distribution of sounds in a language. Akmajian, (2001, p:66).

Then, phonetics usually refers to the study of the articulatory and acoustic properties of sound, it is the study of speech sounds Akmajian, (2001,p:66).

In addition, Odden (2005, p:38) said that "Phonology is one of the core fields that composes the discipline of linguistics". It means the Odden's theory on phonology is central area which consists of linguistic arrangements.

According to Fromkin, (2010,p:201) ." The differences among the sound pattern of the world languages are so great that no general notion of "difficulty of articulation" can fully explain all of the phonological facts about a particular language". This Fromklin's theory explains about sound patterns of general language in the world and supposition because difficult articulation can explain all of phonology evidence about a particular language.

Phoneme is a language unit which represents language sounds. According to Jones (1987,p:10), phoneme is a part of sounds in a language specification which has relation with character and the use with special method where there is no similarity between phonetic and another.

Then, according to Connor, Vocal on a phoneme is sound occurring because of air passing through different mouth size "Vowel are made air passing through different mouth shapes, the differences in the shapes of the mouth are caused by different position of the tongue and the lips" Connor, (1995,p:35).

O'Grady (1996,p:136) states that there are three parts of phonetics according to sound production by human, they are :

- a. **Articulatory phonetics:** it explains that sounds production method is according to tongue and lips location. Small or large are open lips giving effect on vocal vibration or not.
- b. **Acoustic phonetic:** it explains that deliverance of sounds through air which a sound utterance occur air minority such sound swell.
- c. **Auditory phonetic:** it explains that acceptance of sound language is resulted by native speaker.

The researcher was introduced the appropriate terminology. The first question relating to function is the distribution of the sounds those positions in which it can occur. The second aspect of function derives from distribution.

This research showed some variants from vowels and consonants such as linguistic classifications and introduced the phenomena of vowel distribution sequence and consonant distribution. Then, the researcher also investigated some processes or phenomena correlating with the alternation phenomenon in the sounds systems of human languages.

According to Peng, (2013,p:15) identification sounds pattern in human language must look for uneven or asymmetric distributions. Uneven distribution means that

phonological process get result indirectly although it has known result but look at two possible appearances because the researcher uses some assumptions to get real evidence.

The distribution is phonological phenomenon using the restrictions on vowel sequencing in  $\eta\text{əno-}\eta\text{ə}\text{n}\text{ɛ}$  dialect roots as a data. The important of knowing the logically possible outcomes is that the researcher was able to know the patterns which exist because a pattern is an essential distortion from the even distribution of logically possible outcomes.

Then, alternation phenomena consisting of prefix and affix is phonology phenomena which each unit on a word has mean. In addition by Peng, (2013, p:97) the alternation is a type of phonological phenomenon in which a unit of meaning such as a root or prefix is alternate in pronunciation.

The researcher used of Salka and Tsaqilla to this research because they use distribution and alternation phenomena in their language also. Salka focused on phonological process by using Bosowalikan in Javanese and Tsaqilla with a study on phonology of Indonesian spoken by sasak speakers.

First, Salka's research explained that the phonological process analyzed glottal stop phenomena, nasal process consisting of nasal assimilation, vowel nasalization and the last for nasal consonant effect consisting of voiceless obstruent fusion, metathesis and schwa insertion and consonant devoicing consisting of liquids devoicing, glides devoicing and obstruent devoicing. It was continued by schwa insertion, glides insertion and rule insertion.

Second, Tsaqilla's research showed that the distribution of Indonesian nasal devoicing into four parts are distribution of Indonesian nasal in a word, types of nasal consonant cluster allowed in Indonesia, Indonesia

distribution of stops, and distribution of vowels in Indonesian. Phonological process consists of nasal process deiving into two parts are nasal assimilation and nasal deletion. Fusion consists of voiceless stop fusion, velar nasal and voiceless alveolar fricative fusion and the last voiceless obstruent fusion. Schwa insertion consists of vowel nasalization, final obstruent devoicing and glide deletion. Glottal stop phenomena consists of glottal stop velarization and glottal stop insertion.

The researcher was interested in reviewing this research on sasak masbagik because it had not been investigated this phenomena yet in Sasak language especially in  $\eta\text{əno-}\eta\text{əne}$  dialect.

## **Method**

The researcher used descriptive qualitative for this research which facilitated the procedure of direct research by explaining the investigated problem and obtained data from environment. Then, it was analyzed and interpreted by giving conclusion.

Descriptive qualitative is a method in this research. Its main method of data collection is tightly related to recording, selecting the data, writing the data, analyzing and resulting. The researcher explain and describe the data which is displayed in the form of field-notes.

According to Strauss and Corbin (1990), through qualitative research we can study about phenomenon which often could not be explained through quantitative method.

In qualitative research, the data is natural setting, primer source of data, participant observation, in depth interview and by documentation. The fundamental methods relied on by qualitative researchers for gathering information is participant in the

setting, direct observation, in depth interviewing and document review.

The design applied as an approach to identify and describe the phenomena happening in nature setting. Beside that the researcher has also a native speaker of Sasak and another sample to take the data from Husni Muadz's student assignments. The researcher recorded the conversation before selecting the data, writing on the data, analyzing the data and getting the result.

According to central statistic institute in Lombok Timur, if it is in line with inhabitant denseness, it is big population from some villages in East Lombok with 2,985 soul/km<sup>2</sup>. Masbagik had many inhabitants in sub district in 2005 and increased up to 99,029/8,51% in 2006 year. The researcher did not take all population in Masbagik but the researcher selected the population according to productive and non productive age of Masbagik people that were between 15-64 years old with degree 65, 039% as productive people. Masbagik village has clasification according to each locations such as Kesik, Paok Motong, South Masbagik, East Masbagik, North Masbagik, Danger, Lendang Nangka, New North Masbagik, North Lendang Nangka, Kumbung. Each villages has some gender variations such as the data from statistic institute that the researcher described with the data. Source: inhabitant projection

After the researcher analyzed the data above, the researcher used only 15-20 Masbagik people as a sample with standard of productive age between 15-64. The reason was to take the small population because the researcher assumed that all of Masbagik people had similar utterances in a word until small population that could be representative of big population.

Creswell (2012: 142) states that for target population, the researchers then select a sample for study. A sample is a subgroup of the target population that the researcher plans a method for generalizing the target population.

The steps of data analysis above is elaborated as follows:

### ***3.5.1 Identifying The Distribution types, Alternation types, and phonological processes***

In this process, the researcher identified the distribution types and alternation types which is usually used in spoken language of Masbagik people.

### ***3.5.2 Classifying The Distribution types, Alternation types and phonological processes which will be used in the spoken language of Masbagik people (Cross checking)***

In this step, the researcher classified the distribution types such as (complementary distribution, allomorph distribution and allophone distribution) and alternation types (phoneme alternations, underlying representation, feature of sounds) used in the spoken language of Masbagik people. The researcher determined which one belongs to the distribution types and alternation types.

### ***3.5.3 Defining and describing The Distribution types, Alternation types and phonological processes***

In this step, the researcher obtained data by defining and describing one by one to give more understanding to the readers about the use of distributions and alternations in spoken language of Masbagik sasak people.

### ***3.5.4 Presenting the data***

Selecting the data based on the data clasification would be then presented in line with research problems, including the temporary conclusion which is obtained in data reduction.

### ***3.5.5 Concluding the Findings and evaluation***

In this step to find the patterns, it is a possible configuration or the researcher proportion. The conclusion would be verified during the research to see the use of distribution and alternation in spoken language of Masbagik-Sasak people.

### **Finding & Discussion**

The researcher found some processes on distribution and alternation phenomenon. The researcher intended to introduce some phenomena and process in the study of phonology which the researcher took a sample from Sasak Masbagik with  $\eta\text{əno-}\eta\text{ə}\text{n}\text{ɛ}$  dialect.

The goal of this research was to develop readers' ability to analyze their sound patterns in the natural language. The research used some methods from Peng's book that the writer introduced how to analyze, to observe, to identify and to describe pattern, with hypotheses and construct analyze, compare and evaluate hypotheses, the use of linguistic argument and the conclusion of the analysis.

This research consists of two phenomena such as:

1. Distribution phenomenon
2. Alternation phenomenon

For distribution the researcher analyzed vowel distribution and the researcher found phoneme and allophone to appear in their environment. Whereas, the consonant

distribution the researcher found liquid distribution, glottal stop and velar distribution and than nasal distribution.

For alternation the researcher found nasal assimilation, consonant deletion, geminate deletion, pə prefix alternation, voiceless obstruent fusion, bə and bər prefixes and schwa insertion.

The researcher identified sound which is consist of vowels and consonants identify.

The researcher found the sum of vowel identification in ηəno-ηəne dialect including their variants. Actually ηəno-ηəne dialect has five vowels (ɑ, i, u, ε, o) like another languages but after the researcher analysis with IPA phone the researcher found their variants such (Λ, ɪ, ʊ, ə, æ, ɔ). The researcher maked a conclusion that there were eleven vowels used in ηəno-ηəne dialect including variants. Whereas, the consonant identification the researcher is found labial (p, b, m), alveolar (d, t, s, n, l, r), palatal (c, j, ɲ), velar (g, k, ŋ and w) and glottal (ʔ and h).

This research showed some phonological processes in ηəno-ηəne dialect such as nasal assimilation, consonant deletion, geminate deletion, voiceless obstruent fusion and schwa insertion.

For establishing rule the researcher applied two rules: rule approach and templatic approach. Rule approach focused on skeletal unit that was one syllable, while templatic approach focused on two syllables and syllable structure until resulting nasal homorganic. And this research showed process of syllabification on vowel and consonant distribution. On this process the researcher found phoneme and allophone appearing on their environment as well as another environment and the researcher

found maximal syllabic also which has combination CCCVC.

The researcher prepared the research which result completed with the data. The researcher started to analyze the data with sound identification by explaining distribution and alternation phenomena.

This table illustrates the vowel present (UR= unrounded) and (R= rounded) on appropriate ηəno-ηəne dialect tongue positions.

	Front		central		back	
	UR	R	UR	R	UR	R
High	i					u tense
	ɪ					ʊ lax
Mid			ə			o tense
	ε		Λ			ɔ
Low	æ					ɑ
						tense

*The descriptions of vowels size according Mahon.MC and Baker.Ann(2002)*

Long vowels: i:, u:, ɔ :, a :, and ɜ :

Short vowels : ɪ , e, ʊ , ə, Λ , ɒ and æ

*The descriptions of articulatory grid vowels by use Masbagik people*

Vowel descriptions	Example
Vowel /ɑ / : the features are [long back low unrounded]	[ɑ oʔ ] ‘yes’
Vowel/Λ / : the	[Λ mpoʔ ]



features are [short central mid unrounded]	‘more’
Vowel /i/ : the features are [long front high unrounded]	[i:du p] ‘life’
Vowel /ɪ / : the features are [short front high unrounded].	[ɪ nte ] ‘spying’
Vowel /u/ : the features are [long back high rounded].	[u:lɛ ? ] ‘go home’
Vowel /ʊ / : the features are [short back high rounded].	[nu ndok] ‘bent down’
Vowel /ɛ / : the features are [short front mid unrounded].	[ɛ lɔ ? ] ‘tongue’
Vowel /æ/ : the features are [short front mid unrounded].	[æɪ ? ] ‘water’
Vowel /ə/: the features are [long central mid unrounded].	[cə lɔ ŋ] ‘dishonest’
Vowel /o/: the features are [short back mid rounded].	[gowæ] ‘stupid’
Vowel /ɔ /: the features are [long back mid rounded].	[ɔ kɔ k] ‘lie’

The following is a list of consonants of Sasak Masbagik language:

[p] : voiceless bilabial stop  
[pɔ ntɔ k] ‘beat’

[b] : voiced bilabial stop  
[bɔ ŋkə t] ‘rice field’

[m] : voiced bilabial nasal  
[mɔ ŋɔ n] ‘eat’

[t] : voiceless alveolar stop  
[tə kɪ ? ] ‘pinch’

[d] : voiced alveolar stop  
[dæɪ t] ‘meet’

[s] : voiceless alveolar fricative  
[sæɪ ? ] ‘one’

[n] : voiced alveolar nasal  
[ni:yʊ p] ‘blow’

[l] : voiced alveolar liquid  
[li:wɔ t] ‘by way’

[r] : voiced alveolar liquid  
[ri:bʊ t] ‘noisy’

[ç] : voiceless palatal affricates  
[çə lɔ ŋ] ‘dishonest’

[j] : voiced palatal affricates  
[jæwʊ ? ] ‘bring’ ‘

[ɲ ] : voiced palatal glide  
[ɲ owæŋ] ‘ screamed’

[k] : voiceless velar stop  
[kə risæ] ‘renovation’

[g] : voiced velar stop  
[gɔ dɛ ŋ] ‘gold brown’

[ŋ] : voiced velar nasal  
[ŋkbʊ r] ‘water big down’

[w] : voiced velar glide  
[wɔ h] ‘finish’

[ʔ ] : glottal stop  
[ɑ oʔ ] ‘OK’

[h] : voiceless glottal fricative  
[sə doh] 'pour boiling water'

[l] : voiced alveolar liquid  
[li:wΛ t] 'by way'

The following are consonants of ηəno-ηəne dialect with their articulation based on the place of articulation:

1. Labial  
Labial sounds in ηəno-ηəne dialect are [p], [b] and [m].
2. Alveolar  
Alveolar sounds in ηəno-ηəne dialect are [d], [t], [s], [n], [l] and [r].
3. Palatal  
Palatal sounds in ηəno-ηəne dialect are [c], [j] and [ɲ].
4. Velar  
Velar sounds in ηəno-ηəne dialect are [g], [k],[ŋ]and [w].
5. Glottal  
Glottal sounds in ηəno-ηəne dialect is [ʔ ] and [h].

[r] : voiced alveolar liquid  
[ri:bu t] 'noisy'

[c] : voiceless palatal affricates  
[cə lΛ η] 'dishonest'

[j] : voiced palatal affricates  
[jæwʊ ʔ ] 'bring' ‘

[ɲ ] : voiced palatal glide  
[ɲ owæŋ] 'screamed'

[k] : voiceless velar stop  
[kə risæ] 'renovation'

[g] : voiced velar stop  
[gɑ dε η] 'gold brown'

[ŋ] : voiced velar nasal  
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[tə kɪ ʔ ] 'pinch'

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[dæɪ t] 'meet'

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[sæɪ ʔ ] 'one'

[n] : voiced alveolar nasal  
[ni:yʊ p] 'blow'

## Syllable distribution

### 5.2.1.1 The puzzle

**Type**   **inital**   **gloss**   **medial**   **gloss**   **final**   **gloss**

**CV**   **ja** :.rΛ nhorse   **bə .la** :.jΛ r study  
pæ.yu:   so

**CCV** **crɔ** .bɔ t   struggle  
sə m.pru:spit on

**CVC** **tΛ ŋ.kɔ** ŋ   clothing   **n.tΛ n.tæ** a  
method   **də .tə ŋ**   come

**V**   **ɑ .oʔ**   yes   **sæ.i** who

**CCVC** srə m.pɔŋ lantern glass jʌŋ.krɛ k  
cricket

**CCCVC** stru m electric

**VC** ʌ m.pɔʔ again pæ.ɪ t bitter

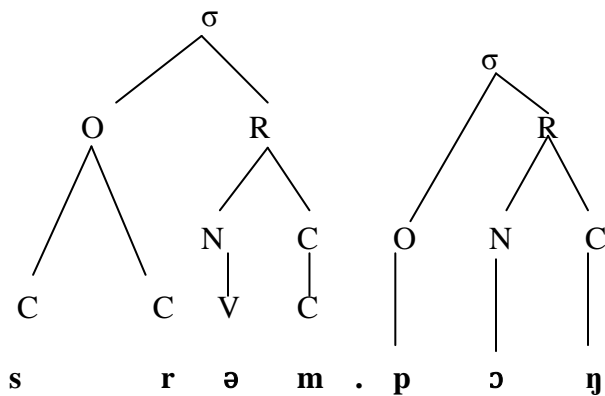
**C** n.tʌ n manner

**VCV** æwu-æwu rice charcoal

### 5.2.1.2 Determining the maximal syllable in ɲəno-ɲəne dialect

Linguistics use four terms to describe the internal organization of a syllable are onset (O), rime (R), nucleus (N) and last coda (C). (Peng.2013.p.195)

From the data above the researcher took an example in ɲəno-ɲəne dialect. There are four syllables by the sequences (CCVC) for example on srə m.pɔŋ word.



The data above showed that there are two syllables from type (CCVC) syllable in ɲəno-ɲəne dialect. It seems rather obvious that the Masbagik syllable include four segments.

The syllable represented by the Greek symbol sigma  $\sigma$  has two parts: onset and rime. The onset refers to the consonant preceding the rime in a syllable. The rime is composed of two units : nucleus and coda. The nucleus refers to the vowel or vowels (long vowels or

diphthong) which form the syllable peak. Until when a vowels is absent, a consonant can be a sonorant serving as the syllable nucleus. Consonants have function as the nucleus which referred to as syllable consonant because it has ability to serve as the syllable nucleus. The coda refers to the consonant following the vocalic nucleus. Some theories recognize onset, rime, nucleus and coda as the units within a syllable.(Peng:2013.p.196)

### 5.2.1.3 Identifying the restrictions on syllable-internal units

The researcher started identifying the restriction from the onset, rime, nucleus and coda.

Onset requirements:

- Onset is optional
- Onset can have at one or more consonants.

Rime requirements:

- Rime has a minimum of one segment V or C (if a vowel nucleus is missing) and rime is made up of at most two segments VV or VC.

Nucleus requirements:

- The nucleus is obligatory
- The nucleus can be composed of a short vowel, a long vowel or a consonant. Nuclei with diphthong is prohibited.
- The nucleus composed of a syllable consonant is allowed under two conditions. First, it is word-initial, and second the consonant must be nasal homorganic with the following consonant.

Coda requirements:

- a. The coda is optional
- b. The coda if it includes maximally one consonant.

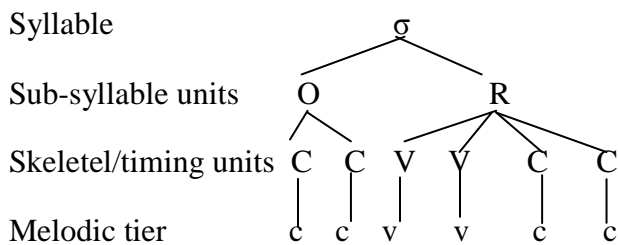
### 5.2.1.3.1 Two approaches to syllable construction

The researcher used two approaches such on Peng's book when the researcher analyzed syllable in Ponapean language. The researcher used this goal because Ponapean language had similarity with ηəno-ηəne dialect. They had similar maximal and minimal syllable in a word. The first rule was used in Ponapean language such the rule approach and second tempaltic approach use. And the researcher used two approaches like Ponapean to get simple rule because it can be clear to explain the data.

#### 5.2.1.3.1.1 The rule

##### approach

- ✓ *The internal structure of a syllabic according to (Peng.2013.p.201)*



According to the (5.2.1.3.1.1) the syllable structures are constructed on the skeletal units composed of a string of C's and V's. For consonant and vowel melodies C's and V's indicate slot reserved, the use of the capitalised C's and V's refer to skeletal units. While, the segment melodies linked to these skeletal slots are marked by the lowercase letters at the melodic tier to distinguish them from the skeletal units. Usually, the lowercase v represents some melody vowels such as *i, u or*

*a* while the lower case *c* consonant melody such as *p, m or l*.

The requirement syllable is project a syllable σ from each V, adjoining a consonant to the immediate left of the rime as the onset of the following syllable σ, adjoining a consonant to the left of an onset to this onset, and adjoining a consonant to the right of a rime to this rime.

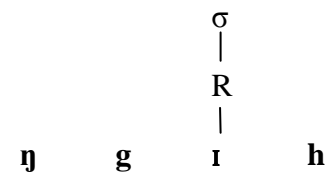
- ✓ *Input to the syllabification rules*



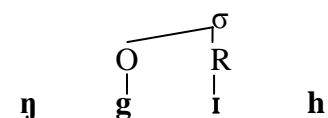
Project syllables:

- a. Project a syllable σ from each V.
- b. Adjoin a consonant to the immediate left of an onset of the following syllable σ.
- c. Adjoin a consonant to the left of an onset to this onset.
- d. Adjoin a consonant to the right of a rime to this rime.

- a. Project a syllable σ from each V.

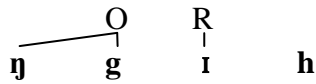


- b. Adjoin a consonant to the immediate left of an onset of the following syllable σ.

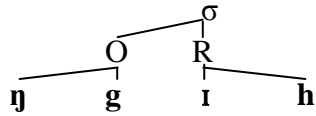


- c. Adjoin a consonant to the left of an onset to this onset.





d. Adjoin a consonant to the right of a rime to this rime.



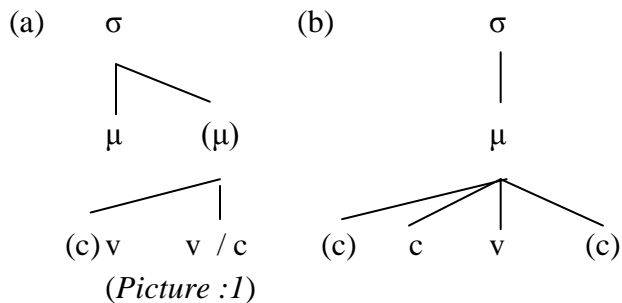
Before the researcher continued to get the appropriate result on all assumptions, the researcher used templatic approach and expected that this approach can answer of the researcher assumptions.

### 5.2.1.3.1.2 *Templatic approach*

The prosodic template approach also uses the Greek symbol sigma  $\sigma$  to represent the syllable, but the syllable-internal units are marked by the Greek letter mu  $\mu$  referred to as ‘mora’ in phonological literature.

In the Moraic theory vowels are moraic. It means that they occupy the positions specified by the mora with each mora allowing one and only one segment.

#### *Masbagik syllable template*

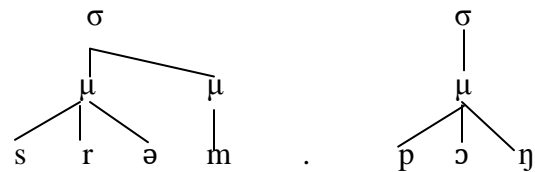


*Note* : Moraic representations of nuclei composed of a short and long vowel in another case is nasal homorganic.

Nasal homorganic is a nasal adjoined with a consonant that has same place of articulation with nasal itself on a word which they can not be one syllable.

#### ✓ *Masbagik syllable template*

ηəno-ηəne dialect did not use double vowels or double consonants when they showed those long sound because Masbagik follows IPA symbol. Evidence was seen from vowel or consonant used in English language. Although, Masbagik was not similarity with another language but it had syllable template also. Next, the researcher showed Masbagik syllable template from example ‘srə mpoŋ’ and ‘jʌ ŋkrɛ k’ words which both were syllables that can appear on initial and final syllable.

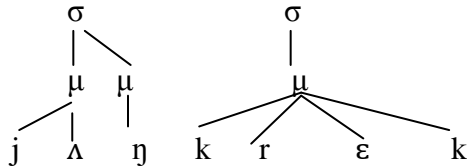
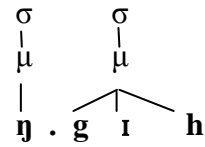


(Picture:2)

According to Masbagik syllable above, the researcher found that nasal homorganic appearing in ηəno-ηəne dialect. Nasal homorganic appeared between consonant ‘m dan p’ which both had similarity in place of articulation that are bilabial. However, when nasal adjoined between some consonants and they had same places of articulation that was called nasal homorganic.

The another evidence about nasal homorganic in ηəno-ηəne dialect was that the researcher used nasal homorganic for example such as ‘jʌ ŋ.krɛ k’ word which nasal adjoined

with consonant 'k' that has same places of articulation that is velar.



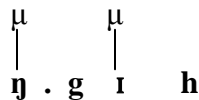
(Picture:3)

Moraic formulas:

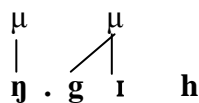
- a. Projecting a mora from each vowel
- b. Associating a consonant to the immediate left of a mora to this mora
- c. Projecting a mora from any remaining consonant

Following the moraic formula above the researcher used more examples such as 'ηgɪ h' word.

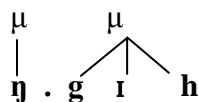
- a. Projecting a mora from each vowel



- b. Associating a consonant to the immediate left of a mora to this mora



- c. Projecting a mora from any remaining consonant



- d. Result of a mora from vowel, consonant and remaining consonant

After the following of the project of mora, the researcher found in ηəno-ηəne dialect that nasal homorganic can independent to be a syllable when it appeared on an initial word.

The researcher was different from the rule approach because of two ways: first the templatic approach does not recognize the division between onset and rime. The adjoining of the onset to the initial mora of a syllable grouped the onset and the initial mora to one unit. Second, it does not recognize the rime onset as a unit because the two moras on a syllable are not grouped to one unit. Although two approaches had similarity and differences, but both approaches focus on a core CV syllable.

The rule approach is required that the two steps in project syllable apply first in the construction of syllable structures start from CVC. While in the templatic approach, syllabification is accomplished by the second step of moraic which adjoins as a consonant following mora. When syllable template project, this mora to the template creates the syllabification which consonant following vowel to be one syllable.

The similarity from these approaches are generate only syllabifications that are attested and illformed syllabifications that can never be generated because both approaches attempt to block syllabifications not allowed in a language. When the use of the rule approach can be blocked by universal conditions on a well formed syllable such as sequence, the restrictions on the segment is until the order the

syllabification rule apply. Template approach illformed syllabifications are blocked by the template, association to templates, by universal and language specific conditions.

The differences of these approaches are rule approaches focusing on skeletal units and templatic rule that focused on syllable structure directly on segmental melodies.

**Consonant cluster**

The consonant cluster is the two consonants that come closer on a word in ηəno-ηəne dialect.

Ndə t ndə t ηkʊ s ntə η mpə s mpə s  
crə bə t prut dbə k plɪ t

**Maximal and minimal syllable in ηəno-ηəne dialect and the sum of syllable in one word unit**

(9) Table of Masbagik syllable use

One syll	Two syll	Three syll	Fourt syll
strʊ m	ja :rʌ n	Bə.la .jʌ r	ɑ .ni.yɑ .y ʌ ʔ
strɔ k	lʌ η.gʌ r	Bə.tʌ η.ko η	-
wʌ h	jæ.gʊ r	-	-
Wæt	ʌ m.pə s	-	-

From the table above the researcher showed that ηəno-ηəne dialect has four syllables in unit word.

**Consonant cluster in ηəno-ηəne dialect**

✓ *Consonant cluster in a syllable*

The researcher found that consonant cluster in ηəno-ηəne dialect had minimal CC and maximal consonant CCC in a word.

**Data illustrating consonant cluster in ηəno-ηəne dialect**

brʊ ʔ	prʊ t	mrɪ ʔ
mrə t	crə .bə t	
plə η	brɛ .ηʊ s	
græmʊ s	broʔ	bræɪ ʔ
	crʊ:bʌ k	crə .rə t
sræt	græs	grʊ p
grʊ s	glɪ s	grək
jrʌ ʔ	jrɛ h	kri s
klə m	klʊ s	plɔ t
plɪ t	skʊ r	srʊ t
srə m.pon	stɔ r	stʌ η
tlə p	tra .wæh	klʌ ʔ
jrə t	krɔ η	krə t
plɛ h	træk	clɛ h
kri η.kɪ ʔ	spə t	strʊ m
prʊ s	pru:	træη
tri s	prə s	klæk
prə .kəs		jʌ η.krɛ k
kbəs	kbʊ s	kbʌ s
kbʌ h	btʌ ʔ	btɔ k
səmpru:	kri s	gbok
jrɔ		

**Identifications of consonant cluster in ηəno-ηəne dialect**

Pr : prʊ t, sə mpru, pru, prʊ s, prə s, prə kəs

Cr : crə bə t, crə rə t, crʊbʌ k

Kr : jʌ ηkrɛ k, krə t, krɔ η, kri ηkɪ ʔ , kri s

St : stɔ r, stʌ η

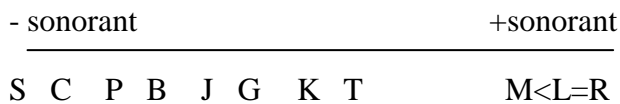
Str : strʊ m

Sr : srə mpə η, srʊ t

Tr : tra wɛ h, trɛ k, træη, tri s

- Sk : skʊ r
- Gr : grʊ p, græs, grʊ s, græmʊ s, grək
- Kb : kbʌ h, kbʊ s, kbʌ s, kbes
- Gl : glɪ s
- Gb : gbok
- Pl : plɔ t, plɛ h
- Br : bræŋʊ s
- Mr : mrə t, mri ?
- Jr : jrɛ h, jro, jrə t

*1. Diagram of high and low sonorant levels in ηəno-ηəne dialect*



The assumption on diagram above showed that consonant S has low level than P. Consonant P was same level with consonants C, K, G and J. But consonant D had high level than J and consonant D had low level than B. It had low level than M, consonant M had low level than consonant L but same level with consonant R. The researcher showed right on second diagram sonorant sequences that had low and high level with systematic on it after showing appear vowel ‘ə’ when fast speech.

Sonorant sounds produced with a vowel tract cavity in which spontaneous voicing is possible. Vowels, glides, liquids and nasals are all sonorants. (Akmajian:1983.p.146)

To know how to read high and low sonorant, the researcher started from right (+) which it had high level while left (-) had low level. Right nucleus near sonorant level became high. For consonants M, L and R attested had high levels sonorants because it always

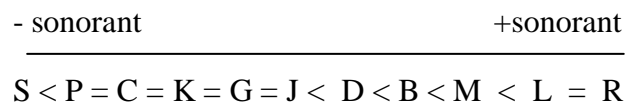
appeared to adjoin with vowel or nucleus to answer another consonant. The researcher showed the data that was not consonant cluster but when speech listen such consonant cluster.

Such instruction above the researcher used example ‘gbok’ word which this word if it was used fast speech speaker would listen like there was vowel ‘ə’ after consonant ‘g’ to be ‘gə bok’.

*Data illustrating appear vowel ‘ə’ in ηəno-ηəne dialect*

- bə rɔ ŋ bə dæk bə tɔ r gə bok də kɪ l gə də k
- jə ʌ p jə bʌ k jə bə l lə pɪ t kə bʊ s kə dʊ l
- bə tɔ k bə tʌ ? də bə k rə bʌ ? rə bɔ ŋ pə cu t
- pə kæl pə tʊ ? tə pæs jə lu t cə lu t gə tɔ k
- gə tʌ ? kə bʌ h sə gæn.tʊ s kə dɔ k

*(10) The table of sonorant sequences*



From the data above we could see that those consonants are left to the right or consonant far to consonant near vowel that is consonant cluster that had systematic sequence. It means that they could not change to place. For example, ‘strum’ consonant cluster sequence was s-t-r and did not changed to be s-r-t or t-s-r and so on. These showed that it influenced these case. For this case the researcher saw through a feature sonorant from each consonants.

**5.2.1.4.6 Nasal homorganic**

ηəno-ηəne dialect allowed nasal homorganic used on some words. For some words in ηəno-ηəne dialect had nasal which



was not mentioned with nasal consonant cluster although nasal appeared adjacent with a consonant because on this case Sasak Masbagik did not allow nasal to adjoin with consonant until common nasal was separated by syllable and called by nasal homorganic. Nasal homorganic is nasal adjoined with another consonant that had place of same articulation.

- ✓ The illustrates data of nasal homorganic in ηəno-ηəne dialect

n.tə η	m.pə s	η.ku s
n.dot	m.bə t	η.kə s
m.pə s	n.də t	n.du t
n.tə h	n.tə n	n.ti ?
n.tu t	n.to?	n.də m

There were some nasal homorganic that could be seen such as CC but separated in syllable. The researcher prepared explanation about this on next section on syllable process.

### The sounds of clasification distribution

#### 5.2.2.1 Vowel sequence Distribution

The researcher introduced the vowels of Sasak Masbagik that could be transcribed in many differences way because accents of Sasak Masbagik differ greatly in the vowels they used because there was no one right way of transcribing even a single accent of ηəno-ηəne dialect.

The generalization of ηəno-ηəne dialect had different a vowel and a consonant various shape when utterances also. The data explained how sounds had restriction on the occurrence of vowel sequences on the co-occurrence of stress and tone or on placement of it and to be in certain positions in a syllable or word. It was found distributional problems concerning supra segmental such as syllable.

Vowels are sonorous syllabic sounds made with the vocal tract more open than it is for consonant and glide articulations. Different vowels are produced by varying the placement of the body of the tongue and shaping the lips. The shape of the cavity can be further alternated by protruding the lips to produce rounded vowels or by lowering the velum to produce a nasal vowels, vowels may be tense or lax depending on the degree of vocal tract constriction during their articulation. O'grady Dobrovolsky and Aronoff.

#### 5.2.2.1.1 The puzzle

The data come from Sasak language especially ηəno-ηəne dialect bi-syllabic root in this section. The research found that a vowel could not together appear with some vowels and found phoneme and allophone in the data.

#### 5.2.2.1.1.1 Masbagik bi-syllabic roots

ɔ pɔ η ja :rɒ n ma :nu k ba :ge ? ta æk  
 a ηən tətɔ la :lo juju ?  
 ɔ ɲ ət ləŋe tɒ mpəl ʌ mpɔ ? ulɒ ?  
 kupi uru tɒ ηkɔ η irɒ ? iti  
 isɪ ? milu inæ iyæ  
 pinəŋ ino ulɛ ? tɒ ηkɒ ? kuræq bulət  
 ulɔ h səmpæɪ t kəɔ k tɛ mpəs pɛ lɔ k  
 ge pæŋ æpɔ ? kædu  
 æɪ ? dæki sədi  
 səɪ ? kəlɒ ? lətɔ ? kəlæk  
 gətɔ k səɔ h owɒ t ɔ pɒ k2  
 sowæk kɔ se η ɛ kæk ɔ ɲ ɔ t  
 ɔ sɔ k ose? i:ru p ci:pok  
 ɛ lɒ ? kulɪ ? tekɔ η æɪ ?  
 sə bo? belo ketowɒ n semprɔ t kɛ ræŋ  
 bə lɔ η  
 tu mpɒ h æwu-æwu tɒ ηge l ni ndo?  
 mɒ nci η tɒ ηkɔ η si ηgɒ ?

ɲɪ mpi:        ɪ ntɛ        kɛ ræŋ  
 tɔmbɔʔ        lonto        tɔ kɔ l tɔ ɲjɛ k  
               pə rɑ :sɔʔ    ɛ pɛ        səʊ t  
               pʊ ntɪ ʔ    jʊ ksʊ r    pʊ ndokɔ n  
 gentɪ ʔ

✓ *The data of vowels ɲəno-ɲəne dialect*

Sasak language had some vowels in common use between ɑ , ʌ , i , ɪ , u , ʊ , ɛ , æ , ə , o , ɔ . Each vowel had some variants until the researcher classified these vowel appropriate utterances.

### 5.2.2.1.1.2 Logical possibility

The researcher had expected eleven logically possible vowels sequences in by-syllabic roots and if number results from random pairing get 121 vowels sequences, eleven vowels from in V<sub>1</sub> and eleven vowels from V<sub>2</sub> if the calculations get number resulting (11x11=121) vowels logical possible vowels sequences.

✓ *Logically possible vocalic patterns of bi-syllabic roots*

ɑ.ɑ ʌ.ɑ i.ɑ ɪ.ɑ u.ɑ ʊ.ɑ æ.ɑ ɛ.ɑ ə.ɑ  
 o.ɑ ɔ.ɑ  
 ɑ.ʌ ʌ.ʌ i.ʌ ɪ.ʌ u.ʌ ʊ.ʌ æ.ʌ ɛ.ʌ ə.ʌ  
 o.ʌ ɔ.ʌ  
 ɑ.i ʌ.i i.i ɪ.i u.i ʊ.i æ.i        ɛ.i        ə.i  
               o.i ɔ.i  
 ɑ.ɪ ʌ.ɪ i.ɪ ɪ.ɪ u.ɪ ʊ.ɪ        æ.ɪ  
               ɛ.ɪ ə.ɪ        o.ɪ ɔ.ɪ  
 ɑ...u ʌ...u i...u ɪ...u u...u ʊ...u  
 æ...u ɛ...u ə...u o...u ɔ...u  
 ɑ...ʊ ʌ...ʊ i...ʊ ɪ...ʊ u...ʊ ʊ...ʊ  
 æ...ʊ ɛ...ʊ ə...ʊ o...ʊ ɔ...ʊ

ɑ...æ ʌ...æ i...æ ɪ...æ u...æ ʊ...æ  
 æ...æ ɛ...e ə...æ o...æ ɔ...æ  
 ɑ...ɛ ʌ...ɛ i...ɛ ɪ...ɛ u...ɛ ʊ...ɛ  
               æ...ɛ ɛ...ɛ        ə...ɛ o...ɛ  
               ɔ...ɛ  
 ɑ...ə ʌ...ə i...ə ɪ...ə u...ə ʊ...ə  
               æ...ə ɛ...ə ə...ə o...ə ɔ...ə  
 ɑ...o ʌ...o i...o ɪ...o u...o ʊ...o  
               æ...o ɛ...o ə...o o...o ɔ...o  
 ɑ...ɔ ʌ...ɔ i...ɔ ɪ...ɔ u...ɔ ʊ...ɔ  
               æ...ɔ ɛ...ɔ ə...ɔ o...ɔ ɔ...ɔ

The researcher used V<sub>1</sub> and V<sub>2</sub> that mean that the first vowels is the vowel appearing in V<sub>1</sub> in vertical and V<sub>2</sub> mean second vowel in horizontal. For example in first column include the vocalic sequences beginning with ɑ in V<sub>1</sub> and next row the vowel appearing in V<sub>2</sub>.

### 5.2.2.1.1.3 Determining the vocalic patterns in Masbagik bi-syllabic verb roots

The researcher found how many vowels sequences in Masbagik bi-syllabic verb roots and how many were not. The researcher presented one hundred twenty one types of vowels sequences those are possible give the eleven vowels in (5.2.2.1.1.2).

The next step of the analysis was to determine which vocalic sequences ɲəno-ɲəne dialect actually. To determine whether Masbagik had a particular vocalic sequence, the researcher saw at the data (5.2.2.1.1.1) and the researcher explained them. The researcher took an example kuræʔ and lətuʔ in (5.2.2.1.1.1). The word kuræʔ ‘scabies’ showed the vocalic sequence [u...æ] while lətuʔ

“blister” showed the vocalic sequence [ə...ʊ]. Two examples showed that [u...æ] and [ə...ʊ] were attested as Masbagik that had bi-syllabic verb roots and this vocalic sequences.

To know the result from this data, the researcher decided which vocalic sequences and to deduce from this data of example which ones were not attested.

The researcher showed at the 121 logically possible types of vowels sequences in (5.2.2.1.1.2) and look which could be example and could not. The researcher had started from the logical possible vocalic sequences with listen and used both examining the data in (5.2.2.1.1.1) and doing record the result.

The researcher listed the eleven vocalic sequences beginning with “a” in V<sub>1</sub> showing in logically possible. This means that the researcher started with vowel sequence [a...a] and examine all of the data logically possible and next some vocalic sequences.

**5.2.2.1.1.4 Attested and unattested bi-syllabic verbal roots in Masbagik**

a...a	***
Λ...a	***
a...Λ	ja :rΛ n
Λ...Λ	tΛ ηkΛ ?
a...i	***
Λ...i	***
a...I	***
Λ...I	mΛ nci η
a...u	***
Λ...u	***
a...ʊ	ma nʊ k
Λ...ʊ	***

a...ε	ba gε ?
Λ...ε	***
a...æ	ta æk
Λ...æ	tΛ ηgæɪ
a...ə	a ηən
Λ...ə	tΛ mpəɪ
a...o	la lo
Λ...o	Λ mpoʔ
a...ɔ	ka ɔ s
Λ...ɔ	tΛ ηkɔ η
i...a	***
I...a	***
i...Λ	irΛ ?
I...Λ	si ηgΛ ?
i...i	iti
I...i	ηi mpi
i...I	isi ?
I...I	***
i...u	milu
I...u	***
i...ʊ	iru p
I...ʊ	I mpʊ s
i...æ	inæ
I...æ	***
i...ε	ine
I...ε	I ntε
i...ə	pinəη
I...ə	***
i...o	ino
I...o	ni ndoʔ
i...ɔ	ciɔ k
I...ɔ	***

u...ɑ	***	ε ...υ	***
υ ...ɑ	***	æ...υ	æpυ ?
u...Λ	ulΛ ?	ε ...ε	ε pε
υ ...Λ	tu mpΛ h	æ...ε	***
u...i	kupi	ε ...æ	ε læs
υ ...i	***	æ...æ	kæyæ
u...I	kulI ?	ε ...ə	kε rəη
υ ...I	pυ nti ?	æ...ə	***
u...u	uru	ε ...o	bε lo
υ ...u	***	æ...o	***
u...υ	jujυ ?	ε ...ɔ	pε lɔ k
υ ...υ	ju ksυ r	æ...ɔ	***
u... ε	ulε ?	ə...ɑ	pə ra sΛ ?
υ ... ε	***	ə...Λ	kəΛ ?
u... æ	ulæk	ə...i	sədi
υ ...æ	***	ə...I	sədi ?
u...ə	bulət	ə...u	tətu
υ ...ə	***	ə...υ	lətu ?
u...o	uloh	ə...ε	ləηε
υ ...o	pυ ndokΛ n	ə...æ	ləηæ
u...ɔ	***	ə...ə	ə nə m
υ ...ɔ	***	ə...o	sədoh
ε ...ɑ	***	ə...ɔ	gətɔ k
æ...ɑ	***	o...ɑ	***
ε ...Λ	ε lΛ ?	ɔ ...ɑ	***
æ...Λ	***	o...Λ	opΛ k-opΛ k
ε ...i	***	ɔ ...Λ	nɔ wΛ ?
æ...i	dæki	o...i	***
ε ...I	lε pi s	ɔ ...i	***
æ...I	æi ?		
ε ...u	***		
æ...u	æwu-æwu		

o...I	***
ɔ ...I	***
o...u	***
ɔ ...u	***
o...ʊ	***
ɔ ...ʊ	***
o...æ	dolæk
ɔ ...æ	sɔ wæk
o...ɛ	osɛ ʔ
ɔ ...ɛ	***
o...ə	oŋ ət
ɔ ...ə	tɔ ŋjə k
o...o	lonto
ɔ ...o	***
o...ɔ	***
ɔ ...ɔ	ɔ pɔ ŋ

The result of the data above was drawn from (5.2.2.1.1.4) that the attested and unattested vocalic sequences in bi-syllabic verb roots in ŋəno-ŋəne dialect, first there were some restrictions on the co-occurrence of vowel and the data had symbol (\*) meaning unattested in ŋəno-ŋəne dialect.

The eleven vowels occurred in the first sequence at first vowel (V<sub>1</sub>) and second vowel (V<sub>2</sub>) had some unattested form when they were combined with other vowels such as vowel *a* (a...a, a...i, a...I, a...u), *ʌ* (ʌ...a, ʌ...i, ʌ...u, ʌ...ʊ, ʌ...ɛ), *i* (i...a), *I* (I...a, I...I, I...u, I...æ, I...ə, I...ɔ), *u* (u...a, u...ɔ), *ʊ* (ʊ...a, ʊ...i, ʊ...u, ʊ...ɛ, ʊ...æ, ʊ...ə, ʊ...ɔ), *ɛ* (ɛ...a, ɛ...i, ɛ...u, ɛ...ʊ), *æ* (æ...a, æ...ʌ, æ...ɛ, æ...ə, æ...o, æ...ɔ), *o* (o...a, o...i, o...I, o...u, o...ʊ, o...ɔ), *ɔ* (ɔ...a, ɔ...i, ɔ...I, ɔ...u, ɔ...ʊ, ɔ...ɛ, ɔ...o).

The researcher found that there were many vowels sequences unattested when they were combined with other vowels. For more clearly in (5.2.2.1.1.4) this data the researcher did bold and crossed out the unattested ones on vocalic sequence and all other vocalic sequences are attested.

### 5.2.2.1.1.5 Attested and unattested bi-syllabic verbal roots in Masbagik language

<b>*a ...a</b>	<b>*ʌ ...a</b>	<b>*i...a</b>	<b>*I ...a</b>
<b>*u...a</b>	<b>*ʊ ...a</b>	<b>*ɛ ...a</b>	<b>*æ...a</b>
ə...a	<b>*o...a</b>	<b>*ɔ ...a</b>	
a ...ʌ	ʌ ...ʌ	i...ʌ	I ...ʌ
u...ʌ	ʊ ...ʌ	ɛ...ʌ	æ...ʌ
ə...ʌ	<b>*o...ʌ</b>	<b>*ɔ ...ʌ</b>	
ɛ ...ʌ	<b>*æ...ʌ</b>		
<b>*a ...i</b>	<b>*ʌ ...i</b>	<b>i...i</b>	<b>I ...i</b>
<b>*u...i</b>	<b>*ʊ ...i</b>	<b>*ɛ ...i</b>	<b>*æ...i</b>
ə...i	<b>*o...i</b>	<b>*ɔ ...i</b>	
<b>*a ...I</b>	<b>ʌ ...I</b>	<b>i...I</b>	<b>*I ...I</b>
u...I	ʊ ...I	ɛ ...I	æ...I
ə...I	<b>*o...I</b>	<b>*ɔ ...I</b>	
<b>*a ...u</b>	<b>*ʌ ...u</b>	<b>i...u</b>	<b>*I ...u</b>
<b>*u...u</b>	<b>*ʊ ...u</b>	<b>*ɛ ...u</b>	<b>*æ...u</b>
ə...u	<b>*o...u</b>	<b>*ɔ ...u</b>	
a ...ʊ	<b>*ʌ ...ʊ</b>	i...ʊ	I ...ʊ
u...ʊ	<b>*ɛ ...ʊ</b>	æ...ʊ	ə...ʊ
ə...ʊ	<b>*o...ʊ</b>	<b>*ɔ ...ʊ</b>	
a ...ɛ	<b>*ʌ ...ɛ</b>	i...ɛ	I ...ɛ
u...ɛ	<b>*ʊ ...ɛ</b>	<b>*ɛ ...ɛ</b>	<b>*æ...ɛ</b>
ə...ɛ	<b>*o...ɛ</b>	<b>*ɔ ...ɛ</b>	
a ...æ	ʌ ...æ	i...æ	<b>*I ...æ</b>
u...æ	<b>*ʊ ...æ</b>	ɛ...æ	æ...æ
ə...æ	<b>*o...æ</b>	<b>*ɔ ...æ</b>	
a ...ə	ʌ ...ə	i...ə	<b>*I ...ə</b>
u...ə	<b>*ʊ ...ə</b>	ɛ...ə	<b>*æ...ə</b>
ə...ə	<b>*o...ə</b>	<b>*ɔ ...ə</b>	
a ...o	ʌ ...o	i...o	I ...o
u...o	<b>*ʊ ...o</b>	ə...o	<b>*ɔ ...o</b>
ə...o	<b>*o...o</b>	<b>*ɔ ...o</b>	

a ...ɔ    ʌ ...ɔ    i...ɔ    \*ɪ ...ɔ    \*u...ɔ  
 \*ʊ ...ɔ    ε ...ɔ    \*æ...ɔ    ə...ɔ    \*o...ɔ  
           ɔ ...ɔ

The unattested vowel sequences in ηəno-ηəne dialect that the researcher used the data (5.2.2.1.1.5) were marked by asterisk symbol. From these data the researcher found that there was vowel ʌ ...ε short mid central vowel which did not appear together by mid front vowel ʌ in V<sub>1</sub> but these data also demonstrated that vowel ε co-occur with vowel ʌ in V<sub>1</sub>.

According to Peng, 2013 Linguists analyzed speech sound by looking at their articulatory, acoustic, and perceptual properties in a branch of linguistics known as phonetics. One branch of phonetics was concerned with the production or articulation of sounds, that is, their articulatory characteristic. This branch of linguistic was concerned with such questions as how sounds were produced, what parts of human speech organs were involved in the production of speech sounds, where the articulators were in the production of different speech sounds, etc. with respect to vowels, there was a general agreement among linguists that the relative position of the tongue and the rounding of the lips determined the quality of vowels we perceived.

The researcher put tongue position shape on the next page on analysis took from O'grady & Dobrovolsky book.

### 5.2.2.1.1 Analyze

*Articulatory grid of vowels present by O'grady & Dobrovolsky. St.Martin (1989).*

(11) This table illustrates the vowel present (UR=unrounded) and (R= rounded) on appropriate ηəno-ηəne dialect tongue positions.

	Front	central	back
	UR R	UR R	UR R
High	i		u tense
	ɪ		
u lax			
Mid		ə	o tense
	ε	ʌ	
ɔ lax			
Low	æ		ɑ tense

### The descriptions of vowels size according Mahon.MC and Baker.Ann(2002)

Long vowels: i:, u:, ɔ:, ɑ:, and ɜ:  
 Short vowels: ɪ, ʊ, a, ə, ʌ and æ

### 5.2.2.1.2.2 The descriptions of articulatory grid vowels by use Masbagik people

- Vowel /ɑ/ : the features are [long back low unrounded].
- Vowel/ʌ / : the features are[short central mid unrounded].
- Vowel /i/ : the features are [long front high unrounded].
- Vowel /ɪ / : the features are [short front high unrounded].
- Vowel /u/ : the features are [long back high rounded].
- Vowel /ʊ / : the features are [short back high rounded].
- Vowel /ε / : the features are [short front mid unrounded].
- Vowel /æ/ : the features are [long front low unrounded].

- i. Vowel /ə/: the features are [long central mid unrounded].
- j. Vowel /o/: the features are [short back mid rounded].
- k. Vowel /ɔ /: the features are [long back mid rounded].

### 5.2.2.1.3 Conclusion

This chapter introduces the phonological of distribution on Sasak language exactly ηəno-ηəne dialect that every vowel was used by Masbagik people that had restriction when they were combined with other vowels.

The purpose of use logical possibility is that this refer to the concepts the free following certain condition (Peng: 2013).

The researcher found that there were some vowels having same features that can not co-occur in one word such as vowels (ɑ ...ɑ ) central low, (ɰ ...ɑ ) (ɪ ...ɪ ) front high, (ʊ ...u) back high, (o...ɔ ) back mid. Vowel ɑ did not appear in second vowel (V<sub>2</sub>) on all positions followed by vowels although same feature can be seen on vowels sequence ɑ ...ɑ , ɑ ...i, ɑ ...ɪ and ɑ ...u low back vowel that did not appear together by long high front and high back vowel.

In ηəno-ηəne dialect, variant short vowel ɰ did not appear when it was combined with mid central-low back(ɰ ... ɑ), mid central-high front(ɰ ... i), mid central-high back (ɰ ...u) and (ɰ ...ʊ), mid central-mid front (ɰ ...ε ) articulatory.

Vowel ɰ ...ε short mid central vowels did not appear together by mid front vowel ɰ in V<sub>1</sub> but these data also demonstrate those vowels ε ,ə and æ distributions co-occurrence with vowel ɰ when they in V<sub>1</sub> positions.

Vowel u (high back vowel) cannot co-occur with vowel ɑ (low back vowel) and vowel o (mid back vowel).Vowel u and ʊ which has the same features—high back cannot appear with vowel o (mid back), as well as vowel o cannot appear with vowel u.

Vowel ε cannot be followed by some vowels that are ε ...ɑ (midfront -back low), ε ...i(front mid-front high), ε ...u and ε ...ʊ (front high-back high). Vowels ε ...i, ε ...u, long mid front vowel cannot appear together by high vowel.

Vowel æ does not appear by vowels æ...ɑ front low-back low, æ...ɰ front low-back low, æ...ε front low-front mid, æ...ə front low-central mid, æ...ofront low-back mid, æ...ɔ front low-back mid. Long front low vowel (æ) did not meet with long back low (ɑ ) and short mid central (ɰ ), short mid front (ε ), long mid central (ə), long mid back vowel (o) and short mid back vowel (ɔ ).

Vowel ə...ə long mid central first vowel (V<sub>1</sub>) can appear with all vowels.

Vowel o does not appear by vowels o...ɑ back mid-back low, o...i back mid-front high, o...ɪ back mid-front high, o...u back mid-back high, o...ʊ back mid-back high and (o...ɔ ) back mid-back mid. Vowel o and ɔ (mid back vowel) cannot appear with vowel i and ɪ (high front vowel) and vowel u and ʊ (mid back vowel).

The last vowel ɔ does not appear by vowels ɔ ...ɑ back mid-back low, ɔ ...i mid back-front high, ɔ ...ɪ mid back-front high, ɔ ...u mid back-back high, ɔ ...ʊ mid back-back high, ɔ ...ε mid back-mid front and ɔ ...o mid back- mid back. The result of the conclusions is from 121 vowels sequences the

getting 48 unattested sequences although they have some same features on ηəno-ηəne dialect.

It is hard to have a specific conclusion because the data was not easy for specification and could not set vowel prediction in ηəno-ηəne dialect.

### 5.2.2.2 Co-occurring sounds

#### Introduction

In this session the researcher introduced vowel and syllable distribution Masbagik's use. The researcher explained about vowel's variants such as vowel's 'a' variant is 'ʌ', 'i' has variant 'ɪ', 'u' has variant 'ʊ', and 'ε' vowel has two variants unlike other vowel which has one variant such as 'æ and ə' and the last is 'i' vowel which has variant 'ɪ'.

In these session the researcher found that vowel variant had short utterance, the goals of this session was to show those vowel distribution that could be a phoneme and allophone. For getting identification of the result, the researcher used word and syllable distribution.

First, the researcher used word distribution for getting a phoneme and an allophone, it was used for vowel identification in a word what they could stand alone or follow by a consonant.

Second, the researcher used syllable distribution for getting a evidence from word's distribution result.

#### 1. The puzzle

*Data illustrating the distributions of vowels a and ʌ*

la :wʌ η                      la ε ?  
 ra ɔ s                      ʌ ηkʌ ?  
 a o?

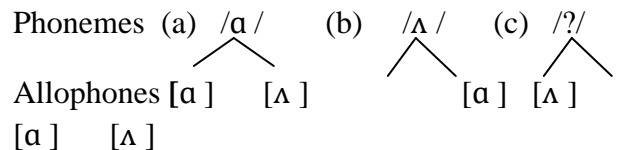
bʌ ηkət                      mə :mʌ ?                      mə :ηʌ n  
 sa :sʌ k    pʌ :ləŋ

The researcher analyzed by using sorting data, the researcher has three possibilities about relationships between two vowels:

- a. They come from the same vowel a
- b. They come from phoneme ʌ
- c. They come from different phonemes

The researcher's description for all of diagrams is indicated in each vowels whether vowels come from one phoneme, two phonemes or outside. It means that there are three possibilities appearing in these cases that first all vowels are phonemes coming from one phoneme or outside, second all of variants are phonemes from each vowel and outside and third symbol question (?) is phoneme come from outside.

*Relationship of a phoneme to its allophones*



The meaning of question symbol (?) is to know what this vowel come from different phoneme or not, or maybe there is no phoneme until it is giving exception so that it can be attested data. And now the researcher went to step and started analyzing the pattern.




**5.2.2.2.1 Vowel a and A distribution**

**2. Analyze**

Determining the distribution of vowel


According to Peng (2013), there are five steps in determining sounds distribution that are (a) sorting data according to the sound or sounds whose distributions are being investigated; (b) listing the environments which these sounds are found; (c) eliminating the redundant environments; (d) comparing the environments to determine whether they are unique to particular sounds; and (e) inferring the unattested patterns that the researcher did not use because it determined different environment from a vowel.

The researcher presented a puzzle involving the sasak masbagik vowel in these session. The first, the researcher involved the distribution of vowel in word initial, medial and midal position and the second, it concerned the distribution of Sasak Masbagik's vowel with immediately following consonant.

 *Sorting the data*


<b>a</b>	<b>gloss</b>	<b>A</b>	<b>gloss</b>
ra :ɔ s	speak	A ŋkA ?	
	then		
a :o?	yes	bA ŋkət	rice field
la :ε ?	previously	sa sA k	sasak island
la :wA ŋ	door	ma ŋA n	
	eating		
pa :ləŋ	unconscious	ma mA ?	areca nut
	eat		

The researcher showed this puzzle highlight the fact that vowel distribution has restriction in their distribution. This data reveal where that vowel distribution can or cannot appear in a word.

 *Listing the environments*

<b>a</b>	<b>A</b>
r...ɔ	#...ŋ
#...o	b...ŋ
l...ε	s...k
l...w	ŋ...n
p...l	m...?

After steps above the researcher found the fact that vowel's restriction on their distribution but in these case they overlap on their distributions. It means that their distribution appear position similarity.

 *Eliminating the redundant environments*

<b>a</b>		<b>A</b>	
pre	post	pre	post
r	ɔ	#	ŋ
#	o	b	k
l	ε	s	n
p	w	ŋ	?
s	l	m	

The purpose of these steps was to show significant environment from listing the environment describes. The researcher found those distribution vowel a and it's variant same distribution because they appear on word initial and medial positions.

**✚ Comparing the environments**

The researcher compared the environment with following the fact that was not all logically possibility attested because one sequence on these vowel has restriction on their distribution. Both vowels found that they overlap on their distribution. It means that it is distribution similarity. And from data above the researcher found also vowel ‘ɑ’ follow (r, l, p, s, ɔ, o, ε, w) and vowel ʌ follow (b, s, ŋ, m, k, n, ʔ, ).

The researcher made a result with change diagram before with diagram result appropriate.



The contrastive environment becomes result in this session because have same environment that can appear in initial and medial and than they call a phonemes.

**3. Conclusion**

The contrastive environment became result in these session because it had same environment.

Next, the researcher introduced syllable distribution on vowel ‘ɑ’, the purpose of distribution was to know whether or not their distribution changed when it appeared on a syllable.

**5.2.2.2 Syllable distribution**

In this session the researcher used syllable distribution as a comparison for getting differences result. Syllable is a unit of linguistic structure that consists of a vowel and

any consonants that are associated with it.(O’grady, Dobrovolsky, and Aronoff)

Before, the researcher used vowel distribution for knowing what each vowel to be a phoneme or an allophone. The vowel distribution was not an evidence yet because it was not explained specifically until the next distribution used syllable distribution.

The purpose of next distribution was that the researcher wanted to get real evidence on these vowel. The researcher used same the data so that it was easy to know the difference.

**2. Analyze**

Determining the distribution of vowel

The researcher was to analyze through sorting the data which the data separated point direct as a symbol from used syllable.

**✚ Sorting the data**

<b>ɑ</b>	<b>gloss</b>	<b>ʌ</b>	<b>gloss</b>
ɑ .oʔ	yes rice field	bʌ ŋ.kət	
lɑ ε ʔ	previously island name	sɑ .sʌ k	
rɑ .ɔ s	speak	mɑ .ŋʌ n	eating
lɑ .wʌ ŋ	door areca nut eat	mɑ .mʌ ʔ	
pɑ .ləŋ	conscious then	ʌ ŋ.kʌ ʔ	

**✚ Comparing the environments**

The comparison of the environment of vowel ‘ɑ’ and ‘ʌ’ appearing, the researcher looked at the sorting data and the researcher found that syllable distribution show different

result with vowel distribution which it got both vowels that had differences. Vowel ‘a’ appear on first syllable and its variant appear on two syllables position: first syllable and second syllable.

There are two examples of the researcher such as ‘a .ɔ ʔ’ word which can be seen from vowel a appearing as first syllable on a word, syllables symbol sign by pointed as separation between syllable with other syllable and second example is ‘ʌ η.kʌ ʔ’ word which has two syllables such as ʌ η and kʌ ʔ in one word, the researcher gave an evidence that variant vowel ‘ʌ’ appear on first and second syllable. Other evidence those variant vowel (ʌ) can appear on first and second syllable is always followed by consonant while vowel ‘a’ can not be followed by consonant from a word despite a syllable.

### 5.2.2.2.3 Vowel i and ɪ distribution

The researcher presented the data of vowel ‘i’ and ‘ɪ’ which it used two distribution that are vowel and syllable distribution. Next, the researcher prepared one puzzle for vowel and syllable diatribution.

#### 1. The puzzle

*Data illustrating the distributions of vowels i and ɪ*

idʌ p	bisoʔ	læŋɪ t
sidoʔ	sidu t	
sisoʔ	ini ʔ	isi ʔ
æwɪ s	təkɪ ʔ	

The researcher analyzed by sorting the data and listing the environment of the two vowels. Before analyzing the data above, the

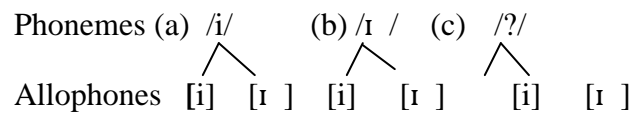
researcher found there were three possibilities about the relationship between the two vowels:

- a. They come from the same of vowel i
- b. They come from phoneme ɪ
- c. They come from different phoneme

The researcher defined allophones as the variant of the same phoneme. The researcher’s assumption is that vowel ‘i’ is phoneme because it’s wider distribution than ‘ɪ’ is allophone.

Next, the purpose of this diagram is an evidence what both vowels come from same phoneme or another phoneme until the researcher use question symbol ‘?’ as an evidence that phoneme that phoneme come from outside.

*Relationship of a phoneme to its allophones*



If such sound are not contrastive that means that they cannot be a phonemes. Common allophones as the variants of the same phoneme means that it is different pronunciation of the same underlying. In order to two or more sounds to be classified as allophone, first it must be complementary distribution and second it must be same phonetic.

#### 2. Analyze

The researcher used sorting the data as first step on analyzing the data. Sorting the data is very important because to know vowel distribution on vowel’s environment. The

researcher made two groups include vowel ‘i’ in one column and vowel ‘ɪ’ with different column.

Determining the distribution of vowel

**+** *Sorting the data*

<b>i</b>	<b>gloss</b>	<b>ɪ</b>	<b>gloss</b>
idʌ p	feeling	æwɪ s	cut grass
bisoʔ	wash	təkɪ ʔ	pinch
sidoʔ	kiss	læŋɪ t	sky
sidʊ t	spoon	isi ʔ	use
sisoʔ	snail	ini ʔ	can

**+** *Listing the environments*

Listing environment refers to immediately preceding, the researcher started by the immediately adjacent environment. The researcher started from ‘idʌ p’ word which vowel ‘i’ appearing in word initial position. Mark with sign (#) indicated with the word boundary while ‘...’ describe from location. For existence above, it is (#) indicating vowel appearing in word initial position.

<b>i</b>	<b>ɪ</b>
#	w...s
b...#	k...ʔ
s...#	ŋ...t
s...#	s...ʔ
s...#	n...ʔ

The researcher did not put same environments because this session eliminated same environments.

**+** *Eliminating the redundant environments*

The purpose of this section is for easy identification of vowel distribution with eliminating some of follower similarity.

<b>i</b>		<b>ɪ</b>	
pre	post	pre	post
#	#	w	s
b		k	ʔ
s		ŋ	t
		s	
		n	

From the result of the data the researcher found that distribution vowel ‘i’ was large and could appear on all positions such as word initial, medial and final position than vowel ‘ɪ’ had limited distribution that are only initial and medial positions and did not appear in word final position.

The researcher did not show same environment but it selected through a representative from some data until it could be specific data. And the researcher entering the data in next session was comparing the environment.

**+** *Comparing the environments*

Next step is vowel comparing the environment, the researcher found that vowel ‘i’ was phoneme because wider distribution appear on all positions while it’s variant was an allophone because limited distribution and could appear only on initial and medial positions. Next, the researcher showed different diagram before showing that vowel ‘i’ was a

phoneme from its variant and vowel 'ɪ' as an allophoneme.

2. Diagram result showing phoneme



The fact with diagram showing vertical line means that first vowel as a phoneme and second vowel as an allophone.

3. Conclusion

Distribution of vowel 'i' can appear on all positions until it can be a phoneme also and vowel 'ɪ' having limited distribution which appear on medial position until this vowel as allophone from vowel 'i'.

5.2.2.2.4 Syllable distribution

Usually, all syllables containing a long vowel and ending in a vowel-consonant sequence must be stressed.

2. Analyze

Determining the distribution of vowel

The researcher presenting the data with syllable form which it uses point as a separate between first and second syllable.

✚ *Sorting the data*

i	gloss	ɪ
	<b>gloss</b>	
i.dʌp	feeling	
æ.wɪs	cut grass	
bi.soʔ	wash	
tə.kɪʔ	pinch	

si.doʔ	kiss
læ.ŋɪt	sky
si.dʊt	spoon
i.sɪʔ	use
si.soʔ	snail
i.nɪʔ	can

From the sorting data above the researcher found the a fact that vowel 'i' always followed by open syllable and can be mono syllable or second syllable. While vowel 'ɪ' followed by close syllable and consonant and than it does not appear as mono syllable.

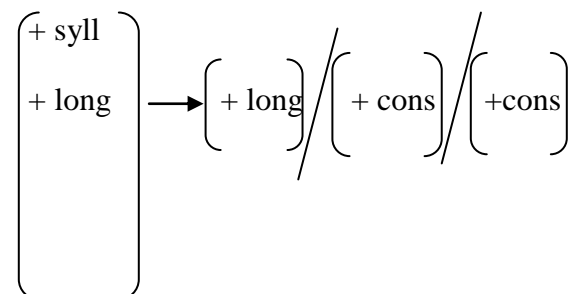
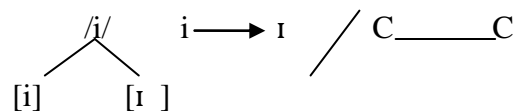
The finding was that vowel 'i' could appear on first and second syllable while its variant appearing on second syllable only and follow by a consonant.

✚ *Comparing the environments*

The data above vowel 'i' is wide distribution than vowel ɪ. Vowel 'i' can appear on all positions influenced by open syllable while vowel 'ɪ' and don't have character to be a phoneme because it has limited distribution. The influence is close syllable and cannot be monosyllable such as vowel 'i' because it is always followed by consonant.

The researcher has some assumptions about both vowels by using rule for getting an answer.

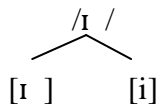
Assumption I : 'i' is a phoneme



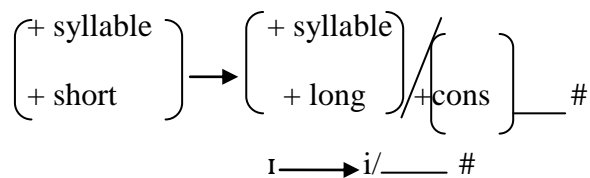
- + syll
- + high
- + front

This assumption showed that vowel ‘i’ as a phoneme. Vowel ‘i’ would change to be vowel ‘ɪ’ when followed by a consonant.

Assumption II : ‘ɪ’ is a phoneme



‘ɪ’ → i / C \_\_\_\_\_ #



Second, this assumption showed that vowel ‘ɪ’ is a phoneme which this vowel changes to be vowel ‘i’ when it is not followed by consonant. Hash tag (#) symbol means that a consonant appear before vowel ‘i’ and does not follow by a consonant in behind.

From both assumptions the researcher took a conclusion that vowels become complementary distribution which they depend on each distribution.

### 3. Conclusion

After we saw the result above, the fact showed that syllable distribution occur a different result which on vowel ‘i’ the researcher found this vowel appearing on initial and final positions, while vowel ‘ɪ’ appear on word initial and medial position. The different result with vowel distribution result is vowel ‘i’ appearing on all positions while its

variant appear on word initial and medial position which this vowel is always followed by a consonant.

### 5.2.2.2.5 Vowel u and ʊ distribution

The researcher presented a data that is vowel ‘u’ and its variant on third sequence.

#### 1. The puzzle

*Data illustrating the distributions of vowels u and ʊ in a word*

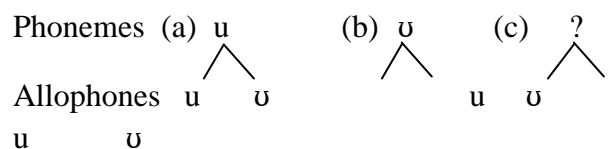
nʊ ndok	jurɛ	pʊ ndokl n	gutu
surʊ t	pusʊ t	jæɡʊ r	səʊ t
jʊ ksʊ r		uləʔ	

The researcher analyze by using sorting data, list of environment of the two vowels. Before analyzing the data above the researcher’s three possibilities about relationships between two vowels:

- a. They come from phoneme u
- b. They come from phoneme ʊ
- c. They come from different phonemes

The researcher back to explain about third diagrams use. In this vowel the researcher found there are two vowel ‘u’ use which both in assumption as a phoneme and an allophone.

### *Relationship of a phoneme to its allophones*



The researcher’s assumption that (a) vowel ‘u’ as a phoneme until the researcher make a diagram showing direction in each

vowel. And it's variant (b) as an allophone. While for (c) use question symbol because the researcher's assumption that phoneme come from outside.

## 2. Analyze

Determining the distribution of vowel

### ✚ *Sorting the data*

<b>u</b>	<b>gloss</b>	<b>ʊ</b>	<b>gloss</b>
ulɛ ?	go home	nʊ ndok	bent down
surʊ t	decline ramming	jʊ ksu r	
gutu	louse	jægu r	fist
pusʊ t	twist	səru t	carpentry
jure	roof of rice fields	pʊ ndokΛ n	restriction

### ✚ *Listing the environments*

u	ʊ
#	n...n
s...#	j...k
g...#	g...r
p...#	r...t
j...#	p...n

### ✚ *Eliminating the redundant environments*

<b>u</b>		<b>ʊ</b>	
pre	post	pre	post
#	#	n	n
s		j	k

g	g	r
p	r	t
j	p	n

From the resulted above researcher found that vowel "u" has wider distribution and can appear on all positions such as word initial, medial and final position while vowel "ʊ" limited distribution is medial position only and not appear in word initial and final positions.

Usually on eliminating the environment the researcher don't put all vowel's environments but the researcher selecting through a representative method from some data until can be specific data. For clear these explain the researcher entering the data in next session on part comparing the environment.

### ✚ *Comparing the environments*

The researcher's comparing the environment from both vowels and found a fact those vowel 'u' appear on all positions such word initial, medial and final positions. While it's variant has limited distribution and appear on two positions are medial and final position.

### *Diagram of phoneme and allophone*



## 3. Conclusion

The conclusion of the data is vowel "u" wider distribution than vowel "ʊ". It can appear on all positions and called a phoneme. While vowel "ʊ" is an allophone because having limited distribution and as complementary distribution such completing phoneme and haven't minimal pairs in every

words because vowel ‘ʊ’ always followed with a consonant until the researcher classified to short vowel.

### 5.2.2.2.6 Syllable distribution

Next section the researcher introducing a distribution through a syllable distribution. Syllable distribution different with vowel distribution because this section the researcher analyzing the data with look syllable’s appear and syllable’s sum on a word.

Determining the distribution of vowel

#### ✚ *Sorting the data*

u	gloss	ʊ	gloss
u.lɛ ?	go home order	su.ru ?	
su.ru t	decline ramming	jʊ k.su r	
gu.tu	louse	jæ.gu r	fist
pu.su t	twist	sə.ru t	carpentry
ju.rɛ	roof between rice fields	pʊ n.dokʌ n	dike

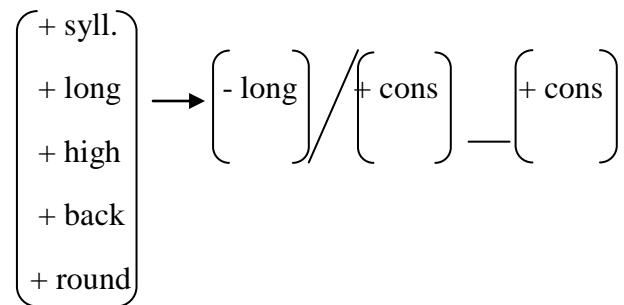
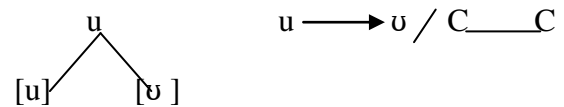
For vowel ‘u’ distribution the researcher found same result with vowel ‘i’ those they can appear on first and second syllable while their variants can appear on second syllable only.

#### ✚ *Comparing the environment*

The researcher use next step is comparing the environment and get the resulted those vowels are ‘u’ can appear on all positions and vowel ‘ʊ’ can second syllable only and always followed by consonants on first or last word.

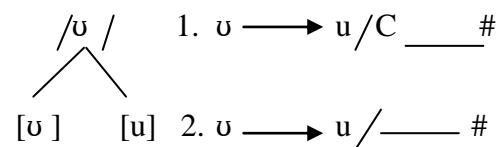
The researcher showing vowel’s distribution through two assumptions are first assumption saying that vowel ‘u’ phoneme and second assumption vowel ‘ʊ’ phoneme. As an evidence from both assumptions above the researcher provide it these under.

Assumptions I : u as a phoneme



Vowel ‘u’ or long vowel would changes when it followed by consonant and be short vowel ‘ʊ’.

Assumption II : ʊ is a phoneme



Second assumption, the assumption in (1) showing that short vowel (ʊ) would change be long vowel (u) when consonant before. (2) showing that short vowel (ʊ) would change be long vowel (u) when there is no follow consonant.

### 3. Conclusion



The conclusion of this session is vowel ‘u’ is a phoneme because has wide distributions it can appear on two positions such as first and second syllables. While, vowel ‘ʊ’ has limited distribution because it just appear second syllable and always follow by consonant in last word until it is an allophone because can completing vowel’s ‘u’ environment.

In vowel distribution before the researcher found that vowel ‘u’ having wider distribution same like this resulted while vowel ‘ʊ’ the researcher found limited distribution.

Next, the researcher present a puzzle ηəno-ηəne dialect and some data illustrated of vowel ε distribution and it variant in ηəno-ηəne dialect. From Masbagik’s vowel use only this vowel has two variants are vowel ‘ε and ə’ variants.

### 5.2.2.2.7 Vowel ε, ə, and æ distribution

#### 1. The puzzle

*Data illustrating the distribution in a word*

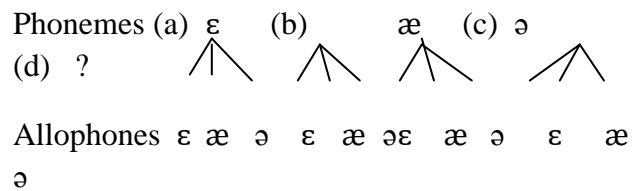
cəɫ η	kəɫ ?	məɫ k
lɛ pɫ η	ɑ tɛ	
gəntɪ ?	ɛ lɫ ?	
mɑ tɛ	təlæ	æɪ ?
ruæ	ændəŋ	bɑ lɛ
ænu ?	dəŋɫ n	

The researcher analyzing the data above by sorting the data, list of environments, eliminating the redundant environment, comparing the environment on the three vowels. Before analyzing the data above the researcher have four possibilities about relationships between three vowels:

- They come from the same of vowel ε
- They come from phoneme æ
- They come from phoneme ə
- They come from outside

Usually, the researcher presenting diagram relationship of a phoneme and allophone. Means that the researcher dont know which as a phoneme and an allophone.

*Relationship of a phoneme to its allophones*



The researcher’s assumption for third vowels are: first, vowel ‘ε’ is a phoneme for vowel ‘æ and ə’. Second, vowel ‘æ’ is a phoneme for vowel ‘ε and ə’. And the last vowel ‘ə’ is a phoneme from vowel ‘ε and æ’. Exception symbol is question symbol (?) means phoneme come from outside.

#### 2. Analyze

Determining the distribution of vowel

 *Sorting the data*

ε	gloss	æ	gloss	ə	gloss
lɛ pɫ η	frog	təlæ	naughty	cəɫ η	dishonest
ɑ tɛ	heart	æɪ ?	water	kəɫ ?	cook
ɛ lɫ ?	tongue	ruæ	form	məɫ k	greedy
mɑ tɛ	dead	ænu ?	belong	gəntɪ ?	change

baɪ house    ændæŋ request    dɛŋΔ n people

✚ *Listing the environments*

ε	æ	ə
l...p	l...#	c...l
t...#	#...ɪ	k...l
#...l	u...#	m...l
t...#	#...n	g...n
l...#	#...n	d...ŋ

✚ *Eliminating the redundant environments*

ε		æ		ə	
Pre	Post	Pre	Post	Pre	Post
l	p	l	#	c	l
t	#	#	ɪ	k	n
#	l	u	n	m	ŋ

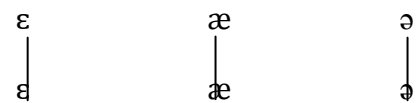
After the researcher include a lot of identical environment the researcher to see clearly where three vowels are allow and has remove the repeat environment. After the redundant environments are eliminate the redundant environment which this session has doing eliminate some vowel following Masbagik word for example when a vowel has appear on initial position and next position appear same vowel could back not wrote because has representative by before vowel.

✚ *Comparing the environment*

The data above showing those vowels ‘ε and æ’ appear on all positions are word initial, medial and final positions. They are

phonemes on their distribution. Then, ‘ə’ has limited distribution appear on word initial and medial positions although this vowel limited distribution but it called phoneme because it’s environment cannot complementary another vowels environment means this vowel can not be complementary on vowels distribution because their environment has completed distribution. Next, the researcher make three diagrams for these result.

3. The diagram result of phoneme



The third diagrams above showing those they are different phonemes. If we look from the environment each vowels appear from same environment.

3. Conclusion

From the result before the researcher always make vowel has wider distribution is phoneme while limited distribution is allophone. But in this case very different result because there is one vowel has limited distribution but they are phonemes on it’s distribution. This occur because another vowel has completed distribution until didnt need vowel’s ‘ə’ environment. And now, the fact from third vowels those they are phonemes on their each distribution. They come from different phoneme and having each positions.

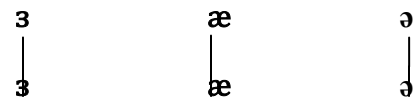


Diagram above be an evidence that third vowels are phonemes on their environment.

Next the researcher using syllable distribution for getting different from distribution before.

### 5.2.2.2.8 Syllable distribution

#### 2. Analyze

Determining the distribution of vowel

#### ✚ *Sorting the data*

ε	gloss	æ	gloss	ə	gloss
lɛ .pʌ ŋ	frog	tə.læ	naughty		
cə.lʌ ŋ	dishonest				
ɑ .tɛ	heart	æ.i ?	water	kə.lʌ ?	
	water	cook			
ε .lʌ ?	tongue	ru.æ form	mə.lʌ k		
	greedy				
mɑ .tɛ	dead	æ.nʊ ?	belong	gən.tɪ ?	
	change				
bɑ .lɛ	house	æn.dæŋ	request	də.ŋʌ n	
	people				

For distribution on third vowels found those they can appear on first or second syllable, the researcher found also this vowel is a phoneme on their environment.

#### ✚ *Comparing the environment*

The result of eliminating environment above vowels 'ε', 'æ' and 'ə' can appear on all positions. Next the researcher comparing the environment on third vowels.

Without an assumption the researcher saying those vowels 'ε', 'æ' and 'ə' are phonemes. Because has differences distribution and they complete environment .

#### 3. Conclusion

Although without using rule in these section, the researcher's found those three vowels are phonemes because they come from different phoneme and having wider distribution. They appear on all positions and they can predictability as a phoneme from their distribution.

Before, the researcher found on first distribution above they as phoneme with wider distributions on their environment.

### 5.2.2.2.9 Vowel o and ɔ distribution

#### 1. The puzzle

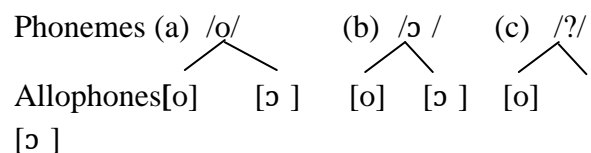
#### *Data illustrating the distribution vowels*

*o and ɔ a word*

gʌ ntɔŋ	pɔ ltot	tolɔ?	cɔ pɔ k
kəmɔ rɔ ŋ			
ɔ mbæt	ɔ jɔ t	nɪ ndɔ?	
pɪ ncɔk	sərbɔk		

Before start analyzing data above the researcher have four possibilities about relationships between two vowels are:

- They come from phoneme o
  - They come from phoneme ɔ
  - They come from other phoneme
- Relationship of a phoneme to its allophones*



#### 2. Analyze

**+** *Sorting the data*

o	<b>gloss</b>	o	<b>gloss</b>
pə ltot	pencil	tolo?	put
kəmɔ rɔ ŋ	road	gɔ ntoŋ	
	hanger		
cɔ pɔ k	lantern	nɪ ndo?	
	stay over night		
ɔ mbæt	take off	pɪ ncok	
	pin		
ɔ ɲ ɔ t	trace	sərbok	salad

**+** *Listing the environments*

<b>o</b>		<b>ɔ</b>	
<u>Pre</u>	<u>post</u>	<u>pre</u>	<u>post</u>
p	l	t	#
m	r	t	ŋ
c	#	d	?
#	m	c	k
#	ɲ	b	k

**+** *Eliminating redundant*

From the resulted above the researcher found that distribution vowel o and ɔ are large more distributions because they appear. For complete this statement the researcher using eliminating the data with selecting some data so that be specific the data appearing in distribution process.

<b>ɔ</b>		<b>o</b>	
<u>pre</u>	<u>post</u>	<u>pre</u>	<u>post</u>
p	l	t	#
m	r	d	ŋ

c	#	c	?
#	m	b	k
	ɲ		

**+** *Comparing the environments*

According to the result eliminating above that vowel 'o' and 'ɔ' are phonemes because has wider distributions appearing in all positions. In Phonology's study this case mention with overlap because they appearing on same position and follower similarity.

4. The diagram of phoneme result



The changes of diagram the resulted those both vowels has each distribution without need complementary from other vowel.

3. Conclusion

The conclusion of both vowels the researcher found the fact they can be phonemes because their wider distribution appearing in word initial, medial, and final positions. They followed by open and close syllables on each distribution.


**5.2.2.2.10 Syllable distribution**

In next distribution the researcher using syllable as different distribution for verification the researcher focus on used and appear syllable in a word. Masbagik has two syllables distribution in one stem each separated by point symbol.

1. Analyze


The researcher start with sorting the data follow by comparing environment. This

method showing the data direct with point symbol as separated.

 *Sorting the data*

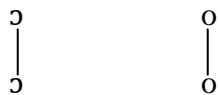
o	gloss	o	gloss
pɔ	l.tot pencil	to.loʔ	put
kə.mɔ	.rɔ ŋ road	gɔ n.tɔŋ	hanger
cɔ	.pɔ k wall lamp	nɪ n.doʔ	stay overnight
ɔ	m.bæt take off	pɪ n.cok	stick
ɔ	.ŋ ɔ t former	sər.bok	salad

Can saw those vowel ‘o’ and ‘ɔ’ can appear on first and second syllable until they call phonemes.

 *Comparing the environments*

The comparing between vowel ‘o’ and ‘ɔ’ can be a phoneme because their wider distributions. Like vowel distribution both vowels are phonemes because they overlap when they do distribution. As a result the researcher showing diagram change as a symbol those they as phonemes on their distribution.

5. The diagram of phoneme result



3. Conclusion

The conclusion of this section is both vowels has wider distribution because they can appear on all positions.

And the resulted from vowel distribution has similarity with syllable

distribution are their distribution showing those both vowels appear on all positions.

**5.2.2.3 Consonant distributions of ηəno-ηəne dialect**

**5.2.2.3.1 Liquid distributions**

After the researcher showing vowel distribution the researcher continue presented a phenomenon from consonant is liquid distribution.

The researcher presented four steps involved in the identification of distributional restriction are sorting the data, listing the environments, eliminating the redundant environments and comparing the environment.

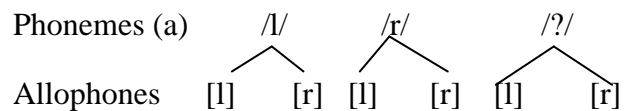
**1. The puzzle**

- ✓ *Data illustrating the distributions of liquids*

pupɔ r	mɑ li ŋ	lɛ pɔ ŋ
bərɔgɔ ʔ	pərə mɔ k	rəpɔʔ
læŋɪ t	lɑ ŋɔ n	dɛ rəʔ
lupɔ ʔ		rægi

- ✓ *Relationship of a phoneme to its allophones*


For these diagram describe both consonants can be phoneme and allophonene or their phoneme come from outside.



The meaning of question symbol (?) is what phoneme come from another liquid.

**2. Analyze**

- ✓ *Determining the distribution of vowels*

 *Sorting the data*

l	gloss	r	gloss
---	-------	---	-------

ma .li ŋ            thief    pu.pu r      face  
powder

lɛ .pʌ ŋ            frog      pə.rʌ m.pok  
robber


læ.ŋi t            sky      bə.ru.gʌ ?      gazebo

la .ŋa n            way      rə.pʊ?          little  
village

lu.pʌ ?            forget    dɛ .rɛ ?  
poor


 Listing the environment

l		r	
pre	post	pre	post
#	ɪ	ʊ	#
#	ɛ	#	ʌ
#	æ	#	u
#	ɑ	#	ə
#	u	#	ɛ
ə	#	#	u

 Eliminating the redundant environments

l		r	
Pre	post	pre	post
#	ɪ	ʊ	#
	ɛ	#	ʌ
	æ		u
	ɑ		ə
	u		ɛ

#

 Comparing the environment

The comparing between liquids ‘l’ appear on initial and final positions while ‘r’ appear on initial and final position until the researcher saying those they phonemes on their distribution.

### 3. Conclusion

This data focus on two data are designed to illustrate the distribution of the Sasak Masbagik liquids are consonant ‘l’ and ‘r’.

The researcher analyzed the data and the researcher found that in Sasak Masbagik language both liquids has restriction on their distribution. Specifically ‘l’ is restricted on medial position and appear on initial and final positions or the position following the all vowels. And the liquid ‘r’ has similarity found by liquid ‘l’ is has restriction on medial and appear on initial and final and then the position following the all vowels.

Before, the researcher has assumes that either liquids are a phonemes but after the researcher analysis position the fact they are two distinct sounds and the conclusion from this research is they are phoneme in their distributions.

#### 5.2.2.3.2 Glottal stop and velar distribution

Glottal stop and velar are two consonants has mention familiar but the fact they are differ which glotal stop (ʔ) has limited distribution and only appear in final position while velar (k) has large distribution.

The researcher begin consonant distribution with analyzing glotal stop



Diagram above showing that velar (k) and glottal (ʔ) are different phonemes although glottal constrains only appear in final position.

Not enough with explanation above the researcher seeking their relationship and cause why they like that, the researcher using place of articulation to identify relation and cause on them.

The researcher using Akmajian's book (1944-1983.p.108) on his book describing the consonant with a table those velar and glottal has relationship on manner of articulation are stops and voiceless until they always can appear together.

### 3. Conclusion

The conclusion of this case they are differences phonemes because it has wider distribution. The another fact are Masbagik not allow glottal appear on word initial or medial positions.

#### 5.2.2.3.3 Nasal distribution

In these section the researcher introduced nasal phenomenon through ηəno-ηəne dialect. Which the researcher showed nasal such as ‘ η, ɲ, n, and m’. The purpose in this research is found nasal position appear in ηəno-ηəne and found what they come from one same phoneme or it come from different phoneme.

These phenomenon have in common restriction on of two or more resulting in gaps in the distribution. Such as Phonology's explain that gaps in distributions stem from the fact that not all logical possibilities are attested.

Linguistic refer to these sounds as a phoneme, other sounds through different acoustically and articulatorily not play a significant role in distinguishing means but linguistic treat these sounds as the variants of other phonemes and refer to them as allophones. (Peng.2013)

This section the researcher has two objectives are first, analysis problem and second found phoneme and allophone on ηəno-ηəne dialect.

#### 1. *The puzzle*

- ✓ *Data illustrating the distributions of nasals*

Λ ηsʊ l gə nti ʔ kiloΛ n bæntʊ  
 tə ndΛ η dɑ təη ti ndoʔ mɑ ηΛ n  
 nə rikΛ h sΛ mpΛ n

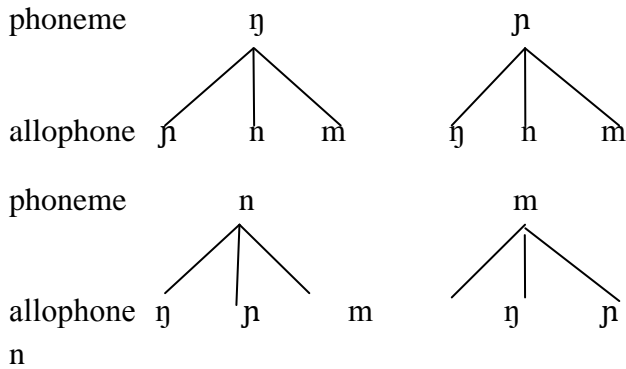
ηændɛ η ɲ irΛ msi mbʊ t inəm  
 ti mpΛ k ɲ i mpə n ɲ iwΛ ʔ  
 ɲ ili ʔ ɲ imΛ ʔ ɲ æʊ r

- ✓ *Relationship of a phoneme to its allophone*

The researcher showing four diagrams which these it draw each nasal can be phoneme



or allophone. For top nasal means as a phoneme and down nasal as an allophone.



For getting the result which one be phoneme or allophone the researcher continu with start analyze the data procedure appropriate.

**2. Analyze**

✓ *Determining the distribution of nasals*

✚ Sorting the data

The researcher do data classification nasal's follower appropriate so that easier to know nasal appear on each stem or a word.

phonetic      gloss      phonetic      gloss

ɲ. ʌ ɲsʊ l 'cash back'      dɑ tə ɲ  
'come'

mɑ ɲʌ n 'eat'      mɔ ɲkʌ ʔ 'rice  
cooked'

ɲændæɲ 'ask'

ɲ. ɲ ɪrʌ m 'a splash water'

ɲ ɪ mpə n 'save'

ɲ ɪ wʌ ʔ 'ninth days funeral'

ɲ ɪ li ʔ 'angry'      ɲ ɪ mʌ ʔ  
'following'

n. gə ntɪ ʔ 'change'      nʊ mpʌ h  
'fuck'      pʌ nto 'watch'      kilɔʌ n  
'weigh bowl'

nə rikʌ h 'iron'

m. tɪ mpʌ k 'throw'      mə riʌ p 'cook'  
sumʊ r 'well'      ɪnə m 'drink'  
sʌ mpʌ n 'ship'

✚ Listing the environment

The following stem structure above the researcher drawing nasal's appears environment. The researcher clasification environment with each nasal's appear. For hastag symbol means nasal appear on word initial or final positons.

	ɲ	ɲ	n	m
ʌ	# #	i ə	#	ɪ #
ə	# #	ɪ	#	ʊ #
ə				
#	ʌ #	i ʌ	#	# ʊ
ɔ	# #	i ʌ	#	ə m
æ	# #	i #	ə	ʌ m

✚ Eliminating the redundant environments

	ŋ	ɲ	n	m
Λ	#	#	i ə #	ɪ #
ə	Λ		ɪ #	u #
#			Λ	ə
ɔ				Λ
æ				

The eliminating above showing that nasal ‘ŋ, n and m’ appear on all positions while nasal ‘ɲ’ has limited distribution is appear on word initial only. Although nasal ‘ɲ’ has limited distribution but the researcher try to comparing the their environment until the researcher getting the real result.

#### ✚ Comparing the environment

After showing the result of the data the researcher comparing the environment from nasal environment which nasal above is a phoneme. Although nasal ‘ɲ’ has limited distribution but it as not allophone and nasal above has contrastive environment are having the same environment.

### 3. Conclusion

The researcher presenting two sets data from Sasak Masbagik and illustrate the distribution of the nasals sounds in Sasak Masbagik, first set of the data the researcher found appear positon from nasals such as word initial, medial and final positions, the conclusion in this section are all of nasals phonemes because they have wider distribution and the same environment without need complementary from other nasal and we can saying that they are different phonemes.

The researcher found that nasal ‘ŋ, n, and m’ can appear in all positions, while nasal

‘ɲ’ limited distribution is only appear in word initial and medial positions. Second, set of the data illustrates the distribution that their are phonemes.

### 5.3 Alternation phenomenon

This unit introduces alternation phenomenon in ŋəno-ŋəne dialect. the same like phenomenon before the researcher focus on a segment. The researcher presenting an alternation impacting nasal consonant in ŋəno-ŋəne dialect. Such on nasal distribution the fact is nasal has restriction on their distribution. The researcher analyzing nasals throught nasals prefixes alternation.

In ŋəno-ŋəne dialect found an alternation phenomena which alternation is a change consonant to be a nasal prefix.

According to Peng.2013 Alternation is a type of phonological phenomenon which a unit of meaning such as a root or prefix appear alternate when its pronunciation. In analyzing distributional problem in this case linguistic consider the forms that may or may not be semantically related.

The goals of this unit is introduces the phenomenon of phonological alternation which this unit designed to familiar with the characteristic of phonological alternation. And the researcher also showing an evidence those distribution and alternation has the similarities and differences.

#### 5.3.1 Nasal alternation

##### 1. The puzzle

- ✓ Data illustrating an alternation in ŋəno-ŋəne dialect

pəŋ-Λ ŋsɔ l pəŋ-gæjɪ pəŋ-ga de pəŋ-gə nti ?

pəŋ-kædu pəŋ -jɛ wʊ ? pəŋ -cuku p pəŋ -  
cərita ?

pəŋ -su mɾɔ ? pəm-bəli pəm-bɛ ntʊ pən-  
ti ndo?

pəŋ -susɔ h pən-tujɔ ? pəŋ-inəm pəm-  
ɔ nto

✓ *Comparison of forms with or without  
prefix*

ɔ ŋsʊ l 'cash back' pəŋɔ ŋsʊ l 'return'

gɛ ji 'salary' pəŋgɛ ji 'salary  
people'

gɔ de 'pawning' pəŋgɔ de 'pawning  
tool'

gəntɪ ? 'change' pəŋgəntɪ ?  
'change tool'

kædu 'using' pəŋædu 'user'

jæwʊ ? 'bring' pənjæwʊ ?  
'bringer'

cuku p 'enough' pəŋ uku p 'just  
enough'

cərita ? 'story' pəŋ ərita ?  
'teller'

sʊ mɾɔ ? 'fuck' pəŋ ʊ mɾɔ ? 'fucker'

tuloŋ 'help' pənuloŋ 'helper'

tɔ o? 'know' pənɔ o?  
'skill'

dɔ təŋ 'come' pəndɔ təŋ  
'immigrant'

ti ndo? 'sleep' peni ndoɔ n  
'sleeper'

ɾɔ nto 'watching' pəɾɔ nto 'spectator'

susɔ h 'troubled' pəŋ usɔ h 'a people  
troubled'

tujɔ ? 'pound'  
pənujɔ ? 'pound tool'

mɔ ŋɔ n 'eat'  
pəɾmɔ ŋɔ n 'people eat'

bəli 'buy'  
pəmbəli 'buyer'

bəntʊ 'help'  
pəmbəntʊ 'assistant'

### 5.3.1.1 Nasal assimilation

Nasal assimilation is a phenomenon of nasal sound changing become similar to the sound with is located nearby. Generally, nasal assimilation is regressive assimilation which the sounds changing is an affected by the sounds that follows.

Next, the researcher showing English nasal assimilation with its prefix use come from Peng's book.2013.

#### (12) The table of Nasal assimilation in English (Peng, 2013,p.100)

Adjective	Prefixed form
pɔ sə bl	ɪ mɾɔ sə bl
dɪ fə nsɪ bl	ɪ ndrɪ fə nsɪ bl
kɔ nsɪ də rent	ɪ ŋkɔ nsɪ də rent

According to the table above the researcher found that 'ɪ m' appear immediately before 'p', 'ɪ n' appear with 'd' and the last 'ɪ ŋ' can appear with 'k'.

According to (Peng, 2013, p.105) Alternation refer to one morpheme which it is an affix, root, stem or word has two or more phonetic forms.

**(13)The table of Nasal assimilation without changes in ḡəno-ḡəne dialect**

Such English prefix above the researcher showing some prefixes come from ḡəno-ḡəne dialect which prefix use nasal prefix. There are four prefixes use in ḡəno-ḡəne dialect such as ‘ḡ, ɲ, n and m’. Next the researcher invite for look at the under table.

Stem	Prefixed	Sasak phonetic	Meaning
Λ ngsu l	pəḡ	Pəḡ-	Cash back
Gæji	pəḡ	Λ ngsu l	People
Ga dε	pəḡ	Pəḡ-gæji	salary
gə nti ?	pəḡ	Pəḡ-	Pawning
kædu	pəḡ	ga dε	changer
susΛ h	pəɲ	Pəḡ-	using
jε wu ?	pəɲ	gənti ?	troubled
cuku p	pəɲ	Pəḡ-	Bringer
cərita ?	pəɲ	ædu	Just
su mpa ?	pəɲ	Pəɲ -	enough
tuloḡ	pəɲ	usa h	teller
ta o?	pə n	Pəɲ -	fucker
da təḡ	pə n	jε wu ?	helper
ti ndo?	pə n	pəɲ -	skill
tujΛ ?	pə n	uku p	immigrant
ma ḡΛ n	pə n	pəɲ -	sleeper
pa nto	pə m	ərita ?	pound
bəli	pə m	pəɲ -	tool
bəntu	pə m	u mpa ?	Eat
		Pə n-	Spectator
		uloḡ	Buyer
		pən-	Assistant
		a o?	
		pə n-	
		da təḡ	
		pə n-	
		i ndo?	
		pə n-	
		ujΛ ?	
		pə m-	

		ma ḡΛ n	
		Pə m-	
		Λ nto	
		Pə m-	
		bəli	
		Pə m-	
		bəntu	

It can be seen from table above there are four variants prefixes those are (ḡ, ɲ, n and m).

Questions:

- What are four sound above has relation phonological?
- How to seek method relation variant itself?
- Which from four variant to be UR?
- What use rule for getting UR?
- How to method for determine phonemes four variant prefixes?

**2. Analyze**

The researcher show nasal assimilation the data and saw that it above doing shape changes when followed or adding by suffix ‘peng, peny, pem and pen. The fact occur deletion process which this process would omit phoneme from word it when verb adding an affix and would change with suffix.

**✓ (14) The distribution fourth prefixes with different phonetic forms**

pəḡ		pəɲ		pə n		pə m
Pre	post	Pre	Post	Pre	Post	Pre
	a		c		t	
	g		s		d	
#	k	#	ɲ	#		#
	o		j			
	i					
	ḡ					

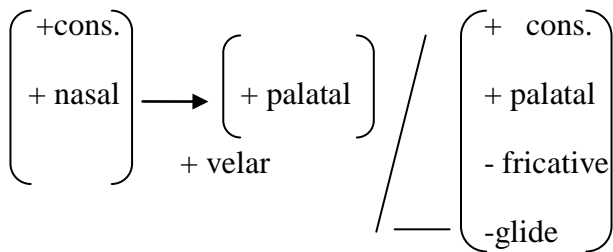
According to table above all variants prefixes has differences environment and predictable because fourth those variant has predictable environment making predictability argument cannot use for a phoneme determine and then it can not be generalized into a rule of Nasal Assimilation. For that the researcher using the second argument is simplicity which is use assumption for to getting a phoneme.

Assumption 1 : ‘pəŋ’ is a UR

For getting an evidence ‘pəŋ’ can be a phoneme the researcher try to collaboration with all nasals. The researcher use ‘pəŋΔ ηsʊ l’ as an example in this assumption. Nasal ‘pəŋ’ change to ‘pəŋ’ followed by c, s, j, ɲ consonant.

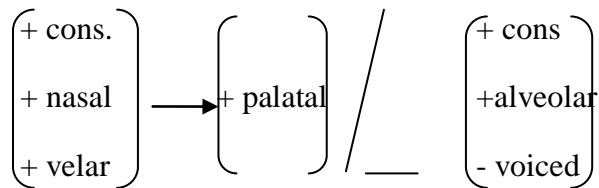
1. pəŋ → pəŋ / \_\_\_ c, s, j, ɲ

ŋ → ɲ / \_\_\_ c, j, ɲ



pəŋ/ŋ is +nasal and +velar while pəŋ /ɲ is +palatal for ‘c, j, ɲ’ they are +palatal, -fricative and -glide

2. ŋ → ɲ / \_\_\_ s

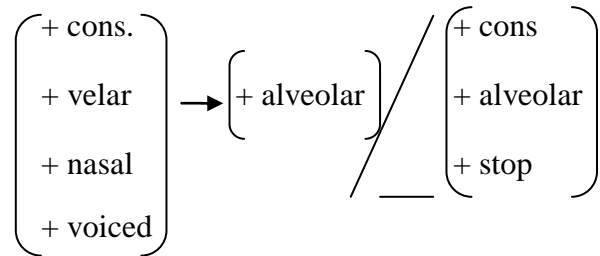


For articulation ‘s’ not similarity with articulation ‘c’ until the researcher separated

two these articulations articulation appropriate.

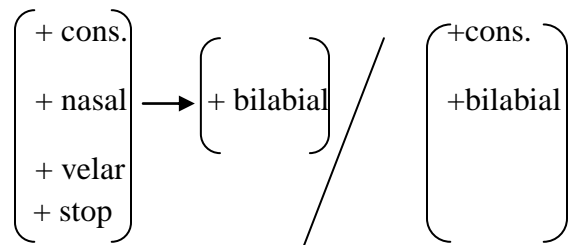
3. pəŋ → pəŋ / \_\_\_ t, d

ŋ → n / \_\_\_ t, d



4. pəŋ → pəŋ / \_\_\_ p, b, m

ŋ → m / \_\_\_ p, b, m



(15) Derivation process

UR	/pəŋ- Δ ηsʊ l/	/pəŋ- cukʊ p/	/pəŋ-bəlɪ /
X	NA	pəŋ-cukʊ p	pəŋ-bəlɪ
SR	[pəŋ- Δ ηsʊ l]	Not attested	[pəŋ-bəlɪ ]

We can saw (5.3.1.1) that between four the data derivation just distribution ‘pəŋ’ can assimilation process while four not attested and doing deletion process so that they can be attested on their place of articulation appropriate.

Rule pəŋ is the phoneme:

ŋ → ɲ — 2 rules

ŋ → n — 1 rule

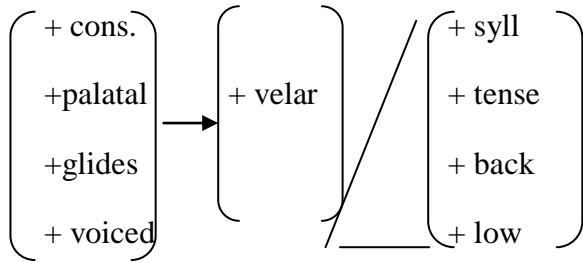
ŋ → m — 1 rule

The total score in pəŋ rule is four rules

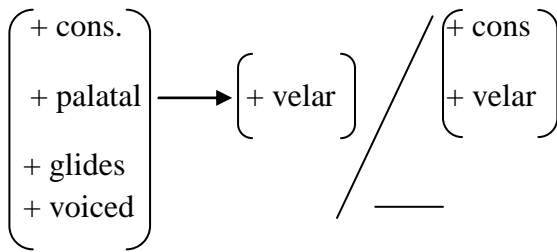
Assumption 2 : 'pəŋ' is a UR

5. pəŋ → a, g, k, o, i, ŋ

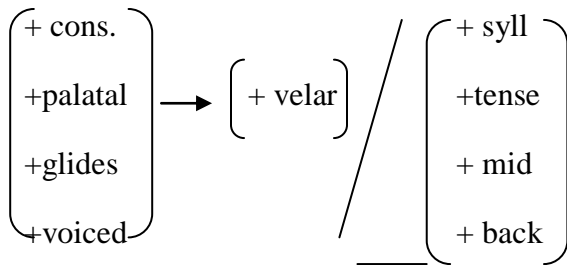
ɲ → ŋ / \_\_\_ a



ɲ → ŋ / \_\_\_ g, k, ŋ

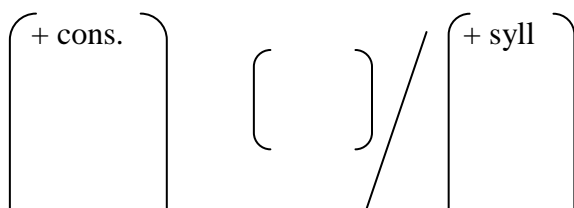


ɲ → ŋ / \_\_\_ o



6. pəŋ → pəŋ / \_\_\_ i

ɲ → ŋ / \_\_\_ i



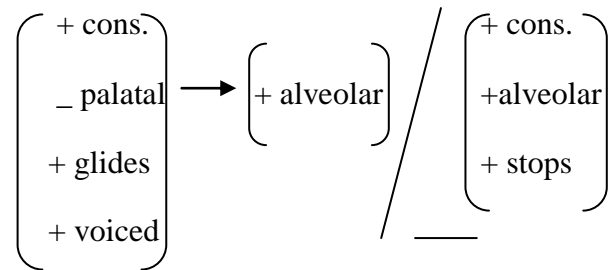
+ palatal → + velar + tense

+ glides + high

+ voiced — + front

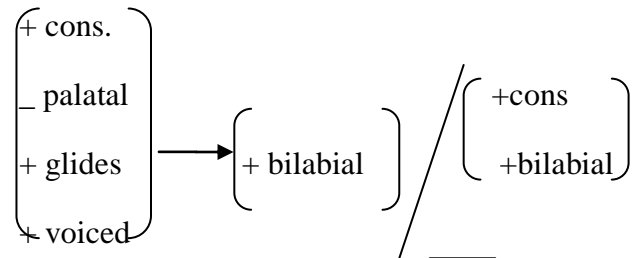
7. pəŋ → pəŋ / \_\_\_ t, d

ɲ → n / \_\_\_ t, d



8. pəŋ → pəm / \_\_\_ p, b, m

ɲ → m / \_\_\_ p, b, m



(16) Derivation process

UR	/pəŋ - ɲ uku p/	/pəŋ - ga de/	/pəŋ - bəli/	/pəŋ - tuɟʌ ? /
X	NA	pəŋ - ga de	pəŋ - bəli	NA
SR	[pəŋ - ɲ uku p]	Not Attested	Not Attested	[pəŋ - uɟʌ ? ]

Rule pəŋ is the phoneme:

ɲ → ŋ — 4 rules

n → n — 1 rule

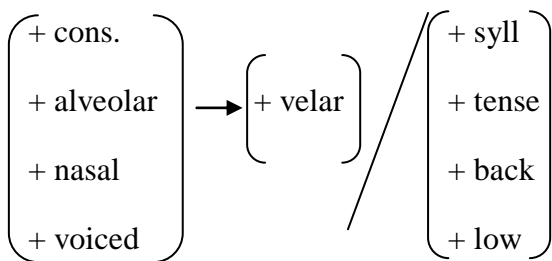
n → m — 1 rule

The total score for pən is six rules.

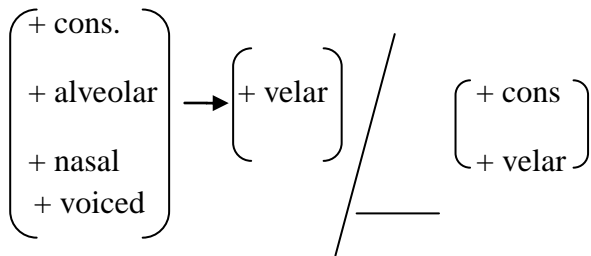
Assumption 3 : 'pən' is a UR

pən → pəŋ / \_\_\_ a, g, k, o, i, ŋ

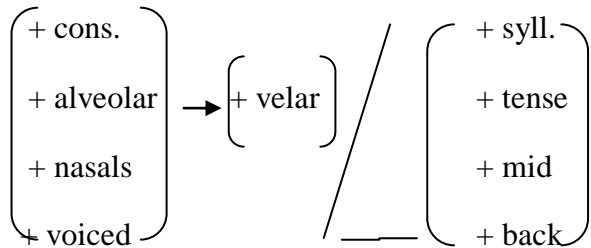
n → ŋ / \_\_\_ a



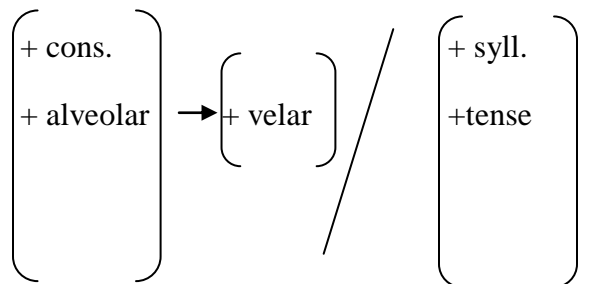
n → ŋ / \_\_\_ g, k, ŋ



n → ŋ / \_\_\_ o



n → ŋ / \_\_\_ i

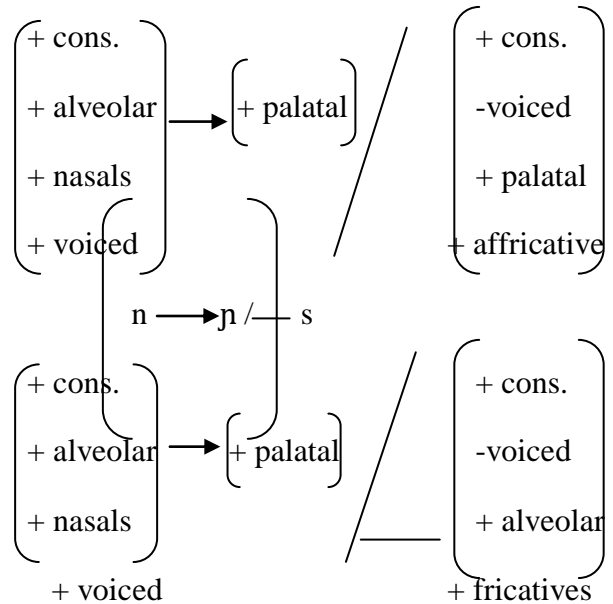


+ nasals + high

+ voiced + front

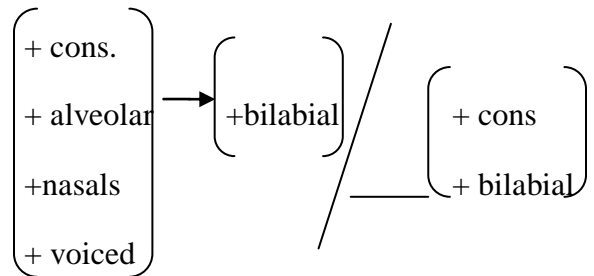
10. Pən → pəŋ / \_\_\_ c, s, j, ɲ

n → ɲ / \_\_\_ c, j, ɲ



11. pən → pəm / \_\_\_ p, b, m

n → m / \_\_\_ p, b, m



(17) Derivation process

U	/pən	/pən-	/pən-	/pən-
R	-	cukʊ p/	ma ŋʌ n/	kilowʌ
	ta o			n/
	ʔ /			
X	NA	pəŋ cuk	pəm-	pənkilo
		ʊ p	ma ŋʌ n	wʌ n
SR	[pən	[Atteste	[Atteste	[Not
	-	d]	d]	Attested

	a o			]
	? ]			

Rule pæn is the phoneme:

n → ŋ — 4 rules

n → ɲ — 2 rules

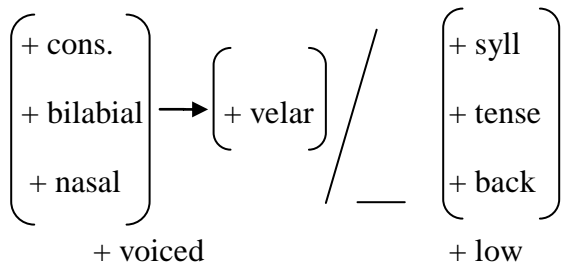
n → m — 1 rule

The total score on pæn rule is seven rules

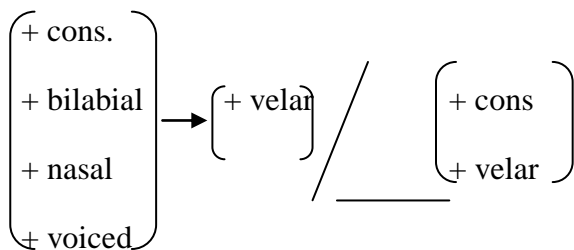
Assumption VI: pæm — phoneme

Pæm → pæŋ / \_\_\_ a, g, k, o, i, ɲ

m → ŋ / \_\_\_ a

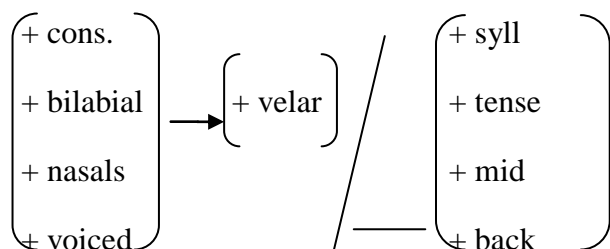


m → ŋ / \_\_\_ g, k, ɲ



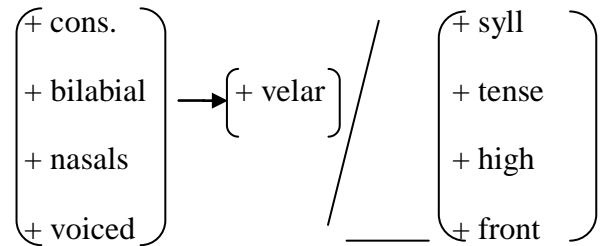
14. pæm → pæŋ / \_\_\_ o

m → ŋ / \_\_\_ o



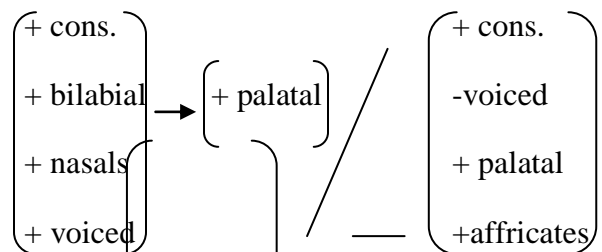
15. Pæm → pæŋ / \_\_\_ i

m → ŋ / \_\_\_ i

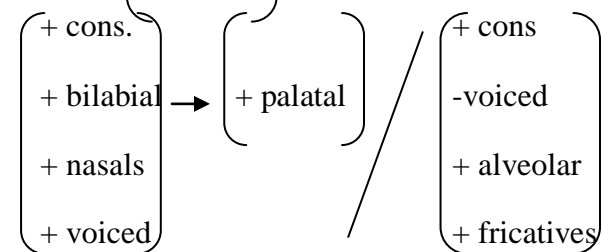


16. Pæm → ɲ / \_\_\_ c, s, j, ɲ

m → ɲ / \_\_\_ c

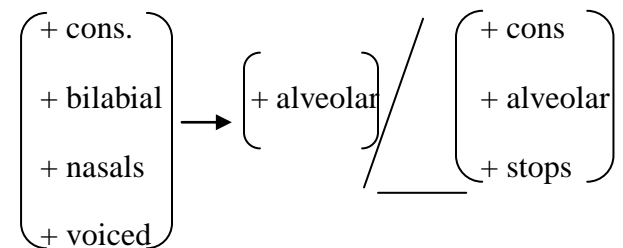


m → ɲ / \_\_\_ s



17. pæm → pæn / \_\_\_ t, d

m → n / \_\_\_ t, d



(18) Derivation process

U	/pæm-	/pæm-	/pæm-	/pæm-
---	-------	-------	-------	-------



R	bε ntu/	Λ mpΛ h	irυ p/	tι ndo
X	NA	pəɲ - Λ mpΛ h	pəm- irυ p	NA
S R	[pəmbænt u]	[Atteste d]	[not atteste d]	[pən- ι ndo ? ]

Rule pəm is the phoneme:

m →ɲ —4 rules

m →ɲ —2 rules

m →n —1 rule

The total score on pəm is seven rules

This argument using abbreviation word when showed place of articulation such as a consonant to be consonant and syllable be syllable. These using at symbol also like (+) the real on place of articulation while (-) meaning not until when the researcher putting symbol (-) on some word has meaning "not". Like the under data the researcher using (-) on consonant "y" which this consonant there is between two place of articulation are palatal and alveolar but will "y" not palatal or alveolar until the researcher using symbol (-) as symbol for the second place of articulation.

According to phonological rule, the short and completed rule for all and having simple rule used to be a reference in application a rule.

While for four rules each has many scores total which for "pəɲ" has six rules, "pən" has seven scores rules, for "pəm" has seven scores rules and "pəɲ" has little score but can covering all rules use with score four scores rules. With the resulted those the researcher choose first application rule is

"pəɲ" for apply in this research because this is has simple size and completed used on all rules and following phonological rule.

(19).The table of nasal assimilation with changes in ηəno-ηənε dialect

Stem	Prefix	Sasak phonetic	Meaning
pΛ nto	Pəm	Pəm-	Spectator
tι ndo?	Pən	Λ nto	Sleeper
tujΛ ?	Pən	Pən-	Pound tool
tα o?	Pən	ι ndo?	Skill/ability
Kædu	pəɲ	pən-	User
KilowΛ n	pəɲ	ujΛ ?	Kilogram
cukυ p	Pəɲ	Pən-	tool
sα op	Pəɲ	α o?	Complemen t
cəritΛ ?	Pəɲ	Pəɲ-	Sieve
sυ mpΛ	Pəɲ	ædu	Story teller
?		Pəɲ- ilowΛ n	Fucker
		Pəɲ - ukυ p	
		Pəɲ - α op	
		Pəɲ - əritΛ ?	
		Pəɲ - υ mpΛ	
		?	

The goals of the data separate is for easier reader to understand alternate a cause use prefix on stem or not.

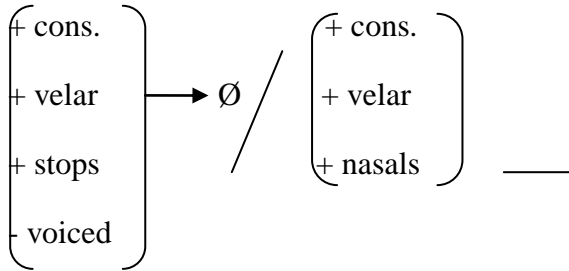
### 5.3.1.2 Consonant deletion

a. k →∅ / ɲ

Stem	Prefix	Gloss
kilowΛ n	Pəɲ-ilowΛ n	Kilogram

		tool
Kædu	Pəŋ-ædu	User

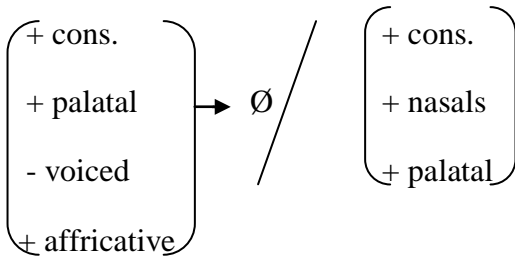
k → Ø / ŋ



b. c → Ø / ɲ

Stem	Prefix	Gloss
cukɯ p	Pəŋ -ukɯ p	Complement
cəritɔ ʔ	Pəŋ -əritɔ ʔ	Story teller

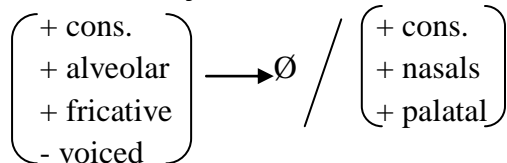
c → Ø / ɲ



c. s → Ø / ɲ

Stem	Prefix	Gloss
sɯ mpɔ ʔ	Pəŋ -ɯ mpɔ ʔ	Fucker
sɑ ɔ p	Pəŋ -ɑ ɔ p	Sieve

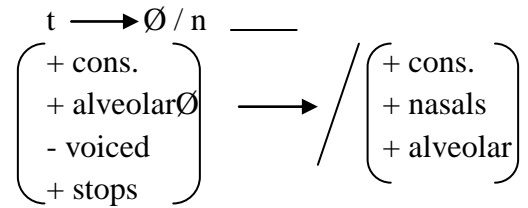
s → Ø / ɲ



d. t → Ø / n

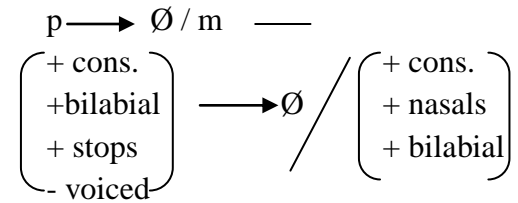
Stem	Prefix	Gloss
tɪ ndoʔ	Pəŋ- ɪ ndoʔ	Sleeper

tujɔ ʔ	pəŋ-ujɔ ʔ	Pound tool
tɑ oʔ	Pəŋ-ɑ oʔ	Skill/ability



e. p → Ø / m

Stem	Prefix	Gloss
Pɔ nto	Pəŋ-m-ɔ nto	Spectator



### 5.3.1.3 Geminate deletion

Geminate deletion is the consonant deletion changed with consonant has same articulation with it.

a. k → Ø / ŋ

Stem	Prefix	Gloss
kilowɔ n	Pəŋ-ilowɔ n	Kilogram tool
Kædu	Pəŋ-ædu	User

The place of articulation consonant 'k' is velar and it's manner of articulation is stop voiceless. The change for consonant 'k' is nasal 'ŋ' which it has the same place and manner of articulation.

b. c → Ø / ɲ

Stem	Prefix	Gloss
cukɯ p	Pəŋ -ukɯ p	Complement
cəritɔ ʔ	Pəŋ -əritɔ ʔ	Story teller

The consonant ‘c’ would change by nasal ‘ɲ’ because has the same place of articulation is palatal.

c. s → Ø / ɲ

Stem	Prefix	Gloss
su mɲʌ ʔ	Pəɲ -u mɲʌ ʔ	Fucker
sə ɔ p	Pəɲ -a ɔ p	Sieve

Like as consonant ‘c’ this consonant has the same place and manner of articulation are voiced palatal.

d. t → Ø / n

Stem	Prefix	Gloss
tɪ ndoʔ	Pən- ɪ ndoʔ	Sleeper
tujʌ ʔ	pən-ujʌ ʔ	Pound tool
tə oʔ	Pən-a oʔ	Skill/ability

For consonant ‘t’ has place of articulation voiceless alveolar stop and always change by voiced alveolar nasal.

e. p → Ø / m

Stem	Prefix	Gloss
Pʌ nto	Pəm-ʌ nto	Spectator

And the last consonant ‘p’ or called often with bilabial stop this consonant would change by nasal ‘m’ when the change experience on alternation phenomenon.

The fact the consonant deletion experience always changed by nasal until the researcher make a rule which this rule describe changed process on consonant to nasal.

**The rule of consonant change to nasal**

α nasal → Ø    α nasal →

In (5.3.1.5) the researcher showed articulation deletion when their alternation. For clear, the researcher describing rule above with a sentence and hope for easier the reader on understood a rule structure.

The consonant ‘k’ deletion when meet with nasal ‘ŋ’ which this consonant is +velar on place of articulation with stops and –voiced on manner of articulation. While nasal ‘ŋ’ is +velar on place of articulation and nasal +voiced on manner of articulation.

The consonant ‘c’ deletion when appear with nasal ‘ɲ’. It is +palatal on place of articulation with –voiced and +affricative on manner of articulation. And nasal ‘ɲ’ as +palatal on place of articulation which on manner of articulation it is glides +voiced.

The consonant ‘t’ is +alveolar on place of articulation by means –voiced and +stops on manner of articulation. The consonant ‘t’ deletion when appear with nasal ‘n’ which this is alveolar on place of articulation and nasal +voiced on manner of articulation.

And the last consonant ‘p’ is +bilabial on place of articulation which it is –voiced and stops on manner of articulation. The consonant ‘p’ deletion when they appear together with nasal ‘m’ as bilabial in place of articulation and nasals on manner of articulation.

### 5.3.1.4 ‘pə’ prefix

#### (20) ‘pə’ prefix table

Stem	Prefixed	Sasak phonetic
rombo ʔ	pə	pə-romboʔ
lʌ mpo h	pə	pə-lʌ mpoh
rʌ pət	pə	pə-rʌ pət

lɛ kʌ ?	pə	pə-lɛ kʌ ?	Ø Walker → + velar	+ tense
---------	----	------------	--------------------	---------

— + high  
— + front

For this prefix the researcher try to devide with nasal prefix for getting an evidence that it have corrolation with nasal prefix or not. The goal of this devide is the researcher want giving an exception on this session because this prefix not nasal prefix but it is independent prefix. The researcher analyzing with some assumptions.

Assumption : Pə — phoneme

pə → pəŋ / — a, g, k, o, i, ŋ

Ø → ŋ / — a

$\left[ \emptyset \right] \rightarrow \left[ + \text{velar} \right] / \left[ \begin{array}{l} + \text{syll.} \\ + \text{tense} \\ + \text{back} \\ + \text{low} \end{array} \right]$

Ø → ŋ / — g, k, ŋ

$\left[ \emptyset \right] \rightarrow \left[ + \text{velar} \right] / \left[ \begin{array}{l} + \text{cons} \\ + \text{velar} \end{array} \right]$

Ø → ŋ / — o

$\left[ \emptyset \right] \rightarrow \left[ + \text{velar} \right] / \left[ \begin{array}{l} + \text{syll} \\ + \text{tense} \\ + \text{mid} \\ + \text{back} \end{array} \right]$

Ø → ŋ / — i

$\left[ \quad \right] \left[ \quad \right] / \left[ \begin{array}{l} + \text{syll} \end{array} \right]$

20. Pə → pəŋ / — c, s, j, ŋ

Ø → ŋ / — c, j, ŋ

$\left[ \emptyset \right] \rightarrow \left[ + \text{palatal} \right] / \left[ \begin{array}{l} + \text{cons} \\ + \text{palatal} \\ - \text{voiceless} \end{array} \right]$

Ø → ŋ / — s

$\left[ \emptyset \right] \rightarrow \left[ + \text{palatal} \right] / \left[ \begin{array}{l} + \text{cons.} \\ - \text{voiced} \\ + \text{alveolar} \end{array} \right]$

pə → n / — t, d

Ø → n / — t, d

$\left[ \emptyset \right] \rightarrow \left[ + \text{alveolar} \right] / \left[ \begin{array}{l} + \text{cons} \\ + \text{alveolar} \\ + \text{stop} \end{array} \right]$

22. pə → pəm / — p, b, m

Ø → m / — p, b, m

$\left[ \emptyset \right] \rightarrow \left[ + \text{bilabial} \right] / \left[ \begin{array}{l} + \text{cons.} \end{array} \right]$

\_\_\_\_\_ + bilabial

Rule ‘pə’ is a phoneme

∅ → ŋ \_\_\_\_\_ 4 rules

∅ → ɲ \_\_\_\_\_ 2 rules

∅ → n \_\_\_\_\_ 1 rule

∅ → m \_\_\_\_\_ 1 rule

The total rule for pə is eight rules

Like explained above that phonological rule use is the short, complete can include to all rules and the last has simple rule is use to be a reference in application rule.

### 21. Derivation process

U R	/pəɬ mpə h /	/pətu loŋ/ /	/pəɬ ŋ su l/ /	/pəbæ ntu/ /	/pəɲ ɬ mpɬ h/ /
X	Attest ed	Not attest ed	Not atteste d	Not atteste d	Not attested
S R	[pəɬ mpoh]	[pən ulog]	[pəŋɬ ŋsu l]	[pəmb æntu]	[pəɲ ɬ mpɬ h]

### 5.3.1.5 Deletion process

Deletion is a process of the disappearance of sound when pronounced. According to (O’grady, Dobrovolsky and Aronoff) deletion is a process that removes a segmental from certain phonetic contexts. Usually in English a schwa (ə) is often deleted when the next vowel in the word is stressed.

But in ɲəno-ɲəɛ dialect there are some are often deleted the researcher took some samples as an evidence that ɲəno-ɲəɛ dialect use deletion process. Like ‘pəncuku p’ become ‘pəɲuku p’ consonant ‘c’ deleted and changed by consonant nasal ‘ɲ’.

Until the researcher found that there are five consonants are often deleted processes when the beforehand nasal which consonants those are ‘k, c, s, t and p’.

### 5.3.1.6 Exceptional case

There are four processes has similarity features on place of articulation and manner of articulation while for alveolar (s) be accepted rule because this feature has different place of articulation with articulation ‘c’. Actually determining process a phoneme or an allophone must has similarity on place of articulation.

Another example come from /pəɲu mpɬ ? / word which this example by using nasal ‘ɲ’. Nasal velar ‘ɲ’ cannot assimilation to be palatal nasal ‘ɲ’ ‘pəɲu mpɬ ?’ because ‘s’ sound is alveolar feature not palatal. Until deletion rule apply and consonant deletion [-voiced] ‘s’ after [+voiced] ‘ɲ’ be /pəɲu mpɬ ? / cannot attested in ɲəno-ɲəɛ dialect.

### (22) Derivation process

UR	/pəŋɬ ŋsu l/	/pəɲuku p/	/pəmbəɬ /	/pəɲtu
X	NA	pəɲuku p	pəmbəɬ	pəɲtu
CN D	NA	pəɲuku p	NA	pəɲtu
SR	[pəŋɬ ŋsu l]	[pəɲuku p ]	[pəmbəɬ ]	[pəɲtu]

The resulted of the rule above which Consonant Nasal Deletion (CND) rule appear after rule X appear because CND make it clear that deletion process occur on rule X until the data can be attested with Masbagik pronouncing appropriate.

## 4. Comparison

The researcher compared three arguments use in this research, which the research found the differencess result. From three arguments used such as predictability, simplicity and naturalness the researcher choose naturalness as a complite argument because it these has completed analyzing until getting the real result for found a phoneme.

The compared with two arguments are predictability and simplicity in their rules resulting simple answer for a phoneme and has similarity resulted until can say that these rules cannot used for analyze a phoneme. The solution in this case the researcher using naturalness argument as the comparative result.

After the researcher made it a structural specifications phoneme appropriate with data above by using three types of linguistic arguments are predictability, simplicity and naturalness.

#### ***a. Predictability***

From the result above the researcher getting that prefix ‘pəŋ’ is a phoneme because it has simple and short rule appropriate with phonological rule.

#### ***b. Simplicity***

Between fifth prefixes use on ηəno-ηəne dialect found simple rule on prefix ‘pəŋ’ only.

#### ***c. Naturalness***

The third argument describe about derivation process which on Masbagik’s prefix use there are six derivations processes which each process the researcher putting in prefix. The researcher’s establish that assumption prefix ‘pəŋ’ is a UR or phoneme from fourth nasal prefixes are right. The researcher found

that there are five delete processes when beforehand nasal prefix which consonant those are ‘k, c, s, t and p’.

### **5. Conclusion**

In this case the researcher introduces case of phonology alternation involving ηəno-ηəne dialect, the researcher demonstrate this alternation how to ηəno-ηəne dialect method has an analysis process.

Top parts alternation phenomenon on ηəno-ηəne dialect is prefix which usually it as verb but changed when added prefix be noun as example ‘‘Λ ηsʊ l to be pə ηΛ ηsʊ l’’ on stem or root, ‘‘Λ ηsʊ l’’ is a verb changed to be noun ‘‘pə η-Λ ηsʊ l’’. Pə η as a object on the word changed and this prefix has means noun.

This research using three arguments for getting underlying representation. The first argument the researcher using predictability which a data can direct predictable when saw the data. The second argument is symplicity which the researcher using simple rule for found a phoneme is an assumption only. And the last is naturalness which it using feature in analysis process and in this argument processing contain such as the assumption, derivation process, deletion process.

The researcher compared these three arguments in the analysis of ηəno-ηəne dialect alternation and conclude that the second argument is simple but not affective and the researcher using the last argument is naturalness this argument is not only simple but also reveals the pattern in the data. The researcher expressed through one rule is ‘‘pə η’’ has six rules from prefix ‘‘pə η and pə n’’ has each two rules and ‘‘pə m’’ has each one rule.

Towards the end of this case the researcher analysis the problem which to be a phoneme from five prefixes for underlying representation and finally the concept of naturalness argument to be a choosed.

And the last the researcher found that “pəŋ” to be a underlying representation from fourth nasals because it use seven rules and has simple rule than fourth rules above while another fourth nasals be an allophone which these has purpose as a complementary if needed.

### 5.3.2 Voiceless obstruent fusion

Voiceless obstruent fusion is phonological process that occurs when nasal directly followed by voiceless obstruent.

#### 1. The puzzle

✓ Fusion in ηəno-ηəne dialect of sasakness

putə ?      pupə ?      popo?  
 kædu      kə pæk      kilowΛ n      sowæk  
 sə bo?      sə di ?      ti ndo?  
 tutu p      tulΛ k      cuku p      cə ritΛ ?  
 cə lΛ ?

In under affixed form coloumn the researcher not putting all of the data but selection for stems appear.

✓ (23) Stem adding affixed

Stem	Affixed form	Glossary
putə ?	mutə Λ η	Whitening
pupo?	mupo?	Creambath
popo?	mopo?	Washing
Sowæk	ŋ owæk	Cut
sə bo?	ŋ ə bo?	Conceal
sə di ?	ŋ ə di ?	Throw
Kædu	ŋædu	Use

kə pΛ k	ŋə pΛ k	Slap
kilowΛ n	ŋilowΛ n	Kilogram tool
cuku p	ŋ uku p	Enough
cə ritΛ ?	ŋ ə ritΛ ?	Story
cə lΛ ?	ŋ ə lΛ ?	Airlayer
ti ndo?	ni ndo?	Sleep
tutu p	nutu p	Close
tulΛ k	nulΛ k	Go back

- In [kædu] and [kə toΛ n] (k) changed be fused to prefix [ŋ] in initial word.
- In [ŋ uku p] and [ŋ owæk] (c and s) changed be fused to prefix [ŋ ] in initial word.
- In [tukə r] and [nukə r] (t) in initial word is fused to prefix [n].
- For [mupo? ] and [mopo? ] (p) in initial word is fused to prefix [m]

Consonants p, t, k, s and c fuse to nasal prefix which has similarities in place of articulation with them.

✓ (24) Place of articulation features of p, t, k, s and c

p	t	k	s	c
+anterior	+anterior	-anterior	+anterior	-anterior
-coronal	+coronal	-coronal	+coronal	-coronal
-high	-high	+high	-high	+high
-back	-back	+back	-back	-back

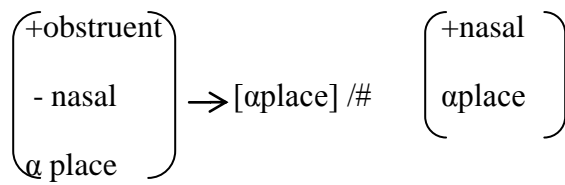
✓ (25) Place of articulation nasal

ŋ	ɲ	n	m
-anterior	-anterior	+anterior	+anterior
-coronal	-coronal	+coronal	-coronal
+high	+high	-high	-high

+back	-back	-back	-back
-------	-------	-------	-------

It can be seen that p, t, k, and c have the same place of articulation with respectively nasal [ŋ, ɲ, n and m] have features [+obstruent, -voiced, -continuant] although consonants [s] different have place of articulation but it have change be nasal [ɲ] same like consonant [c].

✓ Voiceless obstruent fusion



The following is derivation of [ŋɛ du]

**UR** /ŋ+kædu/

Voiceless obstruent fusion ŋædu

Vowel nasalization ŋædu

**PR** [ŋædu]

It can be seen that [ŋædu] has undergone two phonological rules which fuse /k/ and nasalized the vowel after [ŋ].

### 5.3.3 Glides Insertion

In this section the researcher introduced a phenomenon in ŋəno-ŋəne dialect. It is insertion glides phenomenon which is a type of phonological process which insert segment not present in the input. This research use Sasak Masbagik language as a illustrate insertion because in it is dialect have a process syllable structure consonant insert in a word.

#### 1. The puzzle

5.3.3.1 Consonant epenthesis in ŋəno-ŋəne dialect  
(26) Table of consonant epenthesis

Phonetic	Suffix	Gloss
Liyo	liyowΛ η	Look
Bæwu	bæwuwΛ η	Captured
ε pε	ε pε yΛ η	Have
pε tæ	pε tæyΛ η	Search
pα ro	pα rowΛ η	Some
Bə li	bə liyΛ η	Buy
sə biyæ	sə biyæyΛ η	Chili use
nα ε	nα ε yɪ n	Foot use
bε lo	bε lowΛ η	Lengthen
Susu	susuwɪ n	Breastfeed
Mə riri	mə ririyΛ η	Take clean
ɲ æpu	ɲ ε pu	Brush off
pæɲ u	pæɲ uΛ η	Ready

From the data above has found that glides ‘y’ dan ‘w’ would appear if follow by vowel. In this case the researcher showing that ŋəno-ŋəne dialect always mean changing when they followed by suffix.

On ŋəno-ŋəne dialect there some suffix use such as ‘Λ η’ dan ‘ɪ n’ suffix which each it has mean itself. When a word on ŋəno-ŋəne dialect added a suffix then would mean change from word before attested example showed on ‘sə biyæ’ ‘sə biyæ-y-Λ η’ and ‘nα ε’ ‘nα ε -y-ɪ n’ words which this words are noun and change be verb when they added a suffix because suffix ‘Λ η’ and ‘ɪ n’ has meaning of verb.

For clear explain the researcher making a rule for establish both glides appear. Name of each vowels took from manner of articulation. For minus (-) symbol means of no such under rule (-low).



## 2. Analyze

Ø → y / ε , æ, i

Ø →  $\left( \begin{array}{l} + \text{cons.} \\ + \text{glides} \\ + \text{palatal} \end{array} \right) / \left( \begin{array}{l} + \text{syll} \\ + \text{front} \\ - \text{low} \end{array} \right)$

Ø → w / ɔ , u

Ø →  $\left( \begin{array}{l} + \text{cons.} \\ + \text{glide} \\ + \text{velar} \end{array} \right) / \left( \begin{array}{l} + \text{syll} \\ + \text{back} \\ - \text{low} \end{array} \right)$

The goals of allow (-low) on discussion for showing evidence that on ηəno-ηəne dialect not allow vowel appear on (low) position and could followed by both glides.

## 3. Conclusion

On this session showed insertion glides process on some words in ηəno-ηəne dialect. Glides (y) appear when it followed by front high and front mid vowel such as (i, ε and æ) vowels and glides 'w' just follow by back high and back such as (u and ə) vowels.

### 5.3.4 Bə and Bər Prefix

#### 1. The Puzzle

##### 5.3.4.1 Prefix 'bə r'

bə rə nti ?    bə ridɔ p    bə rowɔ t  
 bə ru mbɔ ?    bə rupɔ ?    bə ritonj  
                   bə ræi ?  
 bə rɔ mɔ ?    bə rɔ ntɔ ?    bə ri nte

##### 5.3.4.2 prefix 'bə '

bə tɔ ηkɔ η    bə kə dæk    bə gitɔ ?  
                   bə bə lɔ t                    bə pisɔ ?  
 bə lə pi t                    bə gə ηjɔ h  
 bə cə lɔ ?    bə dɔ gɔ η    bə rujɔ k

bə hɔ jɔ t    bə jorɔ ?  
 bə mɔ mɔ ?    bə nɔ ε  
 bə sɔ lɔ m    bə bɔ wɔ η

✓ Comparison use and not use prefix in ηəno-ηəne dialect

(27) Table of Bə r and Bə prefix

Stem	Prefi x	Sasak ortographic	Meaning
rujɔ k	Bə r	bə rujɔ k	Fruit salad
u mbɔ ?	Bə r	bə ru mbɔ ?	Pickaback
iyɔ k	Bə r	bə ri yɔ k	Breath
upɔ ?	Bə	bə rupɔ ?	Giving pay
æi ?	Bə	bə ræi ?	Have water
æntɔ ?	Bə r	bə ræntɔ ?	Pull
ə mpi t	Bə r	bə rə mpi t	Sandbar
i nte	Bə r	bə ri nte	Spy
ε ntok	Bə r	bə rε ntok	Add
hɔ jɔ t	Bə	bə hɔ jɔ t	Plan
jorɔ ?	Bə	bə jorɔ ?	Joke
mɔ mɔ ?	Bə	bə mɔ mɔ ?	Mother
nɔ ε	Bə	bə nɔ ε	Foot use
sɔ lɔ m	Bə	bə sɔ lɔ m	Say hello

(28) table of ηəno-ηəne of sasakness alternation

Stem	Prefix	Sasak ortographic	Meaning
rujɔ k	Bə	Bə -rujɔ k	Fruit salad
u mbɔ ?	Bə r	Bə r-	Pickaback

		u mbΛ ?	
yΛ k	Bə r	Bə r-iyΛ k	Breath
upΛ ?	Bə	Bə -rupΛ ?	Giving Pay
æntu ?	Bə r	Bə r-æntu ?	Pull
ə mpi t	Bə r	Bə r-ə mpi t	Sandbar
ɪ ntɛ	Bə r	Bə r-ɪ ntɛ	Spy
ə ntok	Bə r	Bə r-ə ntok	Add
hɑ jΛ t	Bə	Bə - hɑ jΛ t	Plan
jorΛ ?	Bə	Bə - jorΛ ?	Joke
mɑ mΛ ?	Bə	Bə - mɑ mΛ ?	Mother
nɑ ε	Bə	Bə - nɑ ε	Foot Use
sɑ lΛ m	Bə	Bə - sɑ lΛ m	Say hello

Questions :

1. What are both prefix has correlation
2. How to method for to know their correlation
3. What are they would be UR or vise fersa
4. What rule use for getting UR
5. If they have difference what is cause it are differ

2. **Analyze**

*The different use distribution on phonetic*

bə		bər	
#	r	#	u
	h		ʊ
	j		i
	m		ɪ
	n		æ
	s		ə
			ɛ

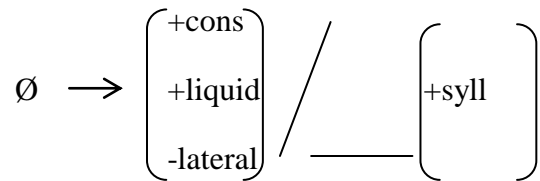
The researcher started from identifaction process such as insertion ‘r’, deletion, and then derivation processes.

Analyze I:

Assumption 1: bə is the phoneme

∅ → r / \_\_\_\_\_ u, ʊ, i, ɪ, æ, ə, ɛ

a) Insertion ‘r’



✓ Derivation process

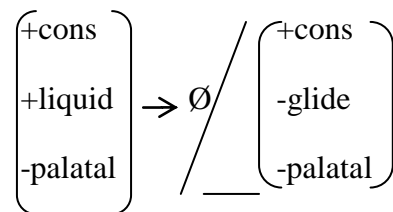
UR	/bəəntɪ ? /	/bətΛ ηkɔ η/
X	bərəntɪ ?	NA
SR	[bərəntɪ ? ]	[bətΛ ηkɔ η]

Analyze II:

Asumption 2 : bə r is UR

r → ∅ / \_\_\_\_\_ r, h, j, m, n, s

b) Deletion



Derivation process

UR	/bəriɾΛ r/	/bərha jΛ t/
X	Attested	Not Attested
Deletion	bəriɾΛ r	bəha jΛ t
SR	[bəriɾΛ r]	[bəha jΛ t]



### ✓ **Naturalness**

For this case the researcher analyze by using constraint until the researcher achieved the result both of the prefixes that just allow vowel that had similar feature with them because  $\eta\text{əno-}\eta\text{ə}\text{n}\epsilon$  dialect did not allow a word that had consonant prefix such as 'b and r' were followed by anything vowel except vowel that had same feature with them.

### **3. Conclusion**

The researcher introduces other prefixes used in  $\eta\text{əno-}\eta\text{ə}\text{n}\epsilon$  dialect which prefix that was used by Masbagik people that there were two prefixes. Other nasal prefixes were 'bə and bər'. Both had each function and follower which prefix 'bə' was followed by all of consonant but had the exception for some consonants in  $\eta\text{əno-}\eta\text{ə}\text{n}\epsilon$  dialect such as (f, q, v, x, y and z). This occurred because these consonants were not used by Sasak Masbagik people because they never appeared in utterance and 'bər' was followed by all of vowels without exception. Although both prefixes had certain follower, but in this session the researcher found additional case with two words which it was just followed by vowel that had same feature with them.

### **Conclusion**

This research has five chapters which are the first chapter, second chapter, third chapter, fourth chapter and fifth chapter. The researcher introduced background of the study on this research and then the researcher drew the general and specific way of the researcher's thought. Identification of research problem presents variable used during the research on a syllable. The researcher presented some problems analyzed on statement of the problem. The goals of the research is that the researcher

presented some cases in this research. There were two significant of the study and they were theoretical significant and practical significances where the researcher mentioned sub variables used in this research such as syllable, distribution and alternation on research scope. The last operational definition on this stage was that the researcher gave explanation concerning variable applied by the expert.

The second chapter contains of two variables such as review of related studies which the researcher took a sample from Jadena's thesis by Boso Walikan title and Thalia, theoretical concepts. In this session the researcher showed variable concept from phonology part. And then, the last one was a theoretical framework which consisted of variable concepts.

The third chapter consists of research approach, research variable, population, sampling technique, techniques collecting procedure, data analysis procedure and research design. In the research approach, the researcher used descriptive qualitative. In this stage, the researcher used a direct research for getting the real data and Husni Muadz's students assignment as supporting data. In the research variable, the researcher used two variables: distribution and alternation phenomenon. And then, The researcher did not take all population in Masbagik but the researcher selected them based on the productive and non productive age of Masbagik people between 15 to 64 year old with degree 65, 039% as productive while non productif with 65+ year old with the sum 5, 098%. For sampling technique, the researcher did not take all of speech utterance. The reason to take the small population was that the researcher thought that all of Masbagik people had similar utterances in a word until small population that can be representative of big

population. And techniques of collecting procedure applied direct research which it merely focused on the several related research variables to solve the problems appearing in the research by using deep analysis. This research was a descriptive qualitative in which the researcher attempted to describe the phenomena occurring in the area of research. Usually, collecting data was taken from family, school, and environment. The researcher did not use a test procedure but the researcher used recording and note taking. Data analysis procedure obtained data during the research time processed by conducting some steps which started from identifying with phonetic application contain of phonetic transcription after that the researcher continued with classifying the appropriate data. Then, the researcher defined or described the data, presented the data and concluded the finding or evaluation.

In the fourth chapter, the researcher drew some problems coming from two research variables. After the researcher had done direct research, the researcher found some processes on distribution and alternation phenomenon. The researcher showed how to analyze, to find the data and to present by the result. This chapter consists of identification sounds (vowel identification and consonant identification), syllable distribution, vowel and consonant distribution, and alternation phenomenon.

The researcher found that ηəno-ηəne dialect did not have five vowels but it had eleven vowels. Eleven vowels were combination between five vowels with vowel variant which each vowel had one variant except ε vowel that had two variants. On other hand, the researcher found ten consonants such as labial, alveolar, palatal, velar, glottal stop,

nasal homorganic, liquid, nasal, pə prefix, bə and bər prefixes.

In addition, the researcher found six phonological process such as nasal assimilation, consonant deletion, geminate deletion, voiceless obstruent fusion, glides insertion, schwa insertion.

The researcher used procedure to establish the phonological rules with two approaches: rule approach and templatic approach. The researcher used processes of syllabification with certain CV (consonant vowel). This process used three types of syllables: initial, medial and final until maximal syllable appear CCCVC on stru m word.

The study of phonology gives high benefit when people want to know about production sounds because it is how it investigates sounds in discriminatory and a social function. The discriminatory function means of distinguishing one sequence of sounds such a word, sentences and text from another different meaning.

Then, a social function role uses syllable, word, word's combination and sentence. The study of phonology teaches how to use phonetic symbol which it describes place of sound production on sound organism.

The researcher's suggestion for teachers and other people when they are interested in knowing good pronunciation is to understand about phonological study. From this research the teacher introduced sounds production on human organ and the teacher also explained that phonological study not only for English language but also for all languages including their languages because they can find phenomena and the way of getting the result with simple method.

When the teacher expect their students to succeed in using language, they should intoduce study with phonology because the students are easier to understand the use and application of their language.

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