

**DIALECTAL VARIATION OF BOLE LANGUAGE**

**BY**

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## **DECLARATION**

I, Sulaiman Musa Aliyu (SPS/14/MLG/00014) hereby declare that this research entitled “Dialectal Variation of Bole Language” is my original ideas, under the supervision of Professor Lawan [anladi Yalwa. To the best of my knowledge no research work like this has been conducted elsewhere for the award of a degree or certificate. And all the sources consulted are dully acknowledged.

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## **CERTIFICATION**

This is to certify that this dissertation entitled “Dialectal Variation in Bole Language” has been presented by Sulaiman Musa Aliyu (SPS/14/MLG/00014) of Department of Linguistics and Foreign Languages, Faculty of Arts and Islamic Studies, Bayero University, Kano. It was carried out under my supervision. Copies of the dissertation are submitted for evaluation by the panel of examiners and subsequent oral defense.

Professor Lawan [anladi Yalwa

Supervisor

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This dissertation is dedicated to my late father, Malam Abdul}adir A. Abdu,  
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## **ABSTRACT**

This research work analysed some dialectal variations in four Bole dialects: Pikka, Bara, Kalam, and GaJam. It involves fieldwork which covers these major Bole dialects of north-eastern Nigeria. An interview was conducted with the native speakers of the dialects and a written questionnaire was filled out. The questionnaire consisted of 200 words, selected out of Swadish's wordlist (1955) with a little modification. This research adopts the theory of generative phonology which was developed by Chomsky and Halle (1968). All the data collected were transcribed and presented based on the four dialects used. However the data were finally classified and clearly analyzed based on the processes of: apheresis, apocopation, syncopation, metathesis and sound correspondence. The research revealed that, Kalam, Bara, Pikka, and GaJam dialects of Bole language are mutually intelligible in spite of their noticed variation.

## **CHAPTER ONE**

### **GENERAL INTRODUCTION**

#### **1.0 INTRODUCTION**

This chapter is primarily designed to explain the background of the study, historical background of the Bolewa people, geographical location, dialect areas, the statement of the problem and the aim and objectives. Moreover, in this chapter, the significance of the study, scope and limitation of the study are discussed. Henceforth the Bole sound system which entails: Bole consonants and vowels are discussed.

#### **1.1 Background of the Study**

Bole is a language of the Chadic family spoken in northeastern Nigeria in Yobe, Gombe, and Bauchi states. Newman (1977) classifies Bole more specifically as west Chadic A, Bole-Tangale major group. Among its closest linguistic relatives are Karekare, Ngamo, Bade, Ngizim, Duwai, and Maka in Yobe State. Kirfi, Galambu, Warji, Miya, and Pero in Bauchi State. Kanakuru in Gombe State. Angas, Sura, Mapun, Ankwe, and Kofyar in Plateau State, Tangale, Jukun and Pero among others in Gombe State. Greenberg (1963) listed the Bole-Tangale group of languages as group Idi, one of the major sub-groups of the West Chadic Language Group. Greenberg does not further sub-classify them,

but Schuh (1978:1) posits that, “there are two sub-groups within this group: southern sub-group made up of Tangale, Pero and Kanakuru; and a northern sub-group which includes Bolanci, Karekare, Ngamo, Magha, Deno, Kubi, Gera and Geruma”. The Hausa name for the Bole language is Bolanci, the name found in much of the published literature on Bole.

## **1.2 Historical Background of the People**

According to Meek (1931:289)

“The Bolewa and Jukun are of one blood and that they reached the confines of Nigeria in one wave of migration from the region of Abyssinia and the eastern Sudan, (called by them Yamal) between about the years 900 – 1000 AD. When they reached Kanem region, the Jukun followed a southern route to Shani and then to the Benue. The Bolewa took the northward route to Gurboli and Biri (all in Gombe area). After some time, some moved to Kalam and others to [an-Iski.”

Abraham, (1929:115) reported that:

“The Bolewa were originally from the East. When the whole ethnic group arrived in Kanembu, they split into two: the parents and the younger son of the royal family traversing the northern route and settling near Kukawa or Gazargamo area. And that the younger son, shortly after moved down to Dan-iski. While the elder son led his group down to Bagirmi, where they stayed for some times and from there he went to Shani and finally to Kalam”.

Alkali (1985:50) posits that, “Kalam was regarded as the most important Bolewa centre in the Gombe area. The Bolewa of Pikka/ [an-iski accepted the general claims of the primacy of Kalam: that Bolewa of Pikka was subordinate to Kalam. All the Bolewa say that Kalam was the ancestral

home of the Bolewa, which probably means that all Bolewa in the Gombe area trace their origin to Kalam. As the Kalam community expanded, various clans moved-out and established new settlements, but with Kalam still remaining as the centre of focus for guidance and spiritual well-being.”

Alkali (1985:38) earlier gave the assertion that:

“There were five ethnic communities occupying the Gombe area by the end of the 18<sup>th</sup> century. These were the Bolewa, Jukun, Tera, Jera, and Ful~e. The Bolewa lived in considerable numbers in what later became known as Dukku and Nafa]a districts, but they were more numerous in Dukku district. Their main centre for century before the jihad was at Kalam, a few kilometers west of Dukku town. Other Bolewa settlements long before the 19<sup>th</sup> century included Gerikom (now Kwami), Ga]am and Boju]e. There were also other settlements in Nafa]a district, such as Ngurboli (which became Riba]u during the jihad in 19<sup>th</sup> century) and Biri in the Wawa bush area that separated the two districts. They were also to be found in smaller settlements in the north-west of Akko district, such as Gabukka and [olli”.

Aliyu (2000:17) pointed that “the major Bolewa centres came into being through the four princesses of Inkil, Kalam, Fika and Kwami”. According to Meek, (1931:287):

“The earliest inhabitants of Gombe region, based on linguistic evidence were Tangale and Bolewa who have been resident in or near their present sites, probably for two thousand (2000) years. Their places in the past and present include: Bomala, Bolari, Gabukka, Riba]u (Ngurboli), Kwami, Kalam, Ga]am, Tappi, Boju]e, [olli, Dirri, Jore, Biri, Yame, Dawo,, Komi, Bomala and Bele towns in Kwami Local Government, Dukku, Akko, Gombe, Funakaye and Nafa]a Local Government Areas of Gombe state. In Bauchi state, the Bolewa occupy towns like Kirfi, Alkalari, Darazo and Bauchi. Consequently, they are found in Fikka, Gadaka,

Potiskum and Nangere Local Government Areas of Yobe State. Moreover, they are found in Wase Local Government Area of Plateau State and Karim-Lamido Local Government Area of Taraba State”.

“The language has the following alternate names: Bole, Bolanci, Bolewa, Bolawa, Bo da ladi, Bo pikka and Am pikka” (Schuh & Gimba, 2015:xi).

“It is believed to have being spoken in the following dialects: Fika (Pikka), Kalam, Kwami, Bara, and Inkil dialects” (Aliyu, 2000:22).

### **1.3 Dialect of Bole**

**Ga]am dialect:** It is predominantly spoken in Kwami town (Kafarati), Boju]e, Bomala, Bolari, Bele, Bukka and Ga]am.

**Kalam dialect:** Is the most widely spoken dialect in Gombe being the centre of Bolewa, which comprise of Dukku, Nafa]a Ngurboli, Biri [olli, Akko and Funakaye. However, Kalam town is about 90-100 kilometers from Gombe metropolis.

**Bara dialect:** It is predominantly spoken in Kirfi local government area, Al}aleri and Darazo situated in Bauchi State. Bara town is about 40 kilometers from Gombe metropolis along Gombe-Bauchi road.

**Pikka dialect:** It is predominantly spoken in Potuskum and Nangere local government areas of Yobe State. Pikka dialect is regarded as the standard Bole, because the most recent and standard Dictionary of Bole is based

on this dialect. And also it is the only existing emirate of Bolewa situated in Potuskum, called Pikka emirate.

#### **1.4 Statement of the Problem**

Linguists working on languages spoken within Nigeria paid much attention to major languages like: Hausa, Igbo and Yoruba. Studies on Bole linguistics have shown that there are very few descriptive works on the language. Furthermore it has been observed that no research of this nature that has been done on the dialectal variation of the Bole language. However, Bolewa are found considerably in Gombe, Yobe and Bauchi States. They all speak the same language with noticed variations. Does this dialectal variation make them mutually unintelligible or are they able to make adjustment to different phonological systems to maintain mutual intelligibility.

It has been assumed by some members of Kalam dialect, that the Pikka dialect is a different language, because of the noticed variations. This research examined the areas of mutual intelligibility of the speakers of these four dialects.

#### **1.5 Aim and Objectives**

The aim of this research is to study the dialectal variations that exist in the four dialects of Bole language with the following objectives as to:

- a- Identify the similarities and differences that occurs in the dialects.
- b- Investigate and analyse whether the four varieties have changed to the point where their speakers cannot communicate with one another; thus they remained mutually unintelligible?

### **1.6 Research Questions**

1. Are the four dialects of Bole language mutually intelligible?
2. What are the possible phonological processes that trigger the differences?
3. Are they able to make adjustment to different phonological systems to maintain mutual intelligibility?

### **1.7 Significance of the Study**

The principal value of any research work is that, if conducted well, it will produce positive results which will in turn contribute to learning. The Bole language is a language that is known and used primarily in only one Emirate (Pikka), although it is being spoken in some parts of Gombe, Yobe and Bauchi states among others. The language can safely be described as one of the minority languages that abound in the country. Not much documented literature is there about Bole, compared to its neighbours Kanuri and Hausa. This research will contribute generally to

learning and knowledge in general, and will bring out the Bole language to the general public.

Furthermore, the result of this study will serve as a useful reference material for speakers of the language and researchers alike.

### **1.8 Scope and Limitation of the Study**

This research work is to cover nine Local Government Areas of three states in north-east Nigeria, where Bole language is spoken. These Local Governments are: Gombe, Funakaye, Dukku, Nafaḷa, and Kwami, all in Gombe State, Kirfi, Darazo and Alḷaleri Local Government Areas in Bauchi State and Patiskum Local Government in Yobe State. The research is limited to the collection of adequate lexical items of all the existing dialects spoken across these nine Local Government Areas of Gombe, Bauchi, and Yobe States. The data will comprise nouns, pronouns, verbs, adjectives and prepositions of the language, to justify the intelligibility or otherwise of the dialects.

### **1.9 Bole Sound System**

It is important to introduce the sound system of the language under study. Every language of the world has an independent phonological system, reflecting the different sorts of sounds it has. The Bole phonetic chart adopted in this study is based on the Pikka dialect. This is because

the Pikka dialect is the one used for the literacy purpose as indicated in (Schuh & Gimba, 2015).

### 1.9.1 Bole Consonants

Gimba (2000:223) identified 29 consonantal sounds in Bole. The following are the Bole consonant phonemes chart.

	<b>Bilabia</b> l	<b>Alveola</b> r	<b>Palato- alveola</b>	<b>Palatal</b>	<b>Velar</b>	<b>Labio- velar</b>	<b>Laryngea</b> l
Plosive	p b	t d			k g		ʔ
Fricative		s z	ʃ				h
Affricate			tʃ dʒ				
Nasal	m	n		ɲ	ŋ		
Trill		r					
Lateral		l					
Approxima nt				j		w	
Prenasal	mb	nd nz	nɗʒ		ŋg		
Glottalized	~	]		ʔj			

Fig 1 Bole consonants chart, adopted from Gimba (2000:223).

### 1.9.2 Bole Vowels

According to Schuh and Gimba (2015:xi) Bole has five vowel systems and like most Chadic languages, it has a contrast between long and short vowels. Bole is unusual in having a length contrast for all five vowels, both within a word and word final. Most Chadic languages, if

they have mid vowels at all, have only the phonologically long variants, and for high vowels, a four-way contrast between long and short variants is often marginal and/or environmentally restricted. Bole does share with most other Chadic languages a prohibition against long vowels in closed syllables and the length distinction in high vowels is neutralized before glides.

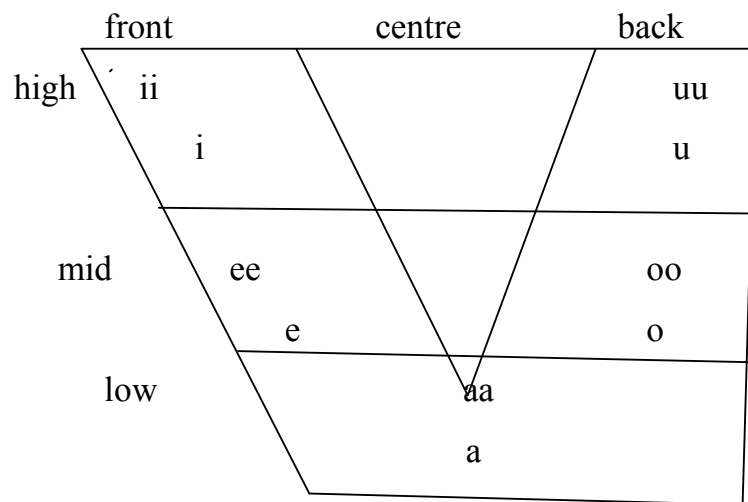


Fig 2 Bole vowel chart, adopted from Gimba (2000:223).

Bole also has a full set of diphthongs rising to the high vowels, but /ai/ and /au/ are restricted in occurrence.

ui      iu

ei      ou

oi      eu

ai      au

source: Schuh and Gimba (2015:xiv)

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.0 Introduction**

This chapter is a review of various scholarly works done by other researchers that are relevant to this research work. As the title of the research indicates, the study entails two issues; language variation (i.e. phonological variation) and dialectology. It is hence imperative to review the available literature on both the two.

#### **2.1 Reviews of Related Literature on Bole**

Although some works have been done on Bole language as it is done in many Nigerian languages, but prominent among such works is Abraham's (1929). Abraham took the task of making both a historical and linguistic study of Bole. He compiled a large number of Bole lexical items with some accompanying notes on grammar, and a comparative study of Bole morphology with other related languages. He claimed to have studied both Ga]am and Pikka dialects, but Gimba (2000) criticized by claiming that, he presented only one regional variety called Pikka.

Schuh (1978) presents sketches that proved to be of enormous value in comparative Chadic studies. This research is comprised of five Bole-Tangale groups of languages: Bele, Kirfi, Galambu, Gera, and Geruma.

He studied the phonology of these five languages, their numerals, noun plurals, independent pronouns, associative constructions, and perfective aspect which consist lexical classes, neutral form, direct and indirect objects. He furthermore discussed imperative, subjunctive, as well as verbs formation. Moreover he concluded with the English alphabetical wordlist. The alphabetical wordlist contains all the words elicited it in the five languages investigated. He also provides the Bole numerals from 1-100 indicating their tones. He says the noun plurals have HL tones and final -a, but if the root has only a single medial consonant, it is geminated as illustrated in (1) below:

<b>Singular</b>	<b>Plural</b>	<b>Gloss</b>
tèmshi	temka	sheep
mòndù	mònde	woman
dùumo	dùmme	guinea fowl
òoshi	uwwà	goat

Schuh's work is relevant and serves as valuable reference material for the present research, because it is on dialectal variation.

According to Gimba (1990), Schuh (1983) provides another work on Bole verbs and genitives. Bole verbs were categorized into five classes

depending on their tonal behavior in the tense/aspect/mood. A close examination of the work shows that it is based on the Kalam dialect, but no indication of that was made, nor any dialectal difference pointed out. The language is portrayed as if there are no variations in the dialects as suggested in Gimba (1990:8). Even though the present research does not limit its scope within only verbs, it intends to observe phonological variations and mutual intelligibility of these four dialects of Bole language.

Schuh (2001) studied palatalization in Bole and its consequent gemination. He asserted that “productive assimilatory processes cannot account for the large number of geminates in Bole. Relatively few geminate consonant in connected speech and essentially no geminate”. (Schuh, 2001:67) He establishes transparent phonological assimilations. Furthermore he provides examples of Bole dialect variants differing only in gemination to justify what he called gratuitous gemination. As exemplified in (2) below:

Pikka dialect	Ga]am dialect
bōlou	bòllau
háccàtà	hásàtà

His work is much relevant to the present research. However gemination is one of the phonological processes employed in the present research, as it caused variation in Bole dialects.

Gimba (1990) studied some common core features of language variation in Bole as used across regional boundaries (Gombe and Yobe State). One of the criticisms of this work is that the researcher tried to examine some features of phonology, morphology and lexis of GaJam and Pikka dialects. He neglected the other two dialects; Kalam and Bara. The present research has expanded to cover four dialects of Bole language, i.e. Bara, Kalam, GaJam and Pikka dialects respectively, but with limitation to some phonological aspects.

According to Gimba and Schuh (2015:ix) “Benton (1968) conducted a research which contains a substantial list of the lexical items of Bole language. These items are grouped under sub-headings based on parts of speech, with notes accompanying some of the sections. Although this work is a good treatment of the lexis of the language, it is only based on Pikka dialect.” One of the criticisms of this work is that, it mostly contains either obsolete or doubtful collections of Bole, some of the words are completely not Bole words, as proved by Schuh and Gimba (2015:ix).

Lucas (1981) in (Kraft, 1981:78) collected 434 lexical items, but with few notes on the phonology of the language. He also gave a list of some Bole consonants and vowels. Gimba (1990:9) asserted that Lucas' study is based on Ga]am dialect.

Zulyadaini (2008) studied the degree of lexical relationship between Bole and Ngamo languages, using lexicostatistic. He extracted 100 words from swadesh wordlist where the appropriate versions in the two languages are collected from native respondents of both languages. The cognates selected were analyzed using five phonological processes: apocopation, aphaeresis, syncopation, metathesis, and sound correspondence. Some examples of his findings are illustrated in (3) below:

<b>Bole</b>	<b>Ngamo</b>	<b>Gloss</b>
òsóki	òsò	bone
gàráŋ	gèrá	long
rèwé	rów	tree

In the above corpus, the /ki/, /ŋ/, /e/ segments in Bole have been apocopated to derive Ngamo version.

Though he is mindful with the negative critics associated with the used method, based on this, the results obtained should be seen as hypotheses, subject to rigorous verification from historical evidence. The present

study adopts same phonological processes, but only examine dialectal variation in Bole language.

Meek (1931) discussed extensively about Bole lifestyle; socially, politically, economically, morally and also religiously. He pointed out that, the difference in appearance, the Bole are darker than their neighbors. The women wear a full cloth and differentiated them from the Ngamo, Kare-kare, and Southern Ngizim, among whom the female attire is a rectangular strip of cloth in front and behind. Meek accompanied his discussion with a few note on the grammar of Bole language. He finally attached it with some list of Bolewa words, its transcription and gloss. Gimba (1990:10) criticized that, “some of the words that (Meek) used in transcription are not Bole and his attempt at giving phonemic representation is a failure. The compilation of his words list was also based on only one dialect, i.e. Pikka dialect.”

Schuh and Gimba (2012), describes a number of words that are hard to put into a well syntactic category and indeed they may not comprise a syntactic or semantic natural class. However, they further discuss the qualification operators and the contrastive operators which all serve sets of reference or events. Even though his work focused on syntax, perhaps it will aid the present research.

Schuh & Gimba (2015) provide standard and improved version of Bole-English-Hausa Dictionary. According to them “The improved dictionary contains 5100 Bole head words based on Pikka dialect thus. It was much expanded compared to its predecessors; the two earlier dictionaries. The new dictionary contains orthographic conventions, tones, diacritics and remarks on phonology as well as pronunciation variant and synonyms.” It also contains Bole ideophones as well as the dialectal differences between Kalam and Pikka. The present study depended on this dictionary as secondary source.

Schuh (2011) asserted that, “linguists have recognized since the 19<sup>th</sup> century that Hausa shares linguistic affinity with a fairly large group of languages (Chadic family)”. This similarity is evident from a number of cognate items, these phenomenons are shown in example (4):

<b>Gloss</b>	<b>Hausa</b>	<b>Bole</b>	<b>Ngizim</b>
four	hu]u	pò]]o	fe]u
eye	idòò	ìdò	da
back	baya	boi	bai
husband	mijì	mojì	mesek
die	mutù	motù	metu

drink                      shā                      sā                      sau

Schuh categorized cognate changes into four cognate items with minimal change, systematic sound changes. Change in meaning between cognate items, and finally changes in morphology. He suggested that “all languages change over time, as a language community spreads, speakers at the extremes diminish contact with any other or lose contact altogether” (Schuh, 2011:12). He also added that “changes take place in different parts of the community, which leads first to dialects that remain mutually intelligible, but as more and more changes accumulate over time, it leads to different languages” (Schuh, 2011:13). This work is relevant value to the present study.

## **2.2 Related Works on Other Languages**

Bello (1992) provides a comprehensive description of numerous Hausa dialects. His study concentrates on the analysis of the Hausa dialects in terms of phonetics/phonology, morphology and syntax. He potrays about ten dialects of Hausa, and outlines a relatively broad system for the transcription of each of the dialects. Bello developed two criteria: sound, which characterizes relevant sound correspondences distinguishing the Hausa dialects examined, and Morphology and Syntax, which serve to distinguish the numerous shapes of morphemes and words. He applies the relevant criteria to distinguish the significant features that characterize

each dialect. The recent study benefited from Bello (1992) regardless of their difference.

Juma'a and Mua'zu (2017) study the phonological process that leads to sound change and the attendant change of language. The study discusses processes such as: insertion, coalescence major classfeature change, metathesis, weakening and strengthening, syncope, apocope, vowel reduction and neutralization. They provide several examples from different languages including the Nigerian Arabic to justify the phonological variations that occur. This work will be of great help to this research as they both account for dialectal variation on phonological level of description.

Mu'azu and Katwal (2009) examine the lexical and phonological differences between Longmaar and Jibaana dialects of Miship language, where he claims that the dialects differ at the lexical level. The study discovered that some words differ in one or more sounds, while some words only differ in words used to express the same things. In the former, the study reveals that the difference lies in one or more letters in the both dialects. In the latter, the study reveals that the difference is apparent between the different forms of words with similar meanings in the two dialects. The change in their sounds is a complete one, with no correlation. In other words, the study demonstrates that there is an

alteration between the words in such a way that the morphological or grammatical links between the two forms in the dialects are no longer apparent but refer to the same thing. This work is also related to our area of interest in this research in that they both describe the dialectal differences in languages.

Mu'azu, M. A. (2010) discusses the dialects of Kilba language and identifies two dialects of the language, namely; Hong and Gaya dialects. He however regards Hong dialect as the prestigious and Gaya was regarded as less prestigious based on nonlinguistic evidences. The study reveals that the two dialects differ on lexical and phonological levels. He presents two types of the lexical differences of the Kilba dialects, namely; partial and complete lexical differences with several examples. The study also points a minor justification of the phonological variations that occur between Hong and Gaya dialects which includes variation in voicing /k/, /g/, and /t/, /d/. He claims that Hong dialect is associated with devoicing velar stop sound; the Gaya dialect on the other hand, voiced them. The study also buttress some pronunciation differences with similar meanings in the two dialects; the Hong uses a voiceless glottal fricative /h/, as in /hi/ 'you' plural. While Gaya dialect uses voiced palatal nasal sound /ny/ as in /nyi/ 'you' plural. The research is related to this one because they both treat phonological differences of dialects.

Mu'azu and Balami (2009) examine the lexical and phonological differences between Bura and Pabər dialects. The study discovers that there are differences in one or more letters in the two dialects and both lexical items carry the same meaning despite the structural differences that occur. The research identifies some phonological operations that lead to differences in Bura and Pabər dialects. They justify their claims based on consonant variation, palatalisation, consonant devoicing and consonant deletion.

Fannami and Mua'azu (2012) identify and discuss six different dialects of Kanuri language, namely: Manga, Mowar, Suwurti, Dagəra, Bilma and Yerwa/Central dialects respectively. They identify Yerwa/Central as the prestigious dialect and admit that the differences are realised based on lexical, pronunciation, phonetics, morphological, syntactic and semantic levels. They adopt and uphold the ideas of Bulakarima (1986) to present examples and buttress their position. The study pointed that at the level of pronunciation, there are situations where one or several words are pronounced differently. In some accent of Yerwa dialect, the word for *room* is *nəm* while in Mowar dialect and some other accents of Yerwa dialect it is pronounced as *njim*. In Manga dialect, however, it is pronounced as *gim*. This study will greatly help in accounting for the dialectal variation at phonological level in Bole language.

Nama'aji (2017) studied some phonological differences between Mara]anci and Standard Hausa with the objectives of examining some phonological changes, the environments, the causes and the results of the changes. His analysis entails consonantal changes, consonant vs. vowel substitution, vowel changes, diphthonization and degemination with relevant examples. Nama'aji's work is closely related to the present research, except that his study is on Hausa dialects.

Carlos and Haike (2011) revealed that “people speaking the same language will have different accents, depending on their social class and the region they grew up in. The same speaker speaking in the same style will systematically vary the pronunciation of the same word as a function of the phonological context.” They have given an example in the English spoken in North America. They also asserted that “phonologists have responded to this situation by assuming multiple levels of representation.” (Carlos & Haike 2011:72). They also use phonological processes that operate in certain linguistic contexts to explain the allegation. The present research will examine five phonological processes to analyze the collected data. These are:

- 1- Apheresis
- 2- Syncope

- 3- Apocopation
- 4- Metathesis
- 5- Sound correspondence

Lyons (2009) gave the dimension of language variation that is accounted for, in terms of the scale language-dialect-idiolect. He attempted to give the distinction between accents and dialects. According to him “the most obvious difference between the terms ‘accent’ and ‘dialect’ is that the former is restricted to varieties of pronunciation, whereas the latter also covers differences of grammar and vocabulary.” The present study will focus on the latter (i.e. dialect).

Musa (1996) used quantitative method to compare and quantify the degree of relationship between the varieties of dialects in Hausa. The researcher limited his study under seven dialects of Hausa i.e. Bausanci, Dauranci, Guddiranci, Kananci, Katsinanci, Sakkwatanci, and Zazzaganci. The research excluded some dialects, most especially those in Niger. For example Mara]anci, Goburanci, and so on. The ongoing research concentrates on phonology.

Syal & Jindal (2014) stated that “changes in language are bound to occur as change is natural. Language is a manifestation of human behavior; it cannot be static and fixed. Change is no doubt a very slow but sure process. It

sometimes go unnoticed and becomes markedly prominent only over a long period of time”. In their effort to verify the variation within a single language, two dimensions of studying language variation have been discussed: diachronic (historical) and synchronic (at a particular period of time). They took English language as an example. Synchronic variation can be studied under three headings:

- Varieties due to language contact
- Varieties of dialect
- Varieties of register

They have discussed solely on dialectal variation, starting with the definition, dialect map, dialect dictionary, diglossia, idiolect, and lastly highlight the differences between language and dialect. Relate area of present study and that of Syal and Jindal is where they said; “within a given language we have a number of dialects. Between two dialects there may be grammatical, lexical and phonological differences, even though they may have the same core system of language in common.” (Syal & Jindal, 2014:109). The four dialects of Bole language will be part of this example, as this study will justify.

Shimizu (1974) conducted a linguistic survey project in Plateau state, where initially the Swadesh 100 words list was collected from the Angas spoken at Pankshin, Garam, Kabwir, and Amper. From the data collected, he

discovered that the Angas language at the first two settlements was markedly different from that spoken in the last two settlements. Although, the differences did not seem to be so great, as to prevent mutual intelligibility. He also checked sixteen lexical items where he arrived at dividing the dialect into two i.e. the Hills Angas and Plains Angas (Pankshin and Kabwir). The former is closer to Pankshin, while the latter is more to Kabwir. His study is so relevant to the present research, because Angas and Bole are descendant of the Proto Chadic language.

In summary from the review of literature, we have found that Gimba (1990) compared two major dialects of Bole language (Pikka and Ga]am), and also Schuh (2001) compared Pikka and Gadaka dialects. The present work is determined to examine the similarities and differences of the four dialects of Bole spoken within Gombe, Yobe, and Bauchi States.

## **CHAPTER THREE**

### **METHODOLOGY AND THEORETICAL FRAMEWORK**

#### **3.0 Introduction**

To obtain relevant data, it is necessary to plan on how to get the information needed, and the type of instruments to be used in gathering such information. This chapter therefore, described the methodology that was used by the researcher in obtaining relevant information for the study. Additionally, this chapter also consists of; the research design, population of the research respondents, data collection procedure, method of data collection, sample size of the research, sampling techniques, as well as the method of data analysis was discussed.

##### **3.1.1 Research Design**

This research work investigated, and analysed some dialectal variation in four Bole dialects. It involved fieldwork which covered some major Bole dialects of north-eastern Nigeria.

##### **3.1.2 Research Population**

In an academic research, population refers to the total number of the target group that can be persons, items, elements, events, entities or objects intended to be studied. Consequently, the people selected and used in this study are native speakers of the Bole language. A total

number of sixteen people participated in the exercise with different groups from these four dialects of Bole language.

### **3.1.3 Instrument**

This research will use audio-tape recording to collect raw data; audio-tape recording reduces the tendency of selection in data collection and it also allows for play back which facilitates better data analysis.

### **3.1.4 Data Collection Procedure**

Multiple methods were used in collecting the data which involved a number of visits, interviews and interactions with the speakers of the dialects. A good and friendly atmosphere was maintained during the field visit which gave room for good relationship and proper data collection. Interviews conducted with the native speakers of the dialects involved verbal and written questionnaires are used. The questionnaires consisted of 200 words, selected out of Swadish wordlist (1955). These words were translated into Hausa, to arrive at the correct pronunciation. Because most of the target respondents are not literate, i.e. they did not understand English language. Meanwhile Hausa is the simplest medium of communication between the researcher and the respondents.

### **3.1.4 Method of Data Collection**

Sample size refers to a process through which a researcher voluntarily source for helpful relevant and vital information concerning the designed research questions of the study, with the sole purpose of providing answers to them. However the method of data collection was broadly divided into two:

- a- Quantitative technique
- b- Qualitative technique

But in this research only the latter was employed in sourcing the data, because the research is not statistics.

### **3.1.5 Sampling**

Sampling technique is a device or tool employed by the researcher in the careful selection of representative members, elements, entities or objects from a given population. So in carrying out this research work, the entire representative members of the whole research population were randomly selected. Therefore, simple random sampling technique was used.

### **3.1.6- Sample Size**

In order to succeed in conducting this research, the sample size of the population of the research was reduced into a more manageable and sizeable portion to enable the researcher to come up with a proper,

accurate and factual result or finding and to avoid sampling error. The total number of sixteen people participated in the exercise: four informants from each dialect of Bole language regardless of their gender. The participants were selected preparably from various villages of three States. i.e. Bauchi, Gombe and Yobe States.

### **3.1.7 Problems Faced During the Research**

The major problem faced is, some of the target audience of the Bole people were either not approachable or are very shy to answer any question. Others were suspicious or afraid. The observation method was applied in some of the situation because the native speakers would not be in the picture of what is going on.

### **3.1.8 Method of Data Presentation and Analysis**

This refers to an explanation regarding the method or procedure followed by a researcher in analyzing and presenting data. The data collected from the field were presented and analysed based on some phonological processes. These processes included:

- 1- Aphaeresis
- 2- Syncope
- 3- Apocopation
- 4- Metathesis

## 5- Sound correspondences

### 3.2 Theoretical Framework

This research adopted the theory of generative phonology, which was developed by Chomsky and Halle (1968). The aim of the theory is to consider a more abstract representation which will be called an underlying representation that allows phonological rules and principles to be more transparently and economically stated. Harrington (2007:67) asserts that;

“The emphasis in the sound pattern of English is to eliminate redundancy from phonological analyses and fill them in by rule. This is done mostly by representing words using the phonemic rather than a phonetic representation. For example, there are some aspects of pronunciation that are redundant (e.g. aspiration of oral stops in English) and so this redundancy can be factored out and subsequently fill it in by rule that will in turn end up with a considerably more abstract sound representation of the word”.

There are certain formal conditions which a phonological description must fulfill:

- 1- Representations must be organized into sequences of segments and boundaries.
- 2- Segments are specified in terms of distinctive features.

In making a preliminary phonological analysis of the data at hand, the essence of this is to identify the common parts of the words with similar sound. It is not always the case that one finds out a phoneme in the

language under investigation may corresponds to more than one sound in other dialects.

Determining the phoneme alternants and the phonological relations that exist between them, there is need to construct a phonological feature matrix for the identifying contrasting sounds of the language as evident in the data at hand. In setting up an underlying representation for each phoneme, and giving the phonological rule necessary for accounting for the phoneme alternations: each phoneme should have just one unique underlying representation. In some cases, the underlying representation of an alternating phoneme may not correspond to any of its phonetic realisations. In complex cases even a no-alternating phoneme may have an underlying representation that differs from its phonetic realisation. The two main criteria for setting up underlying representations are the predictability criterion and the unnaturalness of the rule required.

## CHAPTER FOUR

### DATA PRESENTATION AND ANALYSIS

#### 4.0 Introduction

This chapter deals with the presentation and analysis of the data gathered on the four different dialects of Bolewa language. The first part of the chapter examined the different aspects of phonology; i.e. *aphaeresis*, *apocopation*, *metathesis* and *syncopation*. The second part analyses sound correspondence, which includes simplification, i.e. voicing and gemination.

#### 4.1 Data presentation and Analysis

This part is devoted to the analysis and interpretation of the raw data gathered on the language from the four Bole dialects. The objective is to identify specific similarities and differences, with regard to the way words are uttered in each of the four selected dialects of the language.

##### 4.1.1 Aphaeresis

“This is defined as a loss or omission of one or more segments from the initial position of a word,” (Trask, 1996:27). This can be seen in some of the examples cited on next page in example (5a-g):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	ájàp	wājàbì	wājàbì	lājàbì	surprise
b	ùntí	wùntí	wùntí	wùntí	nose
c	òsí	wòsí	wòsí	wòsí	fire
d	wódì	ódì	ódì	ódì	barking
e	gàa shèkè	shèkè	shèkkè	shèkkè	foot
f	‘yúwu	íwí	ngó~~í	ngó~~í	hold
g	áyándí	yàndì	sàmìntè	kù]ùwò	ants

It is observed from the examples (5a, b and c) above, that there is deletion of the initial velar approximant sound /w/ before a non front vowel in the first syllables, Pikka dialect undergo the processes of aphaeresis, where as the initial /w/ sound was deleted eg. as in *ùntí* and *wùntí*.

Consider this rule1:

$$w \rightarrow \emptyset \quad / \quad \# \text{ --- } \overset{V}{\left[ \begin{array}{l} - \text{front} \\ - \text{cons} \end{array} \right]}$$

The above rule is interpreted as, labio-velar approximant /w/ is lost before non-front vowel. Therefore, it will account for examples (5a – d).

In (5d) Pikka has the insertion of labio-velar approximant sound /w/ at the initial position. i.e *wódì*, thus it was lost in Bara, Kalam, and Ga]am dialects respectively; where they pronounce *ódì*. This shows that *òdì* is

the original form, as it appeared in the majority of the dialects. Meanwhile Pikka, which has been realized as the underlying form (standard Bole) have insertion of /w/ sound at the word initial. In (5e) the Pikka [ga] the first syllable (*gàa shèkè*) was lost in Bara, *shèkè* Kalam and Ga]am dialects *shèkkè*. In (5g) also the /a/ short low-central vowel was lost at the initial position in Bara dialect. i.e. *áyándí* versus *yàndì*. Therefore, the aphaeresis takes place to drive the Bara version.

#### 4.1.2 Apocopation

“This is defined as a term used in comparative philology, and sometimes in modern phonology, to refer to the deletion of the final element in a word; often contrasted with aphaeresis and syncope” (Crystal, 2008:31).

As shown in the following examples, Pikka dialect seems to have more of this process compared to the other three dialects. as illustrated in (6a-l) below:

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	dòm	dòmí	dòmí	dòmí	blood
b	kòm	kwámì	kwámì	kwámì	cow
c	shìm	sìmì	sìmì	sìmì	cough
d	ùzúr	ùzírì	ùzírì	ùzírì	dust
e	ìnkó	ìnkó	ìnkwán	ìnkó	because

f	dà]] àkí	dà]] à	dà]]à	dà]] à	bitter
g	óllòkí	óllò	óllò	óllò	smoke
h	~ò~òkí	bò~ò	bò~ò	bò~ò	deer
i	kùrùm	kùrù	kùrù	kùrù	finger nail
j	~álùm	~álù	~álù	m~álù	horn
k	bù'ùm	bù'ùŋ	bù'ù	bù'ù	black
l	mòsìn	mòsì	mòsì	mòsì	beer

From the above examples it is observed that, in items (6a, b,c and d) a high-front unrounded vowel /i/ was apocoped at the environment of word final, in Pika dialect when it is preceded by non strident sound. This shows that, the pronunciation of the other dialects might be the proto-form of the words. i.e. *dòmí*, *kwámì*, *sìmì* and *ùzírì*.

Rule2:

$$\begin{matrix} \text{V} \\ \left( \begin{matrix} + \text{high} \\ - \text{back} \end{matrix} \right) \end{matrix} \longrightarrow \emptyset / \text{C} \text{ — } \#$$

The above rule states that, a high-front unrounded vowel is lost at the final boundry of word, after a non-strident consonant.

In (6e) the Kalam dialect has insertion of alveolar nasal sound /n/, e.g. *ìnkó* versus *ìnkván*. One notable thing with category (6f, g and h) is that all Pikka words ending with [ki], the [ki] syllable was apocoped in

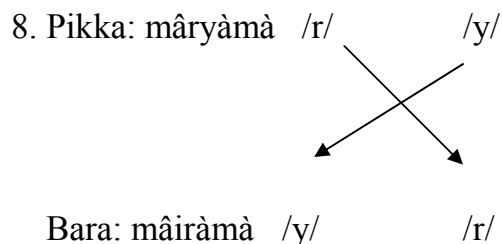
other three dialects. In (6i, j and k) the voiced bilabial nasal sound /m/ of Pikka was apocopated to derive Bara, Kalam and Ga]am vasion. The same procedure was applied in (6l) where /n/ a voiced alveolar nasal sound was lost at the final position of Bara, Kalam and Ga]am dialects. i.e. mósìn versus mósì.

#### 4.1.3 Metathesis

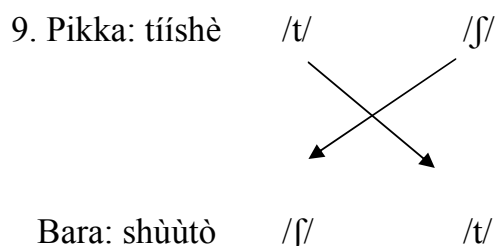
According to Trask (1996:222) metathesis refers to “narrowly, an exchange in the position of two segments in a word, either as a historical change or as a synchronic rule”. The following examples show that there is transposition of sound from one place to another in the dialects as exemplified below in (7a &b):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	maryàm	mairàmà	maryàmà	maryàmà	princess
b	tiisho	shùùtò	tiishè	tiishé	right side

These transform can be seen in this way:



As a result of this change the Bara high front vowel /i/ is realized as a palatal approximant sound /y/ in other three dialects. An additional instance of metathesis can be seen in the following word, thus:



The above substitution triggered the change of a long high-back rounded vowel /u:/ to mid-front unrounded vowel /e/. And a mid-back rounded vowel /o/ also changes to a long high-front unrounded vowel /i:/, after the transposition of the first syllable “shuu” in Bara to the second syllable in Pikka “she”. This movement influences the changes of the /u/ vowel in Bara to /e/ vowel in Pikka.

Rule3:      y    →    [ i ] / # CV    —

r      y      >      y      r

1      2      >      2      1

#### 4.1.4 Syncopation

“This is a term used in comparative philology, and sometimes in modern phonology, to refer to the deletion of a segment within a word; often

contrasted with aphaeresis and apocopation” (Crystal, 2008:469).

Examples include the Bole pronunciations of such words below (10a-f):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	‘yópōbùm dòm	déppá dòmì	yóppá dòmì	‘yóppá dòmì	bilharzias
b	dàlìntà	dàntà	dàntà	dàntà	sweet
c	mbùkùm	mbùmí	bòmò	mbùmí	blind
d	bùkù]í	bùn]ì	bùnzí	bùkù]í	dirt
e	‘yerwè	‘yerwè	èrèpí	lísì	embers
f	rùbbù	rùwà]í	ròsì	rùbbò	scratch

From the above examples, it is observed in (10a) that, the medial segments [bum] of Pikka dialect was lost in Bara, Kalam, and Ga]am, as in ‘yópōbùm dòm versus ‘yóppá dòmì. In (10b) the medial syllable “li” in Pika was also lost in Bara, Kalam, and Ga]am, as in *dàlìntà* versus *dàntà*. In (10c) the medial syllable “ku” in Pikka was lost in Bara, Kalam, and Ga]am, as in *mbùkùm* versus *mbùmí* and *bòmò*. The same thing in (10d) where the medial syllable “ku” in Pikka and Ga]am was lost in Kalam, and Bara i.e. *búkù]í* versus *bùn]ì* and *bùnzí*.

Rule4:

$$[ku] \rightarrow \emptyset \quad / \quad \text{---} \quad \left( \begin{array}{c} + \text{ cons} \\ + \text{ ant} \end{array} \right)$$

The above rule revealed that, [ku] segments was lost at the environment of word midial position, before an anterior consonant.

There is medial consonant delition as far as (10e) is concerned. The labio-velar approximant /w/ of Pikka was syncopated in Kalam, whereas Bara dialect maintains cordial relation with the underlying form. With regard to example (10f), the four dialects expressed the words in different ways, though they share the same meaning. The word rendition of Bara undergoes the prosses of syncopation, i.e. *rùwà]í*. The [wa] medial syllable was deleted in other three dialects under study, i.e. *rùbbù* and *ròsì*. One notable thing with the above examples is that, most of the Pikka words have the insertion of a syllable within the medial position with the exemption of (10f) where Bara dialect undergoes the same process.

## 4.2. Sound Correspondence

Trask (1996:328) also described sound correspondence as “Any phonological change in which certain segments are systematically converted into phonetically different segments”. Moreover, it is one of the most prominent processes that contributed in determining cognate

correspondences among the four dialects of Bole. The following sound changes can be ascertained in the dialects:

#### 4.2.1 Vowel Sound Change

Bole language as earlier noted in 1.9.2, has seven vowels, and the occurrences of these vowels in the dialects bring about differences as the following data revealed:

##### 4.2.1.1 Vowel Lowering

This is a process in which a high or mid vowel is lowered to low position in word. There are quite a number of words in which the high-front vowel /i/ is lowered to mid-front vowel /e/, at the word final position after non-strident consonant. Consider the following examples (11a-c):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	tùbbì	tùbbè	tùbbè	tùbbè	push
b	òshókí	òsókí	òsókí	òsóké	bone
c	kōyí	kò'í	kò'é	kò'í	head

With the list supplied in examples above, it is worth noting that; in (11a) a short high-front unrounded vowel /i/ of Pikka corresponds to /e/ a short mid-front unrounded vowel, in final position of the other dialects; i.e. *tùbbì* versus *tùbbè*. In item (11b) the Pikka short high-front unrounded vowel /i/, corresponds with a short mid-front unrounded vowel /e/ in

Ga]am. i.e. *òshókí* versus *òsóké*. While in (11c) two changes happen. first, a short high-front unrounded vowel /i/ changes to a short mid-front unrounded vowel /e/ in Kalam. i.e. *kōyí* and *kò'í* versus *kò'é*. second, the substitution of semi-vowel (palatal approximant) /j/ realized as glottal stop /ʔ/; i.e. *kóyí* and *kó'í* in Bara, Kalam and Ga]am dialects.

Rule5:

$$\begin{matrix} \text{V} \\ \left( \begin{array}{c} + \text{ high} \\ - \text{ back} \end{array} \right) \end{matrix} \longrightarrow \begin{matrix} \text{V} \\ \left( \begin{array}{c} - \text{ high} \\ - \text{ low} \end{array} \right) \end{matrix} \quad / \text{---} \#$$

The above rule shows that /i/ vowel becomes /e/ vowel at the word final position.

A short-back rounded vowel /u/ is lowered to a short low-central unrounded vowel /a/, this phenomeno is exemplified in (12a-d):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	‘yúwu	íwí	ngó~~í	ngó~~a	hold
b	póóru	póóri	póóri	póóra	say
c	ònù	ònī	óná	óná	give
d	mbùzàm	ámبísà	ámبàrà	mbùzà	hunter

An observations from the above exmples is that, most of these sound correspondants occur at the word final position, in an environment where a substituted vowel is preceded by non strident consonant. With the ecception of (12d). In (12a) a high-back rounded vowel /u/ of Pikka

corresponds with a high-front unrounded vowel /i/ in Bara, at the word final position, i.e. *ʔúwu* versus *íwí*. While in Kalam a high-front unrounded vowel /i/ is lowered to a short low-central unrounded vowel /a/ in Ga]am; at the environment of word final, i.e. *ngó~~í* versus *ngó~~a*. In (12b) the Pikka high-back rounded vowel /u/ corresponds with Bara and Kalam front-high unrounded vowel /i/ and Ga]am low-central unrounded vowel /a/, at the word final position, i.e. *póóru* versus *póóri* and *póórá*. In (12c) the Pikka high-back rounded vowel /u/ corresponds with Bara high-front unrounded vowel /i/, Kalam and Ga]am low-central unrounded vowel /a/ at word final position, i.e. *ònú* versus *óní* and *óná*. In (12d) also two changes occur within the medial position of the word. The first one is that, Pikka high-back rounded vowel /u/ corresponds with Kalam low-central unrounded vowel /a/; i.e. *mbùzàm* versus *ámbará* at the second syllable. Secondly Pikka /u/ vowel is realized as high-front unrounded vowel /i/, at the second syllable of Bara dialect; i.e. *mbùzàm* versus *ámbíà*. However the rendition of Ga]am dialect remain cordial to that of the underline form as far as vowel is concern, i.e. *mbùzàm* versus *mbùzà*.

Rule6:

[u] → [a] / — #

This rule shows that, a high-back rounded vowel /u/ in Pikka is substituted with low-central unrounded vowel /a/ at the final boundry of the word in other dialects.

A short mid-back rounded vowel /o/ is lowered to short low-central unrounded vowel /a/, as illustrated in (13a-e):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	bátí	bónnà	lávúndò	bónnò	daughter
b	kòm	kwámī	kwámī	kwámī	cow
c	kòsúm	kwású	kòsú	kòsú	mouse
d	gónsà	ròmón	gwànsà	gwànsá	bad
e	kè~è	kòryà	kwàryà	kòríyà	cloud

From the examples in thirteen above, it is observed that this substitution is variably found in the four dialects. In (13a) the short low-central unrounded vowel /a/ of Pikka corresponds with a short mid-back rounded vowel /o/ in Bara and Ga]am, at the position of first syllable. i.e. *bátí* versus *bónnà* and *bónnò*. This item also revealed a very striking difference especially in Kalam. This is what is called non-cognate. In (13b, c, and d) also two changes occur in the first syllable position. The first one is that, Pikka mid-back rounded vowel /o/ corresponds with

Bara, Kalam and Ga]am short low-central unrounded vowel /a/ at the first syllable. eg. *kòm* versus *kwámī*.

Rule 7:

$[o] \longrightarrow [a] \ / \ C - C$

The rule above states that, a mid-back rounded vowel /o/ became a low-central unrounded vowel /a/ when it appears inter-consonantly.

Secondly, is the occurrence of the labialized velar plosive sound /kw/ in place of the velar plosive sound /k/, before a low-central unrounded vowel /a/.

Rule 8:

$[k] \longrightarrow [kw] \ / \ \begin{matrix} V \\ \# - \begin{pmatrix} +low \\ - cons \end{pmatrix} \end{matrix}$

#### 4.2.1.2 Difference in Vowel Length

This is a situation that deals with making vowel sound actually longer than they are. In the following examples, a short low-central unrounded vowel /a/ is realized as long low-central unrounded vowel /a:/. While a short mid-back rounded vowel /o/ is realized as a long mid-back rounded vowel /o:/ as shown below in (14a-d) in the next page:

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	ā̀rù	ā̀rù	à̀rú	à̀rú	sing
b	sā̀tò	sátò	sā̀tò	sā̀ò	morning
c	gā̀ré	gáré	gā̀ré	gā̀ré	lizard
d	~ā̀dí	~ā̀dí	~ā̀dí	m~ā̀dí	knife

From the above data we can observe that, a low-central unrounded vowel /a/ became lengthened when the vowel sound occurred before a coronal sound. In (14a) a long low-central unrounded vowel /a:/ of Pikka is realized as a short low- central unrounded vowel /a/ in Kalam and Ga]am at the position of word's initial. i.e. *ā̀rú* versus *à̀rú*. Subsequently in (14b and c) Pikka, Kalam and Ga]am long low-central unrounded vowel /a:/ is realized as a short low-central unrounded vowel /a/ in Bara first syllable. i.e. *sā̀tò* versus *sátò*. In (14d) there are two issues to be discussed. The first one is consonan change, which will be discussed under (4.2.2), and the second one is vowel lengthening. Pikka long-low central unrounded vowel /a:/ is realized as a short low-central unrounded vowel /a/ in Ga]am at the first syllable. While the other two dialects, (Bara and Kalam) complied with the underlying form.

Rule 9:

$$\begin{matrix} \text{V} \\ \left( \begin{matrix} + \text{long} \end{matrix} \right) \end{matrix} \longrightarrow \begin{matrix} \text{V} \\ [-\text{long}] \end{matrix} / \# \text{C} \text{ —}$$

+ low

The above rule states that, a low-central unrounded vowel /a/ became lengthened when the vowel sound occurred before a coronal consonant.

The following examples also shows how a short mid-back rounded vowel /o/ is realized as a long mid-back rounded vowel /o:/ as shown in (15a-e)

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	<i>lōlò</i>	<i>lōlō</i>	<i>lōlò</i>	<i>lōlò</i>	cotton
b	<i>zùrò</i>	<i>zùrō</i>	<i>zùrò</i>	<i>zùrò</i>	laugh
c	<i>kōm</i>	<i>lèlé</i>	<i>kòwó</i>	<i>gòmòkí</i>	buffalo
d	<i>mònú</i>	<i>nímánkó'í</i>	<i>mōnà</i>	<i>mōnà</i>	know
e	<i>bòo</i>	<i>bòo</i>	<i>bòo</i>	<i>mbò</i>	mouth

From the above examples we can observe that, in (15a, and b) a short mid-back rounded vowel /o/ of Pikka is realized as a long mid-back rounded vowel /o:/ in Bara, at the word final position; in item (15a) i.e. *lōlò* versus *lōlō*. And in (15b) is *zùrò* versus *zùrō*. The rendition of the Kalam and Ga]am complied with that of the underlying form. In (15c) a long mid-back rounded vowel /o:/ of Pikka is realized as a short mid-back rounded vowel /o/ in Kalam, first syllable. i.e. *kōm* versus *kòwó*. For Bara and Ga]am, even though the words *lèlé* and *gòmòkí* differ in respect of

spelling and pronunciation, it will be interesting to note that they are all variations of the same word meaning “buffalo”. All the four words are indistinguishable in meaning. This shows the richness of vocabulary in Bole language. In (15d) a short mid-back rounded vowel /o/ of Pikka is realized as a long mid-back rounded vowel /o:/ in Kalam and Ga]am dialects respectively.

Rule 10:

$$\begin{array}{c} \text{V} \\ \left( \begin{array}{l} + \text{long} \\ - \text{high} \\ + \text{back} \end{array} \right) \longrightarrow \begin{array}{c} \text{V} \\ [-\text{long}] \end{array} / \quad \text{C} - \text{C} \end{array}$$

The above rule states that, a long mid-back rounded vowel /o:/ became shortened when the vowel sound occurred interconsonantly.

#### 4.2.2 Consonants Sound Change

This is a linguistic process where a consonant is replaced by a completely different consonant in some environments within a word. As observed, the four dialects of Bole under study have some differences in their consonant sounds. And that those Pikka words have undergone some phonological alternations to fit into the three residual dialects speech system. As such, this section looks at some of the consonantal changes that occurred. The analyses are made under the following aspects:

#### 4.2.2.1 Phonemic Alternation

Although the alveolars /d/, /r/, /s/, /t/ and /z/ are phonemes in all the dialects under study, they are also in morphophonemic alternation with their palatalized counterparts; /tʃ/, /dʒ/, /ʃ/ and /j/ respectively before high-front vowel /i/. This is found in the dialects examined and was illustrated in the following examples as illustrated in (16aa-g):

	PIKKI	BARA	KALAM	GA[AM	GLOSS
a	shim	sìmi	sìmi	sìmi	cough
b	sèèshí	sèèshí	sèèsí	sèèshí	drink
c	àushí	àurì	àushí	àushí	river
d	ga jīwò	zīwò	dīm fâ	zīwò	fat
e	bùn jì	bùkù jì	bùn zì	bùkù jì	dirt
f	mò jì	mò zì	mò zì	mò zì	husband
g	dùù jì	dùù zì	dùù zì	dùù zì	owl

It can be observed from the above examples that, these changes are variably hapening within the four dialects of Bole. Palatalization takes place in items (16a) at the initial possition in Pikka, where /s/ a voiceless alveolar fricative sound of the other dialects, changes to /ʃ/ a voiceless alveo-palatal fricative in Pikka. With regard to (16b) the Kalam rendition became odd, where /s/ sound corresponds with /ʃ/ at the word final

position. While in (16c) a voiced alveolar liquid /r/ of Bara corresponds with a voiceless alveo-palatal fricative /ʃ/ at the word final position of the other dialects. An observation from the examples (16d, e, f and g) is that, de-affrication rule takes place. Where in (16d) the Pikka initial /dʒ/ voiced alveo-palatal affricate sound is realized as a voiced alveolar fricative sound /z/ i.e. *ga jīwò* versus *zīwò*. At the final position of (16e) Pikka voiced alveo-palatal affricate sound /dʒ/ is realized as a voiced alveolar fricative sound /z/ in Kalam, i.e. *bùnjì* versus *bùnzí*. In (16f, and g) also Pikka final /dʒ/ is realized as a voiced alveolar fricative sound /z/ in other three dialects. i.e. *mòjì* versus *mòzì* and *dùùjì* versus *dùùzì*.

$$\text{Rule11:} \quad \left[ \text{alveolar cons} \right] \longrightarrow \left[ \text{palatalized cons} \right] \quad / \quad \begin{matrix} \text{V} \\ \left( \begin{array}{l} - \text{ back} \\ + \text{ high} \end{array} \right) \end{matrix}$$

The above rule states that, an alveolar consonant is realized as palatalized consonant when the consonant sound occurred before a high-front vowel.

#### 4.2.5 Voicing

Voicing is a phonological process where a voiceless consonant sound changes to a voiced sound. The consonants that undergo the process are /s/ and /k/ at the environment of word initial position or where a voiceless alveolar fricative sound /s/ comes before a low-central vowel /a/ or high-front vowel /i/, as the following examples show as exemplified (18a-e):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	mbòsìní	mbòzìní	bòzìní	bòzìní	counting
b	sārò	zārò	sārò	sārò	grass
c	mbùzàm	ámbíà	ámbarà	mbùzà	hunter
d	kààkí	ŋgààkí	ŋgààkí	ŋgààkí	magpie
e	sàrgà	kèccè	jàŋgà	jàŋgà	latrine

From the rendition of the above data; it is observed that this simplification is variably found in the four dialects. In (18a) a voiceless alveolar fricative sound /s/ in Pikka is realized as voiced alveolar fricative sound /z/ in other three dialects, at the midial syllable. i.e. *mbòsìní* versus *mbòzìní* and *bòzìní*. In (18b) a voiceless alveolar fricative sound /s/ of Pikka is realized as voiced alveolar fricative sound /z/ in Bara initial position. i.e. *sārò* versus *zārò*. While in Kalam and Ga]am the change does not occur. In (18c) the Pikka /z/ sound is devoiced to /s/ sound in Bara, and replaced by a voiced alveolar sound /r/ in Kalam, at the final syllable. i.e. *mbùzàm* versus *ámbíà* and *ámbarà*. In (18d) the voiceless velar plosive sound /k/ in Pikka is realized as voiced velar plosive sound /ŋg/ in Bara, Kalam and Ga]am, at the word initial position. i.e. *kààkí* versus *ŋgààkí*. In (18e) the /s/ sound at the initial rendition of Pikka is realized as /dʒ/ voiced alveo-palatal affricate sound in Kalam and Ga]am. i.e. *sàrgà* and *jàŋgà*.

Rule12:

$$\begin{array}{ccc} \text{C} & & \text{C} & & \text{V} \\ \left[ - \text{voiced} \right] & \longrightarrow & \left[ + \text{voiced} \right] & / & \left[ - \text{back} \right] \text{ —} \end{array}$$

The rule above is interpreted as; voiceless consonant becomes voiced when it appears before a non-back vowels.

#### 4.1.5.4- Degemination

This refers to a process in which double consonant sounds are reduced to a single one. From the example (19a) below; the combination of voiceless alveolar plosive sound /tt/ in Bara and Kalam becomes degeminated to a single alveolar plosive sound /t/ in Ga]am. In (19b) the double velar plosive sound /kk/ in Bara, was simplified to a single velar plosive sound /k/ in Ga]am. In (19c) also the double /kk/ in Kalam and Ga]am was simplified to a single one in Pikka and Bara. In (19d) the double bilabial implosive sound /~/ in Pikka becomes single in other three dialects. In (19e) the double /tt/ in Pikka becomes a single one in other three dialects. In (19f) the double voiced alveolar fricative sound /zz/ in Ga]am becomes a single /z/ in Pikka. In (19g) the Bara double sound of /kk/ becomes a single /k/ in Pikka. And lastly in (19h) the same double sound of /kk/ is simplified to a single /k/ in Pikka dialect as shown in (19a-h):

	PIKKA	BARA	KALAM	GA[AM	GLOSS
a	shòttú	shòttú	sòttú	yàtú	throw
b	cáppí	shákkí	cákí	shákí	all
c	gà shèkè	shake	shékkè	shékkè	foot
d	~ò~òkí	bó~ò	bó~ò	bó~ò	deer
e	ndètti	ndèti	ndèti	ndèti	come
f	ázìn	ajìn	ázzì'è	ázzì'è	guts
g	túkúlí	tòkkòl}óshí	té~	mbòrók	goiter
h	shèkè	shékkè	shékkè	shékkè	leg

Rule13:

$$CC \longrightarrow C \quad / \quad V - V$$

The above rule states that double consonants are reduced to single consonant intervocalically.

#### 4.3.0 Conclusion

From the data analysis done in the above tables, it is evidently clear that the variations among the dialects of Bole language are mainly phonological, i.e. they result from the phonological processes discussed in the said examples. Phonemic change seems to be more prominent in this instance. This development does not however brings about meaning differences in the data analyzed, hence, the four dialects remain mutually

intelligible, despite the presence of some few non cognate words across the dialects under study. And also it proved that, the four varieties have not changed to the point where there speakers cannot communicate, thus they remained mutually intelligible.

## **CHAPTER FIVE**

### **SUMMARY AND CONCLUSION**

#### **5.1 Summary**

The research work is basically on phonological variation in the dialects of Bole language. Namely: Pikka, Bara, Kalam and GaJam, from Yobe, Bauchi and Gombe states. The first chapter viewed some important concepts in research work. i.e. introduction, background of the study, historical background of the Bolewa people, the settlements of the people, statement of the problem, the aim and objectives, the significance of the study, and scope and limitation. The research aimed at identifying if the different dialects of Bole are mutually intelligible. And also the Bole sound system were discussed. In the second chapter, some related and relevant works to the present research were reviewed. In the third chapter, the method through which data are collected, and the theory that has been adopted for analyzing the data were discussed. While the fourth chapter comprised the bulk of the research work. All the data collected were transcribed and presented based on the four dialects used. And finally, the data were classified and clearly analyzed based on processes of apheresis, apocoptation, syncopation, metathesis and sound correspondence. The fifth chapter, which is the final chapter, contained the summary and conclusion of the research.

## **5.2 Conclusion**

In conclusion, the result of the analysis vividly shows that the variations are noticeably mostly in sound. Because all the sounds that show variation consequently have sounds that correspond in the other dialects. In most lexes, even the numbers are the same as well as the meaning and numbers of non-cognate are only but few, which is a clear indication that the dialects of Bole language are mutually intelligible. Thus making them different styles of the same language.

## **Bibliography**

- Abraham, R.C. (1929). *The Bolanchi Language and the Conclusion to be Drawn from it*. Kaduna Archives. Unpublished.
- Abubakar, A. (1983). *Hausa Generative Phonology*. PhD Thesis, University of London.
- Abubakar, A. (2000). Gemination in Sakkwatanci. *MAJOLLS\_Vol. III*, 2000: Department of Linguistics, University of Maiduguri.
- Aliyu, S.A. (2000). *Gombe State: History of the Land and the People*. Zaria: ABU Press Limited.
- Alkali, I. A. (1985). *Changing Patterns of Local Authority and Evolution of the district-Head System in Gombe Emirate, C.1804-1960*. Unpublished PhD. Thesis. Department of History, Bayero University Kano.
- Bello, A. (1992). *The Dialects of Hausa*. Zaria: ABU Press Limited.
- Benton, P.A. (1968). *The Language and the People of Borno*. Vol. 1: London: Frank Cass and Co. Ltd.
- Carlos, G. and Haike, J. (2011). *Understanding Phonology*. (3<sup>rd</sup> Edition). London: Hodder Education, Part of Hachette UK.

- Chambers, J.K. and Trudgill, P. (1998). *Dialectology*. (2<sup>nd</sup> Edition). New York: Cambridge University Press.
- Chomsky, N. & Halle, M. (1968). *The Sound Patterns of English*. New York: Harper and Row.
- Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics*. USA: Blackwell Publishing.
- Dara, H. K. (2008). *Dialectal Interference in Amana a Yau and Gaskiya ta fi Kwabo Newspapers*. Unpublished M.A. Thesis ABU Zaria.
- Fannami, M. and Mua'azu, M. A. (2012). *An Introduction to Morphology and Syntax of the Kanuri Language*. Linguistics Edition 87.
- Finegan, E. (2008). *Language: Its Structure and Use*, (Sixth Edition). USA: WADSWORTH CENGAGE Learning.
- Garba, S. (2006). *Variation in a dialect: A study of Karganci as a Sub-Dialect of Zazzaganci*. Unpublished M.A. Thesis, ABU Zaria.
- Gimba, A. M. (1990). *A Study of the Bole Dialect*. Unpublished M.A Thesis, English Department, Bayero University, Kano.
- Gimba, A. M. (2000). *Bole Verb Morphology*. Unpublished PhD. Dissertation, University of California, Los Angeles.
- Gleason, H. A. (1960). *An Introduction to Descriptive Linguistics*. USA: Rinehart and Winston Inc.

- Greenberg, H. J. (1963). *The Languages of Africa*. U.S.A: Indiana University, Bloomington.
- Harrington, J. (2007). *Generative Phonology*. Cambridge: Cambridge University Press.
- Haruna, A. (2014). Research and Developments in the Study of Endangered Languages in Nigeria: Status, Strategy, Documentation and Preservation. *A Paper Presented at the First International Conference on Endangered Languages in Nigeria, in Honor and Memory of Professor. M.K.M. Galandanci, Kano*. Bayero University, Kano.
- Jane, G. & Carl, R. (2001). *Facts About the World's Languages: An Encyclopedia of the World's Major Languages, Past and Present*. New York: H. W. Wilson Company.
- Juma'a, J. H. and Mu'azu, M. A. (2017). *Introduction to Basic Course in Linguistics: with Reference to Nigerian Languages*. Universitaires EUROPEENNES
- Kraft, C.H. (ed.) (1981). *Chadic Word lists*: Verlag Von Dietrich Reimer, Berlin.
- Labov, W. (1991). *The Three Dialects of English: New Ways of Analyzing Sources Change*. E. P. Eckert (ed.) San Diego: Academic Press. Pp. 1-44.

- Lucas, J. (1967). *A Study of the Kanuri Language*. London: Dawsons of Pall Mall.
- Lyons, J. (2009). *Language and Linguistics: An Introduction*. London: Cambridge University Press.
- Meek, C.K. (1931). *Tribal Studies of Northern Nigeria*. Vol. 2: London: Keegan Paul, Trench Trubner and Co. Ltd.
- Musa, A. (1996). *Lexico-semantic Variation in Hausa Dialects: A Synchronic Analysis*. Unpublished PhD Thesis, Bayero University, Kano.
- Musa, A. (2015). Hausa Dialectal Lexical Synonyms: A Cognitive synonyms Approach. *BAJOLIN*. Bayero University, Kano.
- Mu'azu, M. A. and Balami (2010). A Descriptive Analysis of Bura Verbs and Vocabulary: *LincomStudies in African Linguistic*. 79 LINCOM EUROPA academic publication.
- Mu'azu, M.A. and Katwal, I. P. (2009). Grammar of Miship Language. *LincomStudies in African Linguistics*: 78. LINCOM EUROPA academic publication.
- Mu'azu, M. A. (2016). A Grammar of the Kilba Language. *LincomStudies in African Linguistics*: 76. LINCOM EUROPA academic publication.

- Nama'aji, J. G. (2017). *Phonological Differences Between Marajanci and the Standard Hausa*. Unpublished M.A. Dissertation, Bayero University, Kano.
- Newman, P. (1977). Chadic Classification and Reconstructions. *Afro-asiatic Linguistics*. Vol. V, 1-4.
- Roach, P. (2010). *English Phonetics and Phonology: A Practical Course*. U. K: Cambridge University Press.
- Schuh R. G. (1978). *Bole-Tangale Languages of the Bauchi Area (Northern Nigeria)*. Berlin: Verlag Von Dietrich Reimer.
- Schuh, R. G. (1983). *Bole Verbs and Genitives*. UCLA.
- Schuh, R. G. and Gimba, A. M. (2008). *Low Tone Raising in Bole*. UCLA.
- Schuh, R. G. (2001). Sources of Gemination and Gemination as a Morpheme in Bole. *Presented at the 32<sup>nd</sup> Annual Conference on African Linguistics*. ACAL, UC, Berkely.
- Schuh, R. G. (2011). Finding Cognates Between Hausa and its Chadic Cousins. *Harsunan Nijiriya XXIII*. Centre for the study of Nigerian Languages, Bayero University Kano.

- Schuh, R. G. and Gimba, A. M. (2012). Quantification of expressions of duration in Bole and other Chadic Languages. *Theory of Everything: In Honor of Ed Keenan* Vol 17. 389-393.
- Schuh, R. G. & Gimba, A. M. (2015). *Bole-English-Hausa Dictionary and English-Bole wordlist*. UCLA: University of California Publications.
- Shannon, K. W. (2012). *A Micro-Typology of Pluractionality in Bole Language*. University of California, Loss Angeles.
- Shimizu, K. (1974). Towards Angas Dialectology. *Harsunan Nijeriya: IV*. Centre for the study of Nigerian Languages: Abdullahi Bayero College Kano.
- Swadesh, M. (1950). Salish Internal Relationships. *International Journal of American Linguistics*, Vol xvi, 157-167.
- Swadesh, M. (1955). Towards Greater Accuracy in Lexicostatistic Dating. *International Journal of American Linguistics*, 21. 121-137.
- Syal, P. and Jindal, D. V. (2014). *An Introduction to Linguistics: Language, Grammar and Semantics*. Delhi. (2<sup>nd</sup> edition). PHI Learning Private Ltd.

Trask, R. L. (1996). *Dictionary of Phonetics and Phonology*. New York: Taylor and Francis Routledge.

Yules, G. (1985). *The Study of Language*. Cambridge: Cambridge University Press.

Zulyadaini, B. (2008). Comparative Lexical Analysis Between Bole and Ngamo Languages. *LIWURAM* Vol. xv. University of Maiduguri.

## **APPENDICES**

### **Appendix 1: Questionnaire**

This is the sample of the questionnaire set for the purpose of sourcing the data of the present research.

**BAYERO UNIVERSITY, KANO**

**DEPARTMENT OF LINGUISTICS AND FOREIGN LANGUAGES**

#### **RESEARCH QUESTIONNAIRE FOR BOLE WORDLIST**

Dear Respondent,

I am a post graduate (Master of Arts in Linguistics) student of Bayero University, Kano. I am conducting a research on Dialectal Variation in Bole Language. The research intends to examine the areas of similarities and differences in the four selected dialects of Bole: Pikka, Bara, Kalam and GaJam. Your honest response will be treated with maximum confidentiality.

Thanks for your cooperation.

#### **SECTION A: PERSONAL DATA**

Age: \_\_\_\_\_

Sex: \_\_\_\_\_

Occupation: \_\_\_\_\_

Town: \_\_\_\_\_

## **SECTION B: Word Lists**

What do you call these in your dialect?

1	ant		22	bilharzias	
2	all		23	blind	
3	and		24	bitter	
4	animal		25	blanket	
5	ashes		26	bow	
6	arrow		27	beer	
7	anger		28	broken pot	
8	anus		29	bravery	
9	burn		30	child	
10	back		31	cloud	
11	bad		32	cut	
12	bark		33	chest	
13	because		34	cow	

14	belly		35	cotton	
15	big		36	corn	
16	bird		37	cassava	
17	bite		38	cook	
18	black		39	cap	
19	blood		40	calabash	
20	basket		41	come	
21	bone		42	cough	
43	cave		64	eat	
44	count		65	egg	
45	donkey		66	eyes	
46	deaf		67	finger nail	
47	day		68	fail	
48	die		69	far	
49	dream		70	fat	
50	dirty		71	father	
51	dog		72	fear	
52	drink		73	feather	
53	dry		74	few	
54	dull		75	fight	
55	dust		76	fire	

56	dove		77	fish	
57	daughter		78	five	
58	deer		79	fly	
59	ear		80	foot	
60	elephant		81	four	
61	embers		82	fruit	
62	exclude		83	frog	
63	earth		84	gift	
85	give		106	hair	
86	good		107	hand	
87	grass		108	he	
88	guts		109	head	
89	guinea fowl		110	hear	
90	goiter		111	heart	
91	hut		112	ice	
92	hoof		113	if	
93	hunter		114	in	
94	horn		115	I	
95	hoe		116	jump	
96	heavy		117	know	
97	here		118	kill	

98	hit		119	king	
99	heel		120	knife	
100	hold		121	long	
101	how		122	last year	
102	hunt		123	leopard	
103	husband		124	lake	
104	hen		125	laugh	
105	horse		126	leaf	
127	left side		148	madness	
128	leg		149	meningitis	
129	lie		150	measles	
130	lion		151	near	
131	lizard		152	narrow	
132	love		153	name	
133	laterite		154	neck	
134	man		155	night	
135	meat		156	now	
136	many		157	nose	
137	mother		158	not	
138	mountain		159	old	
139	mouth		160	one	

140	magpie		161	other	
141	mouse		162	owl	
142	monkey		163	play	
143	mosquito		164	pull	
144	millet		165	push	
145	morning		166	pigeon	
146	moon		167	pepper	
147	milk		168	potatoes	
169	pawpaw		189	small	
170	person		190	smoke	
171	pot		191	snake	
172	princess		192	salt	
173	rain		193	stone	
174	red		194	stick	
175	right		195	spider	
176	right side		196	sun	
177	river		197	sleep	
178	sea		198	show	
179	seed		199	take	
180	short		200	throw	
181	say		201	tall	

182	scratch		202	tiny	
183	surprise		203	touch	
184	sweet		204	trouser	
185	short		205	to grind	
186	sing		206	to fry	
187	skin		207	lage	
188	sky		208	yam	

## Appendix 2: The Raw Data of the Research

The following lists are the raw data of four Bolewa dialects and their glosses, gathered for the purpose of this research:

### i- Nouns

S/N	PIKKA	BARA	KALAM	GA[AM	GLOSS
1	áyándí	Yàndì	sàmìntè	kù]ùwò	ant
2	dábbà	Óshì	dábbà	dábbà	animal
3	bùtó	Bùtó	bùtó	bùtó	ashes
4	póccó	Póccó	póccó	póccé	arrow
5	dī] í	bòdí] í	dī] í	bòdí] í	anus
6	bói	Bói	bói	bói	back
7	àwó	Àwí	tùmbà	àwó	belly
8	yāró	yāró	yāró	yāró	bird
9	dòm	dòmì	dòmì	dòmì	blood
10	dā~ur	lásí	lásí	lásí	basket
11	òsókí	òsókí	òsókí	òsóké	bone

12	‘yópōbùmdòm	déppá dòmì	yóppá dòmì	‘yóppá dòmì	bilharzias
13	mbùkùm	mbùmí	bòmò	mbùmí	blind
14	gòdò	átì tí~í	gòdò	gòdò	blanket
15	riyà	riyà	riyà	riyà	bow
16	mòsìn	mòsì	mòsí	mòsí	beer
17	dísíní	dísíní	jìngìlètí	ké]èdì	broken pot
18	lààwò	lààwò	lààwò	lààwò	child
19	kè~é	kòryà	kwàryà	kòríyà	cloud
20	bòogàwá	bòogàwá	bòogàwá	bòogàwá	chest
21	kòm	kwàmì	kwàmì	kwàmì	cow
22	lōlō	lōlō	lōlō	lōlō	cotton
23	kùtè	kyālà	lèkkítè	‘yààlà	corn
24	dóóyà	dóóyà	dóóyà	dóóyà	cassava
25	tàajìyà	tàagiyà	tàagiyà	tàagiyà	cap
26	kúlà	kúlà	kúlà	kúlà	calabash
27	kóorò	kóorò	kóorò	kóorò	donkey
28	bùshí	pòtì	pòtì	pòtì	day
29	àdà	àdà	Àdà	àdà	dog
30	ùzùr	ùzírī	ùzírī	ùzírī	dust
31	mbòlè	mbòlè	mbòlè	mbòlè	dove

32	báti	bónnà	lávúndò	bónnò	daughter
33	~ò~òkì	bó~ò	bò~ó	~ò~ó	deer
34	kùmó	kùmí	kùmó	kùmó	ear
35	yàunó	yàunó	yàunó	yàunó	elephant
36	‘yerwè	‘yerwè	èrèpí	lísì	embers
37	wòli	òli	bò’li	òli	earth
38	jínsá	wólú	wólú	wólú	egg
39	ídó	ìdì	ídò	ídò	eyes
40	kùrùm	kùrù	kùrù	kùrù	finger nail
41	bòowú	bòowú	bòowú	bòowú	father
42	sàuwò	sàuwò	sàuwò	sàuwò	feather
43	òsí	wòsí	wòsí	wòsí	fire
44	kérwò	kérwò	kèrwò	kèrwò	fish
45	bà]í	bà]í	bà]í	bà]í	five
46	gà shèkè	shákè	shèkkè	shèkkè	foot
47	pò]]ó	pò]]ó	pò]]ó	pò]]ó	four
48	lèyí réwé	dàndé shòwí	dàndé shòwí	bà’ì shòwí	fruit
49	dìndì	dìndì	dìndì	dìndì	frog
50	ònòm	ònò	ònò	ònní	gift
51	sārò	zārò	sārò	sārò	grass

52	ázin	ajìn	ázzì'è	ázzì'è	guts
53	dùumò	dùumò	dùumò	dùumò	guinea fowl
54	túkúlí	tòkkòl}óshí	té~	mbòrók	goiter
55	kùkkà	kùkkà	kùkkà	kwànshà	hoof
56	mbùzàm	ámbíà	ámbarà	mbùzà	hunter
57	~álùm	~álù	~álù	m~álù	horn
58	jà]à	pèètà	sèètà	pèètà	hoe
59	biìli	biìli	dùṅgùnyà	biìli	heel
60	mòjì	mòzì	mòzì	mòzì	husband
61	yāwì	yāwì	yāwì	yāwì	hen
62	dōshò	dōshò	dōshò	dōshò	horse
63	sòuwò	sòuwò	sòuwò	sòuwò	hair
64	sàrà	sàrà	sàrà	sàrà	hand
65	kòoyí	kòò'í	kò'é	kòò'í	head
66	tilò	tilò	tilò	tilò	heart
67	tántàalíyò	táttàalíyò	táttàalíyò	táttàalíyò	ice
68	môì	môì	môì	môì	king
69	~ādí	~ādí	~ādí	m~ādí	knife
70	jājirmà	gúnḡgù	gúnḡgù	gúnḡgù	leopard
71	pāli	pāli	pāli	pāli	lake

72	kùmì	òwwò	òwwò	òwwò	leaf
73	shèkè	shèkkè	shèkkè	Shèkkè	leg
74	tùrùm	tùrù	tùrù	tùrù	lion
75	gāré	gáré	gāré	gāré	lizard
76	sàrgà	kèccè	jàngà	jàngà	latrine
77	gòrzò	gòrzò	gòrzò	gòrzò	man
78	ló	ló	ló	ló	meat
79	nòonù	nòonù	nòonù	nòonù	mother
80	gúushò	gúshò	gúshò	gúshò	mountain
81	bòo	bòo	bò	mbò	mouth
82	kààkí	ṅgààkí	ṅgààkí	ṅgààkí	magpie
83	kòsúm	kwású	kòsú	kòsú	mouse
84	bìdò	bìdò	bìdò	bìdò	monkey
85	bò]òtì	bò]òtì	bò]òtì	bò]òtì	mosquito
86	mòr]ò	mòr]ò	mòr]ò	mòr]ò	millet
87	sáatò	sáátò	sátò	sáátò	morning
88	tèrè	tèrè	tèrè	tèrè	moon
89	wò]ì	wò]ì	wò]ì	wò]ì	milk
90	àmpèmpèlì	bángíló	àmpèmpèlì	bángíló	madness
91	sìrìmbà	dùmpámà	râu	sìrìmbà	meningitis

92	purshì	shèrè]ì	shartùwà	purshì	measles
93	sún	sín	sín	sín	name
94	dì]ò	dì]ò	dì]ò	dì]ò	neck
95	bò]ì	bò]ì	bò]ì	bò]ì	night
96	ùntí	wùntí	wùntí	wùntí	nose
97	móo]ì	móo]ì	móo]ì	móo]ì	one
98	dùujì	dùuzì	dùuzì	dùuzì	owl
99	bàrú	bàrú	bàrú	bàrú	pigeon
100	shìttà	shìttà	shìttà	shìttà	pepper
101	dànkâl	lò~è	dànkálí	dànkálí	potatoes
102	kàbúushì	kàbúushì	rèddè	kàbúushì	pawpaw
103	mèèmù	mèèmù	mèèmù	mèèmù	person
104	kù]á	dò~~ò	dò~~ò	dò~~ò	pot
105	màryàm	màiràmà	màryàmà	màryàmà	princess
106	pítò	pítò	pítò	pítò	rain
107	àushì	àurì	àushì	àushì	river
108	tèèkù	tèèkù	tèèkù	tèèkù	sea
109	àrè	àrè	àrè	àrè	seed
110	ájàp	lájábí	wájábí	lájábí	surprise
111	dàlintà	dàntà	dàntà	dàntà	sweet

112	lìshì	lìshì	lìshì	lìshì	skin
113	kò'y'yè	kò'è	kóyyè	kóyyè	sky
114	lòlè	lòlè	lòlè	n]ólè	small
115	óllókí	óllò	óllò	óllò	smoke
116	kùrèè]ì	kùrèè]ì	kùrè]ì	kùrèè]ì	snake
117	màndá	màndá	màndá	màndá	salt
118	gūshè	gūshò	gūshò	gūshò	stone
119	zāwá	záwá	zāwá	zāwá	stick
120	lālà	lālàkì	lālàkì	lālàkì	spider
121	zùmò	zùmòkì	zùmòkì	zùmòkì	yam

## ii- Verbs

1	wùltù	wùltù	ùltù	ùltù	take
2	dòrù	shòttú	sòttú	yàatú	throw
3	njèèlè	njèèlè	njèèlè	njèèlè	sleep
4	ārù	ārù	àrú	àrú	sing
5	pòrú	pōrí	pōrí	pōrá	say
6	rùbbù	rùwā]ì	ròsì	rùbbò	scratch
7	gòmpò	tère	tère	Tère	play

8	‘yòllò	‘yòlli	‘yòlli	‘yòlli	pull
9	tùbbù	tùbbè	tùbbè	tùbbè	push
10	ndòlinkà	ndòlinkà	dòlshè	ndòlinkà	love
11	sòòtà	sòòtà	sòòtà	sòòtà	lie
12	zùrò	zùròò	zùrò	zùrò	laugh
13	dùwú	dùccè	dùccè	jùwó	kill
14	dúrshé	dúrshé	dúrshé	dúrshé	jump
15	kùmā	kùmè	kùmè	kùmè	hear
16	‘yúwù	íwí	ngó~~í	ngó~~à	hold
17	bàrà	bàrà	bàrà	bàrà	hunting
18	gòushè	gòccè	gbòwì	jìwò	hit
19	ónú	òni	óná	óná	give
20	gàṅgè	dídì	dídì	índò	fly
21	wāshì	wāshì	wāshì	wāshì	fight
22	nzùwà	nzùwà	nzùwà	nzùwà	fear
23	kàasù	yùlà	sōrò	sōrò	fail

24	ngá]ò	tìishí	tìishí	tìishí	eat
25	sèèshí	sèèshí	sèèsí	sèèshé	drink
26	pò'ò	pò'é	pò'é	pò'é	dry
27	mòtó	mòtó	mòtó	mòtó	die
28	súnnà	súnnà	súnnà	súnnà	dream
29	mbòsíní	mbòzíní	mbòzíní	mbòzíní	counting
30	shìm	sìmì	sìmì	sìmì	cough
31	gùryà	gùryà	gùryà	bùryà	cave
32	ndèttí	ndètí	ndètí	ndètí	come
33	jìнку	jìnkó	jìnkó	jìnkó	cook
34	~ótú	kèrè	kèrè	kèrè	cut
35	wódi	ódi	ódi	ódi	bite
36	wòdi	òdi	òdi	òdi	bark
37	bòkkú	bòkkú	bòkkú	bòkkó	burn
38	māfiyò	māfiyò	māfiyò	já~~ànà tílò	anger
39	mònù	nímánkó'í	mòònà	mòònà	know

### iii- Adverbs

1	màmmèè	dúlóngò'ĩ	díccí	]òuwò	right
2	tiisho	shùùtò	tiisho	tiisho	right side
3	bám	ímóó]í	émóó]í	ímóó]í	other
4	shónconê	hónconê	cónconê	shónshònê	now
5	nêm	nêm	nemi	nêm	near
6	gè]é	gè]é	gè]é	gè]é	left side
7	mbàànò	mbàànò	mbàànò	mbàànò	last year
8	tènē	tònē	tònē	tònē	here
9	bán gà	án gánkí	pò]ĩ	pò]ĩ	exclude
10	inkó	inkó	inkwán	inkó	because

#### iv- Adjective

1	dài	dài	dàyí	dài	red
2	du~~à	du~~à	du~~à	du~~à	short
3	mànshù	mànshì	mànshù	mànshù	old
4	kúmbè	i]òlè	kúrùbà	súkáánà	narrow
5	gàráŋ	gàrá	gàrá	gàráŋ	long
6	ndà]àŋ	ndà]à	ndà]à	ndà]à	heavy
7	bìn	dòm~òli	bìn	bádá	hut
8	álgàjí	shúú]í	kóórê	shúú]í	green
9	gòn	gwàn	gwàn	gwàn	good

10	shîm	shîm	shîm	shîm	few
11	gàráŋ	gàráŋ	gàrá	gàráŋ	far
12	jìwò	zìwò	dìmfà	zìwò	fat
13	bílkin	bílkin	sètè	bílkin	dull
14	bùnjì	bùkù]í	bùnzí	bùkù]í	dirty
15	bèebè	ùsàu	~úm~á	sòomà	deaf
16	gòrzinàtè	gé]éntílò	gòrzinàtè	gòrzinètò	bravery
17	dà]]àkì	dà]]à	dà]]à	dà]]à	bitter
18	gónsà	ròmón	gwànsá	gwànsá	bad
19	síiri	síiri	síiri	síiri	big
20	bù'ùm	bù'ùŋ	bù'ú	bù'ú	black

#### **v- Pronouns**

1	ìsì	ìsì	ìsì	ìsì	he
2	ínà	ínà	ínà	ínà	I
3	shápí	shákkí	cákí	shákí	all
4	gòdóm	gòdò	gòdò	gòdó	many

#### **vi- Prepositions**

1	gá	gá	gá	gá	and
2	sàyà	âu'insà	bàŋgà	mámmísà	not
3	tàn	tàn	tàn	tàni	how
4	bà	bà	bà	bà	if

5      gà                      gàwà                      gàwà                      gàwà                      in