PHONOLOGICAL ADAPTATION OF ENGLISH LOANWORDS IN LUKABRAS

BY

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DECLARATION

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DEDICATION

To my parents Rev Isaac Mukulo Mukhonje and Joyce Nafula Munji,

My brother James and sisters: Jackline, Damary,

Mary, Ebinet and Sarah.

ABSTRACT

Phonological adaption of English loanwords in Lukabras is a study which describes the phonological aspects of English loanwords in Lukabras. Its objectives were: to compare the Lukabras and English phonetic inventories; to describe the phonological processes employed in the adaptation of loanwords in Lukabras and to derive the phonotactic rules governing the adaptation of loanwords in Lukabras. Data was analyzed using the CV (Consonant, Vowel)

phonology framework. CV phonology is a universal syllable theory which is vital in the analysis of the re-syllabification processes. Methodology employed descriptive and explanatory approaches. The study was carried out in Kakamega North constituency, South Kabras Location, Shanda Sub location. Purposive sampling was used whereby the key informants were the Lukabras native speakers. Data was collected through questionnaire, informal interviews and discussions with Lukabras native speakers. These discussions and interviews were tape recorded and then transcribed. Data was analyzed qualitatively with descriptions of how English loanwords adapt in Lukabras. Explanations of why the English loanwords had to change their original shape were also given. The study found out that English loanwords adapt in Lukabras by being nativized through phonological processes such as vowel lowering, devoicing of consonants, continuant strengthening, stop weakening, monophthongization of diphthongs, reduction of long vowels and vowel epenthesis. The study recommends further research on: 'Phonological adaptation of English verbs, adverbs and adjectives in Lukabras', phonological adaptation of Kiswahili loanwords in Lukabras', and 'phonological adaptation of loanwords from other Luhya dialects in Lukabras'

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DEFINITIONS OF TERMS

Kabras: It refers to people who speak Lukabras language i.e. the speakers.

Lukabras: It refers to the language of the Kabras people.

Loanword: It is an item which has been borrowed from another language, a word, which originally was not part of the lexis of the recipient language but was taken from other language and became part of the borrowing language's vocabulary (Campbell, 1988)

Loanword adaptation: This is whereby loanwords, which have been borrowed from a source language, are altered to conform to the recipient language's phonology.

Donor language

ABBREVIATIONS

CV - **C**onsonant **V**owel

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The central focus of this study is to explain how English loanwords are adapted to fit into the Lukabras phonological system. This study shows how the pronunciations of English loanwords are constrained by the Lukabras phonological structure.

This chapter gives background to the study, background of Kabras people and their language, background of English language in Kenya, statement of the problem, aim and objectives, research questions, significance of the study and scope and limitations of the study.

1.2 Background to the study

The global world today has greatly influenced and changed people's lifestyle in many ways. For instance, people nowadays take a few seconds to access any information across the world through the use of Internet, Emails, Facebook, and Twitter etc. Most of the online information is always written or rather presented in official languages which are not native languages for most people. Therefore, people acquire one or more official languages to ease their global communication. When one learns these official languages, they are likely to meet a number of words which do not exist in their language. Since language is dynamic, people enrich their languages by adapting some linguistic aspects from the official languages. As a result, new

words are being invented and incorporated to fit into the social communicative aspect of the respective recipient languages.

Human beings are social in nature, they move from one place to another and interact with other people who have different languages from theirs. As a result, people re-invent their native languages by borrowing words which do not exist in their native languages from other languages that they interact with. Languages are also importers of words from other languages. These borrowed words normally do not have equivalent words in the adopting language. To ease communication among the interlocutors, the new words are borrowed from the donor language (Oduma, 2006). These adopted words from other languages are then customized to fit into the phonological structure of the recipient language.

Borrowing of new words from other languages has influenced many languages across the globe. Based on the fact that languages borrow words from each other, various scholars have studied loanwords in their native languages. English being an official language of most of African countries, African languages have acquired many new words through borrowing from it. Jokweni (1992), Batibo (1996), Oduma (2006) and Sang (2009) are a few examples of the African scholars who have studied loanwords in their native African languages.

English being one of Kenya's official languages and language of instruction in schools has greatly influenced Kenyan native languages. Lukabras being one of the Kenyan native languages has adopted a large number words from English.

1.3 Background of Kabras People and their Language.

Lukabras is a Luhya dialect of the Kenyan Bantu family. The Luhya family has seventeen dialects which are: Lubukusu, Luisukha, Olukhayo, Olushisa, Lulogooli, Olumarama, Lunyala (east), Lunyala (west), Olunyore, Lutirichi, Lusamia, Lutachoni, Olutsotso, Oluwanga, Luidakho, Olugisu and Lukabras.

According to my personal consultant, Festus Mutanyi Simwa, a Kabras elder who has enough knowledge in Lukabras history, Kabras people are divided into three major sub groups. These are Abanambo, Abakamulamba and Ababalasi. The Abanambo and Abamukalamba sub groups are believed to have originated from Western Congo and migrated into western Kenya through Uganda. The Ababalasi sub group is believed to have originated from the North Eastern Nigeria, moved all the way past Uganda and finally settled in western Kenya. At present, the three sub groups of Kabras people occupy Kakamega North Constituency in the western part of Kenya.

Naming of the Lukabras sub groups was not arbitrary. The Kabras elders derived their names. The Abanambo sub group was derived from the Lukabras phrase *'abandu ba mumbo'* which means *'people from the west'*. They were referred to as people from the west by the other Kabras because they originated from the western part of Congo. Since the phrase *'abandu ba mumbo'* was too long, it was blended to the proper noun, *'Abanambo'*. This sub group is divided into thirteen clans which were named after their respective leaders. These clans are: the Abachuna, Abashu, Abashibika, Abasamo, Abang'aale, Abasimula, Abachisira, Abakhusia, Abarefi, Abatsikha, Abasira, Abashibuli and Abashisalachi.

The Ababalasi sub group derived their name from the Lukabras verb *'lasa'* which means *'shoot'*. The people of this sub group were 'Warriors' and 'Mighty Hunters'. They were worriers because they used to fight the neighboring Nandi community with bows and arrows. They were known to be fearless. They also used bows and arrows to hunt for food. From their act of shooting, they were referred to as *'abandu abalasi'* which means *'people who shoot or shooters'*. The phrase *'abandu abalasi'* was blended proper noun *'Ababalasi'*. This group is divided into eight clans named after the leaders of the respective clans. These clans are: the Abasoko, Abatobo, Abamachina, Abaluu, Abachimalia, Abachimbe, Abamusaka and Abamutama.

Lastly, the Abakamulamba sub group was named following their fearless fight with the Nandi community over land. This group grabbed land from the Nandi community which they settled on. The other Kabras people used to refer to them as land grabbers. Therefore, the name Abakamulamba was derived from the Lukabras phrase *'abandu ba kamula nende khuamba omukunda kwa bene'*. This phrase means *'people who grabbed and owned other people's land.'* From the long phrase, the words *'abandu'* which means *'people'*, *'kamula'* which means *'grab'* and *'khuamba'* which means *'to take good care or protect what you own'* were blended to form proper noun *'Abakamulamba.'* This sub group is also sub divided into ten clans which were named after their leaders. These clans are: Abasonje, Abamuluuli, Abamakangala, Abanzasi, Abahenyu, Abatali, Abamuchi, Abamutsembi, Abashikusi and Abamukhuyu.

Lukabaras is a dialect of Luhya language spoken by Kabras people. The name "Kabras" was derived from the Ababalasi sub group by the British. Initially, the word *'Omubalasi'* was used to refer to one Kabras person and *'Ababalasi'* to Kabras people. However, people who constituted

the East African Protectorate British council could not pronounce the word '*Ababalasi'* correctly, so they corrupted the name and registered all the three subgroups as 'Kabras' instead of '*Ababalasi'*. So '*Ababalasi'* changed to '*Abakabras'* which means *'the Kabras people'*. Therefore, Kabras are the people who speak Lukabras dialect.

According to my personal consultant (ibid), the first British Quaker missionary by the name Arthur Chilson arrived in Kabras land in the year 1883. He settled in the present Nandi Hills. He built his house in a ridge which separated two hills. The Kabras call this ridge '*eshibanga'*. Since the Kabras could not articulate his name properly, they nicknamed him '*Chasoni Shibanga',* meaning, *'Chilson from the ridge'*. During this pre-colonial period, Kabras were under the leadership of Nabongo Mumia of the Wanga community and were represented by an elder in his Council of Elders. Upon Chilson's arrival, he asked for the leader of Kabras community because he wanted to be directed to Lake Victoria and Mount Elgon. He was directed to the Shibanga's Council of Elder, Mr. Lumbasi, who directed him to the supreme leader, Nabongo Mumia. Chilson managed to convince Nabongo Mumia to provide him with escorts to Lake Victoria and Mount Elgon.

In 1914, the Quaker missionaries joined Arthur Chilson and they started spreading Christian religion under Friends Church. Besides spreading the gospel, they established elementary schools where they taught Kabras how to read and write English. As time went by, more missionaries came from abroad and interacted with Kabras. Among these missionaries were catholics who established catholic churches and built two primary schools. These schools were Lwanda Primary School, now called Shihome Primary School and Kakoi Primary School which has to date retained its name.

During the colonial period, the Kabras leaders collaborated with the Imperial British East African Company and most of the Kabras men were recruited to the colonial-era police forces. A good number of Kabras men were recruited to the British army and were ferried abroad to fight in the First and Second World Wars.

The establishment of the early Christian churches, elementary schools and the collaboration with the Imperial British East African Company during the pre-colonial and colonial period are major factors which contributed to borrowing of English words in Lukabras. To date, there is still increased contact between the Kabras and English through education, news media, government officials and so on, resulting in a number of English words being incorporated in Lukabras as loanwords.

1.4 Background of the English Language in Kenya

English is a West Germanic branch of the Indo-European group of languages (Grimes, 1996). It was introduced in Kenya towards the end of the 18th century through Christian missionaries and British colonialists.

The British colonial administration in the years (1920-1963) employed the indirect rule, which exploited the existing indigenous political structure to control the colonized people (Furaha, 2007). Therefore, the British education system used new skills to suit the local cultural and social conditions. In this education system, Kenyans were trained in English and later used to train their fellow countrymen. Due to the increased demand of education during the colonial period, more schools were established and Kenyans were recruited as teachers. Other educated Kenyans were also recruited for clerical jobs. This made many Kenyans enroll for British education with the aim of being employed after they have learnt and mastered English.

The spread of English in Kenya was also greatly influenced by the Second World War. The British army recruited some Kenyans as soldiers, clerks and translators. The recruited Kenyans could speak English after their demobilization from the army after the war (Owino, 2003).

At present, English is one of Kenya's official languages. It is also one of Kenya's language of instruction in the education system.

1.5 Statement of the problem

Phonological adaptation of English loanwords has been studied in various languages. Some of the languages studied include: Norwegian (Kuitert, 2013), Dutch (Nagy, 2010), Hebrew (Cohen, 2009), Isindebele (Mahlungu, 2007), Naandi (Sang, 2009) and Ateso (Oduma, 2006).

The languages studied, so far, have different phonological processes in their loanword adaptation. In Naandi, for example, loanwords adopted from English mainly adapt by suffixation of [sit], devoicing of consonants and vowel epenthesis processes, (Sang, 2009).

In Ateso, loanwords from English are mainly adapted by prefixation of the morpheme [e], devoicing of consonants and vowel epenthesis processes (Oduma, 2006).

In Lukabras, nouns adopted from English adapt differently depending on the Lukabras noun class to which the adopted word belongs. The first process that nouns adopted from English undergo is morphological conditioning of the loanword with a pronominal affix. These pronominal affixes are grouped into three categories: pre-prefixation of the morpheme [e], pre-prefixation of morpheme [o] and prefixation of the morpheme [e]. These pronominal affixes are

used to mark singularity in nouns. The Lukabras phonotactics does not allow consonants at the word final position, so all the loanwords adopted from English are also adapted by suffixation of a final vowel. Moreover, English loanwords adapt using different prefixation morphemes depending on the Lukabras noun class that the adopted word is grouped into as can be seen in Table 1.

Table 1: Preliminary data of Lukabras English Loanwords.

English	Lukabras	Gloss
[□□:t]	[eli□ati]	'shirt'
[s□:kət]	[esoketi]	'Socket'
[swetə]	[omusweta]	'Sweater'

From the above illustration, the English noun 'shirt' adapts to Lukabras by first undergoing morphological conditioning with pre-prefixation of the pronominal affix [e], prefixation of morpheme [li] which marks number in the Lukabras fifth noun class. Then vowel lowering process takes place whereby the central mid vowel [□:]is replaced by the central low vowel [a]. Finally, the word undergoes suffixation of final vowel [i] because Lukabras phonotactics does not allow a consonant in the word final position. 'Socket' adapts by morphological conditioning with prefixation of the pronominal affix [e], followed by vowel raising process whereby the mid central vowel [ə] is realized as high front vowel [e] and suffixation of final vowel [i]. Finally, the English noun 'sweater' adapts by morphological conditioning with pre-prefixation of the pronominal affix [o] and prefixation of the morpheme [mu] which marks number in the Lukabras

third noun class. The word also undergoes vowel lowering process whereby the English mid central vowel [ə] is realized as a low central vowel [a].

 The above data is a representation of how English loanwords are adapted in Lukabras, which reveals a significantly different pattern from the previously studied languages. This study, therefore, provides a detailed description of the phonological processes which English loanwords undergo when adapting in Lukabras, which is an understudied language.

1.6 AIM AND OBJECTIVES

1.6.1 Aim

The main aim of this study was to describe how English loanwords adapt in Lukabras.

1.6.2 Objectives

The objectives of this study were:

  i.   To compare the Lukabras and English phonetic inventories.

 ii.   To describe the phonological processes employed in the adaptation of loanwords in Lukabras.

iii.   To derive the phonotactic rules governing the adaptation of loanwords in Lukabras.

1.7 RESEARCH HYPOTHESIS

The pronunciation of loanwords is constrained by the phonological structure of Lukabras.

1.8 SIGNIFICANCE OF THE STUDY

This study is of great importance to linguists who would want to study English loanwords in other languages. The study also builds on other phonological studies done in other languages.

1.9 SCOPE AND LIMITATION OF THE STUDY

English words are generally categorized into open and closed classes. Several studies show that words which belong to the open class are borrowed more readily than those words which belong to the closed class (Bynon 1977; Apel & Muysken, 1987; Walusimbi, 2002; Oduma, 2006). Words which belong to the open class are nouns, verbs, adverbs and adjectives while words which belong to the closed class are prepositions, conjunctions and pronouns. Studying English loanwords in all these classes may be broad for a single study. This study was therefore limited to loanword adaptation of English nouns in Lukabras. This was motivated by the fact that Lukabras has borrowed a lot of English nouns.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW.

2.1 INTRODUCTION

This chapter gives the outline of the theoretical framework used in data analysis. It also reviews the literature on phonological adaptation of loanwords.

2.2 THEORETICAL FRAMEWORK

CV Phonology was first postulated by Kahn (1976) in his thesis, '*Syllable- based Generalizations in English Phonology',* where he posits that a syllable is a hierarchical unit but he does not distinguish syllable peaks from marginal elements. Since there was a need to make a distinction between syllable peak and marginal elements, Clements and Keyser (1983) expounded on this theory and came up with CV phonology, a generative theory of the syllable. The generative CV phonology model is a universal theory of syllable which can be used to analyze syllables of any language since it states the universal principles of a syllable.

According to Clements and Keyser (Ibid), a universal syllable theory must have well-formed expressions, must specify parameters along which individual languages vary their choice of syllable types , must characterize the class of language-particular rules which modify or extend the underlying syllable representation and state how syllabification rules are integrated into the general organization of the phonological component.

CV phonology theory has well-formed expressions. It states that a syllable is a hierarchical unit made up of a three-tiered structure. The first tier consists of a syllable node, the second tier known as the C V tier is made up of C and V elements, and the third tier referred to as the segmental tier consists of consonants and vowels. The CV tier is also known as the 'skeletal' tier or timing 'tier' because it determines the timing of the segmental organization and also takes

over the role of the syllabic feature in which the syllabic organization is shown by a tree structure which is dominated by the CV tier. This means that elements of the CV-tier are interpreted as corresponding to the timing units of speech production at the sub-syllabic level, (Clements & Keyser 1983). Thus, a single unit C represents a single timing unit while a sequence CC represents a double timing unit etc. The relationship between the elements in the three different tiers are specified through the association lines.

For instance, in the three- tier presentation, the Lukabras word *'omundu'* (person) can be presented as follows:

Syllable -tier			σ			σ			σ	
☐CV-tier			C	V	C		C	V	C	V
Segmental tier			ø	o	ø		m	u	nd	u

The Lukabras word '*omundu*' can be represented as a three syllable word as illustrated above. In the above presentation, a single syllable node 'σ' dominates the C and V units which constitutes a syllable. The well-formed strings on each tier consist of concatenations of members of the alphabet defined on that tier. From the above example, the consonants and vowels are mapped to the C and V slots respectively on the segmental tier.

Clark and Yallop (1995) posit that a syllable always consists of a vocalic peak which may be accompanied by a consonantal onset or coda. In Lukabras, every syllabic peak is made up of a

vowel. However, English syllable peak can either constitute a vowel or a syllabic consonant in words which end in an unstressed syllable containing a nasal or a lateral consonant (Clark and Yallop, 1995). In CV Phonology, the CV-tier defines the functional positions of peak and non-peak within the syllable. Elements in the CV-tier are grouped into the core syllables corresponding to the core syllable inventory selected by the language in question. Clements and Keyser (Ibid) tried to solve the syllable boundary ambiguity by formulating the following two principles.

The Onset First Principle states that: syllable initial and final consonants are maximized to the extent consistent with the syllable structure conditions of the language in question. This means that, in case of ambiguity in the initial consonant cluster of a syllable, the onset must always take the permissible syllable-initial consonant clusters of the language in question. For instance, in English, the word 'extravagant' has ambiguity in the onset of the second syllable. This ambiguity is solved by syllabifying this word as [ek.stra.va.gant] because the second syllable onset consonant cluster is a permissible cluster in English. They also posit that syllable cluster irregularity should be on the coda rather than on the onset because when assigning consonants to the syllable node we begin with the onset rather than the coda.

CV phonology also captures the special nature of complex segments such as a diphthong which is shown as two vowel qualities functioning as a single vowel spreading over two V positions. It also captures the special nature of a lengthened or geminate consonant which can be presented as a single segment spreading over two C positions. For example, the English word 'brake' pronounced as [breik], the diphthong can be mapped as follows on the CV-tier:

C   C   V   C

b   r   e   i   k

CV Phonology also characterizes the rules of a particular language which modify the underlying syllable representations and the secondary articulations derived from the underlying adjacent segments are captured by the reallocation of the association lines (Clark and Yallop, 1995). For example, the Lukabras word:

Omwana   **'baby'**

The above word is derived from the underlying form:

omuana

Lukabras phonotactics does not tolerate the vowel sequence [ua]. Therefore, the vowel sequence is modified by insertion of semi vowels [w] between the vowels through glide formation process. This is because Lukabras re-syllabifies some of its vowel sequences through vowel coalescence which involves collapsing two vowels into a single vowel, deleting vowels or applying glide formation. Thus:

V   C   V   V   C   V

o m   u   a   n   a   o   m   w   a   n   a

CV Phonology is therefore a universal syllable theory that can be used to analyze and present components of syllable structures of English and Lukabras. This theory will help us understand the re-syllabification processes which loanwords from English undergo in order to fit into the Lukabras syllable structure. The re-syllabification processes will then help us to describe the

phonological processes which English loanwords undergo when they are being adapted in Lukabras. Finally, the phonological processes will guide us in the formulation of the phonotactic rules governing the adaptation of loanwords in Lukabras.

2.3 LITERATURE REVIEW

In this section, literature on lexical borrowing was reviewed in general. The review focused on how different linguists perceive lexical borrowing. In addition, literature on loanword adaptation processes was also highlighted. All these studies were significant for understanding the process of adaptation of English loanwords in Lukabras, which was the basic focus of this study.

2.3.1 Lexical Borrowing

Lexical borrowing is the integration of a word from one language into another by changing the phonology and the orthography of a foreign word to fit into the target language (Grosjean, 2010). Bynon (1977) defines lexical borrowing as the transfer of lexical material across language boundaries. Hudson (2007), in addition, postulates that borrowing involves mixing systems of languages in speech because a word is borrowed from one language to become part of the other language. He goes on to explain that the borrowed word from the donor language is treated as an ordinary word , and used ordinarily in the recipient language, but at the same time, this borrowed word is modeled to resemble the words of the recipient's language , which gives it a more or less foreign 'flavor.' For example , based on Bynon's (1977) definition, the Lukabras word '**esikati**' is borrowed from the English word '**skirt**' and it has been modified to fit in the Lukabras word structure by making it sound like other Lukabras words thus having a less foreign flavor. Kembo-Sure (1993) conceptualizes borrowing as an active and creative process in the lexical oppositions of the adopting language. He argues that borrowing involves the adaptation of the

foreign word and transforming it to fit into the phonological and morphological structure of the adopting language. As a result, the adapted word acquires the phonemic and morphemic shapes of the new system to enable it fit into the phonotactics of the recipient language (Kembo-Sure, Ibid).

When cultures come into contact with one another, borrowing takes place primarily in the realm of lexical items (Anderson, 1986). These vocabulary borrowings are called loanwords, whereby loanword refers to an element showing no morphological substitutions, but they do show some degree of phonological substitution (Haugen, 1950). The users of a language are often not consciously aware that they are borrowing words from another language, or how the borrowed word has come into the language in question (Haugen , Ibid).

Field (2002) summarizes several key social and linguistic factors that lead to word borrowing from a donor language to the target language. The social factors include:

a. Cultural dominance of the target language.

If the culture of donor language has a larger number of words as compared to the recipient language, then lexical borrowing of the new cultural words takes place in the recipient language.

b. Language convenience.

This plays an important role regarding the integration of new words in the recipient language. Speakers of a given language always find it easier to borrow a foreign word they meet in a foreign language rather than create a new word in their own language. This

is supported by Langacker (1972) who posits that it is easier to borrow an existing term from another language than to create one.

   c.   Social prestige.

Many people prefer to use English loanwords in their daily speech as it can give them a higher social status among their peers.

Field (2002) also mentions linguistic factors that lead to lexical borrowing. These factors are:

   a)   Frequency.

This refers to how often a specific word occurs in the recipient language. Frequent words come to mind easily and therefore are more stable while infrequent words are less stable and subject to replacement with a borrowed word from donor language.

   b)   Equivalence.

Equivalence between the donor and target language is concerned with whether a specific word in the donor language can find a structural or formal equivalent word in the recipient language. For example, whether a noun can find an equivalent form in the target language. Haugen (1950) states that nouns are the first words that tend to be borrowed, followed by verbs and adjectives. Myers-Scotton (2002) states that nouns are more frequently borrowed than other word classes because they receive rather than assign thematic roles. This means that nouns are less disruptive in the target language argument structure. Verbs, on the other hand, are the syntactic backbone of sentences because they

act as sentence predicates. Verbs are therefore heavier in terms of inflection, thus making it hard to integrate them into a target language.

Just like in other languages, lexical borrowing in Lukabras is also motivated by various factors. The most dominant factor which has led to word borrowing from English is lack of indigenous words for new objects and abstract ideas that are being introduced into the Kabras culture. The domains of influence in Lukabras word borrowing include farming, clothing, building, commerce, education, profession, foodstuff, health, household, military, police, music, religion, politics, administration, technology, sports and games. For example, in the religion domain, Christianity was introduced to Kabras people by British missionaries in the early 19th century. Some of the Christian terminologies which lacked the equivalent words in Lukabras were borrowed and adapted as follows:

Table 2: Lukabras Christian Loanword.

English	Lukabras	Gloss
[sækrəmənt]	[esakaramenti]	'Sacrament'
[b□□əp]	[omupi□opu]	'Bishop'
[kæ□əl□k]	[ekatsoliki]	'Catholic'
[rə□zəri]	[erosari]	'Rosary'

2.3.2 Loanwords and their Adaptation Processes.

Sang (2009), using Optimality Theory, analyzed adaptation of English loanwords in Naandi. Sang (Ibid), posits that phonemes adapt to Naandi phoneme structure by simplification process. He supports his argument with evidence from Naandi loanwords borrowed from English. He

postulated that English mid central vowels [ə, □:, æ] are simplified by being replaced by the Naandi vowel [a] through vowel lowering process. Other Naandi simplification processes included monophthongization of English diphthongs, devoicing of consonants by their voiceless counterparts and vowel epenthesis.

Oduma (2006), analyzed adaptation of English loanwords in Ateso using CV Phonology. He argued that loanwords adapt to the target language through re-syllabification process. He supported his argument with Ateso loanwords borrowed from English and Kiswahili. He claimed that loanwords from English and Kiswahili adapted into the Ateso syllable structure by insertion of vowels between consonants to break foreign consonant structures in the process known as vowel epenthesis.

Mwihaki (1998), also studied the adaptation of English loanwords in Gikuyu using Autosegmental and Metrical Phonology theory. Mwihaki (Ibid), contends that the phonological adaptation of loanwords involve the replacement of the phonological properties of the donor language with equivalent elements in the recipient language. The recipient language substitutes the foreign sounds with the most similar native sound in terms of physical and perceptual correlation for any foreign segment not in the target language.

Owino (2003), while writing on English loanwords in Dholuo, points out that loanwords adapt in Dholuo by mapping foreign phonemes directly onto the corresponding native phonetic forms.

2.3.3 Syllabification.

Syllabification is the process of dividing a word into its constituent syllables (Cherry, 2009). Loanwords whose syllable structure in the donor language does not conform to that of the

recipient language are always reconfigured to fit into the recipient language syllable pattern, (Brier, 1968). All loanwords must always go through special filter grids in which sequences that do not conform to the required specification of the recipient language have to be re-syllabified, (Batibo, 1996).

Oduma (2006), while analyzing how English and Kiswahili Syllables adapt to Ateso syllable structure, attests that the new syllable structures in the loanwords adapt by unmarking the marked syllable structure of the donor language through the unmarking syllable strategies of the recipient language. He continues to argue that the new syllable structures from the loans are unmarked by re-syllabification processes. He points out that English and Kiswahili syllables adapt to Ateso by vowel epenthesis process because the Ateso syllabification rules prohibit most of the consonant clusters which exist in English and Kiswahili syllables.

Batibo (1994), cited in Owino (2003), in an article on loan diphthong in Swahili, posits that Swahili has the CVCV syllable structure hence does not allow a sequence of VV in a syllable. This foreign VV syllable structure is therefore modified by insertion of semi vowels [ ] and [w] between the vowels. Batibo (Ibid), adds that Swahili may re-syllabify by vowel coalescence whereby it collapses two vowels into a single vowel or the language may delete vowels or apply glide formation.

The reviewed literature was of great importance because this study explains how borrowed English nouns adapt to the phonetic, phonological and morphological systems of Lukabras. The study also explains the re-syllabification processes which English syllables undergo when adapting to Lukabras.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction.

This chapter describes the research design employed in the study. It also examines the methods and research instruments used in collecting data. In addition, it describes the methods employed in analyzing and discussing the collected data.

3.2 Research Design

The research employed a qualitative research design. Under this design, the researcher used descriptive and explanatory research designs. The descriptive research design enabled the researcher to describe the phonological adaptation processes of English loanwords in Lukabras.

The phonological description elucidated how the alien English vowels, consonants and syllables adapt in Lukabras. The explanatory research design helped the researcher to give reasons as to why the alien English vowels, consonants and syllables could not maintain their original English shape but take the new Lukabras shape.

3.3 Research Methodology

The methodology employed by this study involved the following activities: place of research, population sampling, data collection procedures, loanword identification, data analysis and presentation of the research findings.

3.3.1 Place of research

The study was carried out in Kakamega North constituency, South Kabras Location, Shanda Sub location. This place is predominantly populated by the Lukabras native speakers who were the focus of this study. This ensured uniformity in the rendition of loanwords for purposes of analysis. The specific places of research were Ingabira village market, Shishome Health Centre and Shamoni Primary School.

3.3.2 Population sampling

The researcher collected the tape-recorded phonological renditions of English loanwords in Lukabras from Sanda sub location. The Lukabras native speakers were sampled purposively for tape-recording. The researcher elicited data from fourteen respondents who were available and willing to participate in the research. The researcher sampled respondents between the ages of 25 years to 55 years for the study. The motivation behind this was that this category of respondents

are bilingual speakers and have knowledge in English and Lukabras. These bilingual speakers acquire English loanwords in educational institutions, and therefore introduce them to their Lukabras speech community.

3.3.3 Data Collection Procedures

The researcher used the following procedures of data collection:

i. Questionnaires

ii. Tape- recording.

3.3.3.1Questionnaires

The researcher formulated an open-ended research questionnaire which was used to elicit data from the respondents. The open ended questionnaire gave the respondents freedom to express themselves freely. The questionnaire had fifteen sub-sections which included: agriculture and livestock; clothing; building; beauty care; education and profession; foodstuff; health; household; police, politics and administration; technology; music; games and sports; religion; transport and communication domains.

The researcher elicited data from farmers, masons, beauticians, barbers, teachers, technicians, administrators, shopkeepers, hotel attendants, clinical practitioners and pastors. These respondents were included in the study due to their availability and willingness to participate in the study.

3.3.3.2 Tape Recording

The phonological renditions from the respondents during field work were tape-recorded and transcribed by the researcher. For accurate transcription and description of data, the researcher selected two native speakers to read the collected loanwords aloud.

3.3.4 Loanword identification

A phonological and semantic correspondence was set up by comparing the pronunciation and meaning of an English noun with the corresponding pronunciation and meaning of the Lukabras noun. This was done following the example below:

Table 3: English and Lukabras Comparison

Lukabras	English	English Root	Lukabras Root	Meaning
[eli□ati]	[□□:t]	[□□:t]	[□at]	men's top cloth

Whenever there was a regular correspondence of pronunciation and meaning between the English and Lukabras nouns as shown above, like those between cognate words in related languages, the noun was regarded as an English loanword in Lukabras. Borrowed words are innovations in the recipient language and they show a systematic formal relationship with items of identical or closely associated meaning in the donor language (Bynon, 1977). From the above example, the root of the Lukabras word *'elishati'* and the English word '*shirt'* show a systematic

formal relationship in meaning and both words in the two different languages refer to the same item. The fact that the English noun '*shirt*' and the Lukabras noun *'elishati'* have the same root and refer to the same item qualify the Lukabras noun '*elishati*' to be an English loanword. Therefore, any Lukabras noun which showed a systematic formal and conceptual correspondence to an English noun was as illustrated above was assumed to be a loanword.

The identification of the Lukabras loanwords from English was greatly facilitated by the fact that many of these loanwords were members of specific semantic fields such as education, religion, clothing, health etc. Two categories of loanwords were found: the established and non-established loanwords. The established loanwords such as *'esikati'* can be traced to the British colonial period as they introduced clothing to Kenyans in the nineteenth century. The non-established loanwords like *'elaputopu'* on the other hand are more recent innovations which are in usage but they may not necessarily be in cooperated in Lukabras. Also, the fact that Lukabras and English have totally different phonological structures and both languages share little or no cultural experience prior to the 19th century was also important in the identification of English loanwords in Lukabras.

3.3.5 Data analysis and presentation

The study obtained two hundred and thirty two English loanwords in Lukabras from the questionnaire. Out of the two hundred and thirty two loanwords, 23.3% came from the Education, 9.9% from Technology, 8.6% from Politics and Administration, 8.2% from Household, 7.3% from Clothing, 7.3% from Building, 6.5% from Health, 6% from Foodstuff, 4.7% from Livestock and Agriculture, 4.7% from Beauty Care, 4.3% from Music, 3% from

Religion, 3.4% from Transport and Communication and finally 2.6% from Games and Sports Domain.

The data collected was analyzed in two main categories: phonemic adaptation and syllable structure adaptation. The phonemic adaptation was further analyzed into two categories which were: adaptation of English vowels and adaptation of English consonants. Under adaptation of English vowels, the researcher grouped together loanwords with similar vowel sounds and presented them in a table and then described their phonological adaptation processes. Then, the researcher gave explanations as to why the alien English vowels could not maintain their original shape but take a new shape after their adaptation processes. The same process was repeated with consonants. Loanwords with similar consonant sounds were grouped together and presented on a table. Phonological adaptation process of each consonant table was described, giving reasons why they changed their shape during their adaptation.

The category on syllable structure adaptation was further analyzed in three categories. The first category was on segmental associations of Lukabras syllable structure. In this category, the researcher described the Lukabras syllable structure. Second category was on segmental associations of English syllable structure whereby the researcher described the English syllable structure based on Goldsmith (1995). The third category was on marked syllable context where the re-syllabification processes of the marked English syllables in loanwords were described. Loanwords with the same re-syllabification process were grouped together and presented on a table. The re-syllabification process of each table was described and reasons given as to why the English loanwords in Lukabras could not maintain their English syllable structure but take the Lukabras syllable structure's shape. Re-syllabification rule was then formulated after the description and explanation of each re-syllabification process.

Data was presented as in the table below:

Table 4: Adaptation of [□:]

English	Lukabras	Gloss
[gl□s]	[ekil**a**si]	'Glass'
[□□:□ə]	[e□**a**□a]	'Charger'

3.4 Summary

The researcher purposively sampled respondents from Lukabras native speakers. Questionnaire and Tape recording were the tools of collecting data. Loanwords were identified through a phonological and semantic test whereby words which had the same root and meaning in both English and Lukabras were considered to be English loanwords in Lukabras. The data obtained was then analyzed phonemically and phonologically.

CHAPTER FOUR

PHONEMIC ADAPTATION

4.1 Introduction

The first objective of this study was to compare the Lukabras and English phonetic inventories. The second objective was to describe the phonological processes employed in the adaptation of English loanwords in Lukabras. This chapter addresses two objectives. The current study notes that Lukabras has five vowels, twenty consonants and two semi-vowels; whereas, English has a total of twelve vowels, twenty-four consonants and two semi-vowels. The disparity between the number of vowels and consonants in English and Lukabras is an important factor in the analysis of data in this chapter. The phonological processes that the alien English vowels and consonants undergo when adapting in Lukabras are described in this chapter.

4.2 Lukabras Vowel System.

Angogo (1983) studied Luhya vowel and consonant systems. Lukabras is one of the Luhya dialects and its vowels and consonants are part of the Luhya vowel and consonant inventory. The

fact that the researcher is a Lukabras native speaker aided in the selection of Lukabras vowels and consonants from the Luhya vowel and consonant inventory.

Based on Angogo (1983), the study came up with the following Lukabras vowel system.

[Unrounded] Front	central	back [rounded]

Close   i   u   High

Close mid   Mid

Open   a   Low
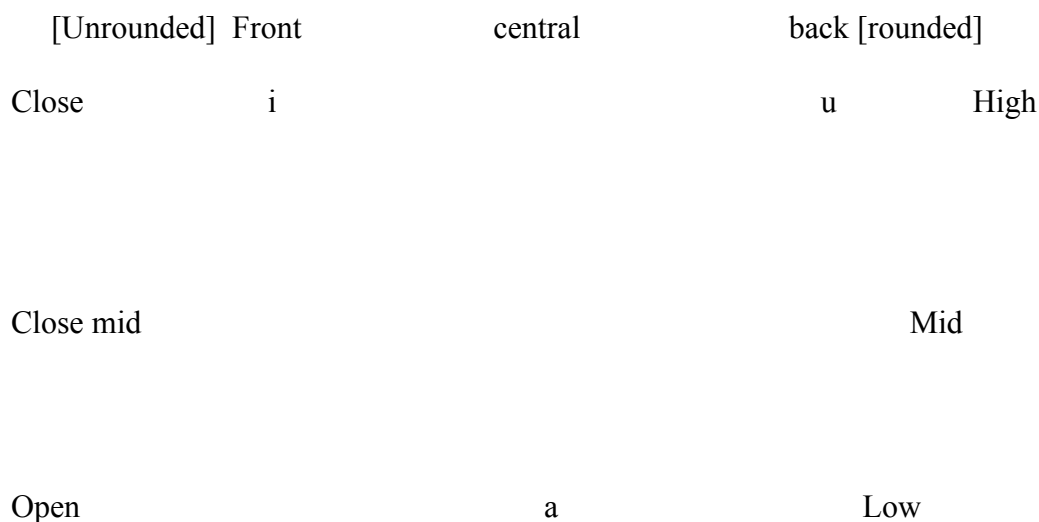
Fig 1: Lukabras vowel system.

(Source: Angogo 1983)

Orthographically, the five Lukabras vowels are presented as follows:

Table 5: Lukabras Vowel Orthographic and Phonetic Symbols

Phonetic symbol	orthographic symbol	Lukabras	Gloss
[a]	a	[**a**m**a**ni]	'strength'
[e]	e	[e⬚ifumbi]	'chair'
[i]	i	[e⬚**i**kono]	'basket'
[o]	o	[**o**mwix**o**]	'cooking stick'

| [u] | u | [e☐in**d**] | 'something' |

All Lukabras vowels occur at all word positions, that is, word-initial, word-medial and word-final.

4.3 Lukabras Consonant System.

Based on Angogo (1983), the study identified Lukabras consonants plotted on a phonemic chart showing their places and manner of articulation as shown in the table below:

Table 6: Lukabras consonant system.

Manner Of Articulation	Place of articulation	Labial	Dental	Alveolar	Palatal	Velar	Glottal
Plosives		p		t		k	
Prenasalised Plosives		mb		nd		ŋg	
Affricates				ts,	☐		
Prenasalised Affricates					n☐		
Fricatives		f , β		s	☐	x	
Prenasalised Fricatives				nz			
Nasals		m		n	☐	ŋ	
Glides		w			j		
Approximants				l r			

(Source: Agongo (1983)

The twenty Lukabras consonants and the two semi-vowels in Table 6 above can be represented phonemically and orthographically as follows:

Table 7: Lukabras Consonants Presented Phonetically and Orthographically

Phoneme	Orthography	Lukabras	Gloss
/β/	b	a**b**ana	'children'
/k/	k	eshi**k**ono	'basket'
/t/	t	shi**ti**ti	'small'
/p/	p	**p**omola	'destroy'
/mb/	mb	a**mb**a	'come'
/nd/	nd	i**nd**ika	'bicycle'
/nz/	nz	i**nz**ala	'hunger'
/ts/	ts	**ts**ifwa	'vegetables'
/f/	f	omu**f**ulu	'an initiate'
/s/	s	omu**s**atsa	'man'
/□/	sh	**sh**ina	'what'
/x/	kh	omu**kh**ana	'girl'
/m/	m	o**m**undu	'person'
Phoneme	Orthography	Lukabras	Gloss
/n/	n	omwa**n**a	'baby'
/□/	ny	i**ny**eni	'fish'
/ŋg/	ng	i**ng**o	'home'

/w/	w	**i**we	'you'
/j/	y	**y**iyo	'yours'
/l/	l	**l**ira	'cry'
/r/	r	**r**anga	'annoy'
/n□/	nj	ya**nj**e	'mine

(Source: Agongo (1983)

4.4 English Vowel Inventory.

British English vowels are categorized into monophthongs, diphthongs and triphthongs (Roach, 2000). This section presents English vowel inventory based on Roca and Johnson (1999) and Roach (2000).

Table 8: English Monophthongs.

	Front		Central		Back			
					Rounded		Unrounded	
	Tense	Lax	Tense	Lax	Tense	Lax	Tense	Lax
High	i	□			u	□		

Mid	e	☐	ə	☐			☐
Low	æ				☐	☐	

(Source: Roca and Johnson (1999)

Roach (2000) lists eight British English diphthongs. He categorizes these diphthongs into closing and centering diphthongs. In addition, he gives the five British English Triphthongs as shown in Table 9 below:

Table 9: The British English Diphthongs and Triphthongs.

Closing Diphthongs	Centering Diphthongs	Triphthongs
e☐	☐ə	e☐ə
a☐	eə	a☐ə
☐☐	☐ə	☐☐ə
ə☐		a☐ə
a☐		ə☐ə

(Source: Roca and Johnson (1999)

4.5 English consonant Inventory.

Table 10: English Consonants

Manner of articulation	Place of articulation	Labial	Labio-dental	Dental	Alveolar	Palato-Alveolar	Palatal	Velar	Glottal
Plosives		p b			t d			k g	
Affricates							☐ ☐		
Fricatives			f v	☐ ð	s z	☐ ☐			h

Nasals	m		n			ŋ	
Glides	w				j		
Approximants			l r				

(Source: Ladefoged (2001)

From Table 10 above, it is evident that English has twenty four consonants and two semi-vowels. The English consonants which do not occur in Lukabras are the dental fricatives [□] , [ð] , the labio-dental fricative [v] , the voiced palatal alveolar affricate [□] , the voiced alveolar stop [d] , the voiced velar stop [g] , the voiced alveolar fricative [z] and voiced palatal alveolar [□].The absence of these English consonants in Lukabras calls for consonant adaptation processes in Lukabras since the Lukabras phonotactics will not allow the alien English consonants.

4.6 Phonological Adaptation of English Vowels in Lukabras

English has twelve pure vowels, eight diphthongs and five triphthongs (Roach, 2000). On the other hand, Lukabras has five pure vowels only. This fact was important because the study describes how these twelve English vowels are adapted to fit into the Lukabras phonological system. The study also explains what determines the choice of one English vowel over another during the adaptation process. The phonological processes involved in the adaptation are discussed below:

4.6.1 Lowering of the English central vowels [ə] and [□], and the front vowel [æ].

[ə, □,æ]   **[a]**

The English mid central vowels [□], [ə] and the low front vowel [æ] are adapted in Lukabras through vowel lowering process. The two mid central vowels [□] and [ə] do not occur in Lukabras so they are replaced by the Lukabras low central vowel [a] which is close to their articulation. The Lukabras low central vowel [a], English mid central vowels [□] and [ə] share the feature [+central]. The only feature that differentiates them is [+ height] in which the English vowels [□] and [ə] are mid vowels while the Lukabras [a] is a low vowel. The same process of source vowel approximation takes place when the English low front vowel [æ] is adapted in Lukabras. The English low front vowel [æ] is integrated in Lukabras as low central vowel [a]. The English low front vowel [æ] and the Lukabras low central vowel [a] share the feature [+low]. The disparity between the two vowels is that during the articulation of the English front vowel [æ], the whole tongue moves forward, while during the articulation of the Lukabras low central vowel [a], the tongue neither moves forward nor retracts towards the back of the oral cavity but remains at the center. Therefore, the English vowel [æ] has the feature [+front] while the Lukabras vowel [a] has the feature [+central]. The Lukabras native speakers articulates the alien English vowels [□]and [ə] as [a] because both the English vowels and the Lukabras vowel are central vowels. In addition, the English vowel [æ] adapts as [a] because both are low vowels and are almost articulated in the same manner.

The vowel lowering processes is exemplified in Tables 11, 12 and 13 below:

Table 11: Lowering of central vowel   [ə].

 [ə]   **[a]**

English	Lukabras	Gloss
[spænə]	[esipana]	'Spanner'

[senətə]	[omuseneta]	'Senator'
[kæmərə]	[ekamera]	'Camera'
[sə☐fə]	[esofa]	'Sofa'
[s☐ələ]	[esola]	'Solar'
[☐a:☐ə]	[e☐aʤa]	'Charger'
[mi:tə]	[emita]	'Meter'
[m☐n☐stə]	[omuminisita]	'Minister'

Table 12: Lowering of the central vowel [☐].

[☐]   [a]

English	Lukabras	Gloss
[kl☐b]	[ekila**β**u]	'Club'
[☐ ☐g]	[e☐**a**ki]	'Jug'
[p☐mp]	[ep**a**mpu]	'Pump'
[b☐s]	[ep**a**si]	'Bus'
[k☐vət]	[ekalu**β**ati]	'Culvert'
[k☐mpən☐]	[ek**a**mpuni]	'Company'
[kənd☐ktə]	[omukond**a**kita]	'Bus Conductor'

Table 13: Lowering front vowel   [æ]

[æ]   [a]

English	Lukabras	Gloss
[mædəm]	[omumatamu]	'Madam'
[dæm]	[etamu]	'Dam'
[kæmərə]	[ekamera]	'Camera'
[værændə]	[eβeranda]	'Veranda'
[kæmpe□n]	[ekampeni]	'Campaign'
[kæb□□]	[ekaβi□i]	'Cabbage'
[tæksi]	[etakisi]	'Taxi'
[spænə]	[esipana]	'Spanner'
[fæktər□]	[efakitori]	'Factory'
[blædə]	[epulata]	'Bladder'

The phonological process in Tables 11, 12 and 13 can be represented as follows:

Process 1

□

ə   **[a]**

æ

The English vowels   [□], [æ]   and   [ə] are replaced by the Lukabras vowel [a].

4.7 Exceptions to the rule.

[ə]   [o]

In a few English loanwords, the English mid central vowel [ə] is realized as the Lukabras back mid vowel [o]. The English mid central vowel [ə] is integrated as the Lukabras mid back vowel [o] due to the orthography 'o' in English words. This is because there is one to one correspondence between letters and sounds in Lukabras. The Lukabras native speakers first acquire the loanwords through writing in schools before they adopt them, and therefore, they articulate them the way they are written.

Table 14 below exemplifies this phonological process:

Table 14:   Backing the low central vowel [ə]to mid back vowel [o]

English	Lukabras	Gloss
[petrəl]	[epetur**o**li]	'Petrol'
[bɪʃəp]	[omupiʃ**o**pu]	'Bishop'
[kəmɪʃən]	[ekomiʃ**o**ni]	'Commission'
[kəmpækt]	[ek**o**mpakiti]	'Music compact'

Therefore, the English phoneme [ə] is realized in Lukabras in two ways as [a] or [o]. These different realizations give us a phonemic split of the English vowel [ə]. This phonemic split can be represented as follows:

Process 2

                                                            a

            [ə]   **o**

The English vowel [ə] can either be replaced by the Lukabras vowel [a] or [o].

4.8 Vowel raising.

 [□]   **[i]**

The Lukabras vowel system lacks the English mid-high vowel [□].The English mid high vowel [□]is replaced by the Lukabras front high vowel [i] because they are almost similar in there articulation. The English mid high vowel [□]and Lukabras high front vowel [i] share the properties [+high] and [+front]. The only difference between them is that the English mid-high front vowel [□]is shorter in articulation duration than the Lukabras high front vowel [i]. The Lukabras native speakers easily substitute the English vowel [□]with Lukabras vowel [i] because they are both high front vowels.

The examples in Table 15 below exemplify vowel raising phonological process.

Table 15: Raising of the English high front vowel [□]

English	Lukabras	Gloss
[mɪnɪstə]	[omuminisita]	'Minister'
[prɪntsɪpəl]	[omupurinsipo]	'Principal'
[frɪ□]	[efurichi]	'Fridge'
[tenɪs]	[etenisi]	'Tennis'
[□ɪmni]	[e□imuni]	'Chimney'

| [kəm ɪ] | [ekom**iti**] | 'Committee' |
| [kæ əl k] | [ekatsol**iki**] | 'Catholic' |

From Table 15 above, the English mid-high front vowel [ ] is realized as the Lukabras high front vowel [i] in the following process:

Process 3

                                                   i

The English vowel [ ] is replaced by the Lukabras vowel [i].

4.9 Reduction of English long vowels [:],[:] and [u:]

4.9.1 Reduction of the English long vowel [:]

 [:]   **[a]**

The English long vowel [:] is realized as [a] in Lukabras. The English long vowel [:] and the Lukabras vowel [a] are almost articulated in the same manner because they share the feature [+central]. The difference between the two vowels is that the English vowel [:] is higher, longer in the articulation duration and less open than the Lukabras low central vowel [a]. Another difference is that the English vowel [:] has the feature [+mid], while Lukabras vowel [a] has the feature [+low]. Therefore, the English long vowel [:] is integrated in Lukabras as [a] because both are central vowels. Table 16 below exemplifies English vowel shortening process of the long vowel [:].

Table 16: Reduction of long vowel   [□:]

[□:]   [a]

English	Lukabras	Gloss
[k□tən]	[ekateni]	'Curtain'
[□□məs]	[etsamosi]	'Thermos'
[□□t]	[eli□ati]	'Shirt'
[sk□t]	[esikati]	'Skirt'
[n□səri]	[enasari]	'Nursery

4.9.2 Reduction of long vowel   [□:]

[□:]   [a]

The English long vowel [□:] is realized as the Lukabras low central vowel [a]. The two vowels are almost articulated in the same manner. The difference between the two vowels is that the articulation duration of the English vowel [□:] is longer than that of the Lukabras low central vowel [a]. Another difference is that the Lukabras vowel [a] is a central vowel while the English vowel [□:] is a back vowel. The English long back vowel [□:] and Lukabras central vowel [a] share the same feature [+ low]. Therefore, the English long low back vowel [□:] is realized as the Lukabras low central vowel [a] because both are low vowels.

Table 17 below illustrates discussed vowel reduction process.

Table 17: Reduction of the English Long Vowel [□:].

English	Lukabras	Gloss

[gl□s]	[ekil**a**si]	'Glass'
[□□:□ə]	[e□**a**□a]	'Charger'
[k□:r□ɲ]	[ekor**a**ni]	'Koran'
[g□ʧ:]	[e□i**a**]	'Guitar'
[h□dm□stə]	[omuhetim**a**sita]	'Headmaster'

Therefore, from Tables 16 and 17 above, a general phonological process can be represented as:

Process 4

□:   **[**a**]**

□:

The English vowels [□:]and [□:]are replaced by the Lukabras vowel [a].

4.9.3 Reduction of the English long vowel [u:]

[u:]   [u]

The English long high back vowel [u:] is realized as high back vowel [u] in Lukabras. Lukabras vowel inventory lacks the long high back vowel [u:] but has the simple high back vowel [u]. The only difference between the two vowels is in terms of articulation duration whereby the English vowel [u:] is longer than the Lukabras vowel [u]. Therefore, the English long high back vowel [u:] is integrated into the high back vowel [u] in Lukabras because they are both high back vowels.

Table 18 below illustrates the vowel reduction process of the English long vowel [u:] in Lukabras.

Table 18: Reduction of the long vowel [u:]

English	Lukabras	Gloss
[skr**u:**]	[e□isik**ɯ**]	'Screw'
[səl**u:**t]	[esal**u**ti]	'Salute'
[sk**u:**l]	[esuk**u**lu]	'School'
[st**u:**l]	[esit**u**lu]	'Stool'

The reduction process in Table 18 above can be represented as follows:

Process 5

    u: **[u]**

The English vowel [u:] is replaced by the Lukabras vowel [u].

4.10 Adaptation of English Diphthongs.

The Lukabras phonological system do not allow the occurrence of diphthongs. Due to this fact, the English diphthongs being integrated into Lukabras are adapted through monophthongization process which involves either vowel reduction or vowel coalescence.

4.10.1 Monophthongization of the English Diphthong [ə□].

[ə□]   **[o]**

The English diphthong [ə□] is realized as the mid, back vowel [o] in Lukabras .The pronunciation of diphthong [ə□]starts at a more retracted region near the centralized open vowel [o] and then the whole glide is accompanied by increased lip rounding. This makes the diphthong almost sound like the Lukabras vowel [o]. Therefore, Lukabras native speakers reduces the diphthong to vowel [o] since the Lukabras phonotactics do not allow diphthongs.

Table 19 illustrates the discussed monophthongization process.

Table 19: Monophthongization of the English diphthong [ə□]

English	Lukabras	Gloss
[sə□fə]	[es**o**fa]	'Sofa'
[sə□lə]	[es**o**la]	'Solar'
[rə□zəri]	[er**o**sari]	'Rosary'
[kə□t]	[elik**o**ti]	'Coat'
[p□al□]	[epil**o]**	'Pillow'
[stə□v]	[e□**u**fu]	'Stove'
[prə□grəm]	[epur**o**kuramu]	'Program'
[lə□kei□en]	[eloke□əni]	'Location'
[ə□**t**el]	[eoteli]	'Hotel'

The above simplification process can be represented as follows:

Process 6

ə□ [o]

The English diphthong [ə□] is replaced by the Lukabras vowel [o].

4.10.2 Simplification of Diphthong [a□]

[a□]   [au]

The English diphthong [a□] is realized as [au] in Lukabras. The Lukabras phonotactics allows the occurrence of the vowel sequence [au] but not the diphthong [a□]. Vowel sequence [au] appears in some of the Lukabras native words as exemplified in the table below:

Table 20: Lukabras Vowel sequence [au]

Lukabras	Gloss
[**au**ndi]	'Maybe'
[**au**ndu]	'Somewhere'
[**au**lire]	'He/she heard'

The English diphthong [a□] is almost rendered in the same manner as the Lukabras vowel sequence [au]. The difference between them is that the English diphthong [a□] is shorter in articulation duration than the Lukabras [au]. The Lukabras native speakers find it easy to render the English diphthong [a□] as [au] because they almost have the same manner and place of articulation.

This simplification process is illustrated in Table 21 below:

Table 21: Simplification of the English diphthong [aʊ]

English	Lukabras	Gloss
[ska ʊt]	[omusik**au**ti]	'Scout'
[əka ʊnt]	[eak**au**ndi]	'Account'
[ta ʊn]	[et**au**ni]	'Town'
[bla ʊz]	[epulausi]	'Blouse'

From Table 21 above, the following phonological process can be represent as follows:

Process 7

a ʊ   [au]

The English diphthong [a ʊ] is replaced by the Lukabras vowel sequence [au].

4.10.3 Exceptions to the rule.

  [a ʊ]   [a]

There are a few exceptional cases of loanwords in which the English diphthong [a ʊ] is realized

as [a]. This is as a result of teacher influenced learning model. Most loanwords are acquired in

the schools. In this case, the Lukabras native speakers acquire this pronunciation of their

bilingual teachers who did not acquire the right pronunciation of the English word.

The following Table 22 gives an example:

Table 22: Monophthongization of the English diphthong [aʊ]

English	Lukabras	Gloss
[kaʊnslə]	[omuk**a**nzola]	'Councilor'

The following general phonological process is formulated from table 21 and 22 above:

Process 8

a

[aʊ]   au

The English diphthong [aʊ]can either be replaced by [a] or [au] in Lukabras.

4.10.4 Monophthongization of the English Diphthong [eʊ].

 [eʊ]   **[e]**

The English diphthong [eʊ]is realized as the central mid vowel [e] in Lukabras. The Lukabras

phonotactics do not permit the occurrence of the diphthong [eʊ]but allows the occurrence of the

mid central vowel [e]. During the adaptation of the English diphthong [eʊ]the English vowel [ʊ]

is deleted and the diphthong reduced to [e] through vowel deletion process. The reason for

deletion is that Lukabras lacks the vowel [ʊ]The Lukabras native speakers find it easy to delete

what they lack, the English vowel [ʊ]and remain with what they have in their vowel inventory.

Table 23 below gives examples of the monophthongization process.

Table 23: Monophthongization of Diphthong [e□].

English	Lukabras	Gloss
[ke□k]	[ekeki]	'Cake'
[be□kəri]	[epekari]	'Bakery'
[re□diə□]	[eretio]	'Radio'
[bre□k]	[epureki]	'Brake'
[fre□m]	[efuremu]	'Frame'

The above phonological process in Table 23 can be represented as follows:

Process 9

        e□   **[e]**

The English diphthong [e□]s replaced by the Lukabras vowel [e].

4.10.5 Simplification of the English Diphthong [a□].

  [a□]   **[ai]**

The English diphthong [a□]s realized as [ai] in Lukabras. Lukabras vowel inventory has the low central vowel [a] but lacks the English mid high vowel [□]Thus, the English mid high vowel [□ is substituted with the Lukabras front high vowel [i] which is almost similar in articulation with the English mid high vowel [□]The English mid high vowel [□]and Lukabras high front vowel [i] share the properties [+high] and [+front]. The only difference between them height. In

addition, the vowel sequence [ai] exists in some Lukabras indigenous words as illustrated in the table below:

Table 24: Lukabras Vowel Sequence [ai]

Lukabras	Gloss
Omw**ai**	shepherd
Bul**ai**	good

Therefore, the Lukabras native speakers find it easy to articulate the English diphthong [a□] as [ai] because they are almost articulated at the same place.

Table 25 below exemplifies this simplification process:

Table 25: Simplification of the English Diphthong   [a□].

English	Lukabras	Gloss
[na□lən]	[en**ai**loni]	'Nylon'
[sta□l]	[esit**ai**li]	'Style'
[la□n]	[el**ai**ni]	'Line'
[da□r□ktə]	[omut**ai**rekita]	'Director'
[ta□ə]	[et**ai**ri]	'Tyre'

From table 25 above, the following phonological process is formulated:

Process 10

        aɪ   **[ai]**

The English diphthong [aɪ] is replaced by the Lukabras vowel sequence [ai].

4.11 Adaptation of English triphthongs.

Triphthongs mostly appear in the word medial and final positions in English words. There are a few cases of Lukabras loanwords from English which have triphthongs. English triphthongs are adapted in three different ways. First, they can be adapted through glide formation process whereby a semi vowel is introduced in the triphthong. Second, they can be adapted through vowel coalescence process in which two members of the triphthong are merged into one vowel. Lastly, triphthongs also adapt in Lukabras through vowel deletion process in which one vowel is deleted. A triphthong can adapt following one or two of these processes.

4.11.1 Adaptation of English triphthong [aɪə].

The English triphthong [aɪə] occurs both in word medial and final positions. When it occurs in Lukabras loanwords, first it is adapted through the glide formation process whereby the extra vowel is readjusted through the formation of the semi vowel [j]. Then, the English vowel [ə] is replaced by the Lukabras vowel [a] through vowel lowering process. This leads to the formation of the Lukabras vowel sequence [aja]. Examples of Lukabras words with vowel sequence [aja] include:

Table 26: Lukabras Vowel Sequence [aja].

Lukabras	Gloss
[ts**aja**]	'Incite'
[β**aja**]	'Play'
[t**aja**]	'Fetch'
[k**aja**]	'Rebuke'

Therefore, the English triphthong [a□ə]s adapted as [aja] in Lukabras as exemplified in Table 27 below:

Table 27: English Triphthong [a□ə].

English	Lukabras	Gloss
[kwa□ə]	[ekwaja]	'Choir'
[wa□ə]	[oluwaja]	'Wire'
[da□əri]	[etajari]	'Diary'

From Table 27 above, the following phonological process is derived:

Process 11

  a□ə   [aja]

The English triphthong [a□ə] is replaced by the Lukabras vowel sequence [aja].

4.11.2 Adaptation of English triphthong [□ə□].

The English triphthong [□ə□] is realized as [io] in Lukabras. This triphthong is adapted following two phonological processes. First, the diphthong [□ə] is readjusted by vowel deletion process whereby the English vowel [ə] is deleted. Then the remaining mid high vowel [□] is raised to high central vowel [i] because the Lukabras vowel inventory lacks the English vowel [□]. Second, the English vowel [□] is replaced by the Lukabras vowel [o] because both vowels are rounded. The final result of the adaptation of the English triphthong [□ə□] becomes [io].

Table 28 below exemplifies this simplification process:

Table 28: Simplification of English triphthong [□ə□].

English	Lukabras	Gloss
[re□d□ə□]	[eret**io**]	'Radio'
[v□d□ə□]	[eβit**io**]	'Video'

The following phonological process captures this simplification process:

Process 12

        □ə□   **[io]**

The English triphthong [□ə□ɪ] replaced by the Lukabras sequence of vowels [io].

4.12 Phonological adaptation of English consonants.

As discussed earlier, English has some consonants which are not present in the Lukabras consonant paradigm. This section describes the phonological processes which the alien English consonants undergo when being adapted in Lukabras. It also explains why the alien English consonants take the Lukabras shape instead of maintaining their English shape.

The following phonological processes are involved in the adaptation of the alien English consonants in Lukabras.

4.12.1 Devoicing of the English consonants.

As discussed earlier, some of the English voiced consonants do not occur in the Lukabras consonant paradigm. The following sections discuss the devoicing processes.

4.12.2 Devoicing of the English consonant [d].

  [d]   **[t]**

The English voiced bilabial stop [d] does not occur in the Lukabras consonant paradigm as discussed above. Whenever it occurs in loanwords, it's replaced by its voiceless counterpart [t]. The English voiced bilabial stop [d] and the Lukabras voiceless bilabial stop [t] share both manner and place of articulation but differ in the voicing feature. Lukabras native speakers find it easy to render the English consonant [d] as [t] because they have the same manner and place of articulation.

Table 29 below exemplifies this devoicing process.

Table 29: Devoicing of the English consonant [d]

English	Lukabras	Gloss
[reˈdiə□]	[eretio]	'Radio'
[d□str□kt]	[etisiturikiti]	'District'
[dæm]	[etamu]	'Dam'
[mædəm]	[omumatamu]	'Madam'
[h□dm□:stə]	[omuhetimasita]	'Headmaster'
[d□□]	[eti□i]	'Dish'

From table 29 above, the following phonological process can be derived:

Process 13

<div style="text-align:center">

d   **[t]**

</div>

The English consonant [d] is replaced by the Lukabras consonant [t].

4.12.3 Devoicing of the English consonant [□].

[□]   [□]

The English voiced palatal alveolar affricate [□] does not occur in the Lukabras consonant inventory. Whenever the English consonant [□] occurs in a loanword, it's replaced by its voiceless counterpart, the voiceless palatal alveolar affricate [□]. The English voiced palatal

alveolar affricate [□] and the Lukabras voiceless palatal alveolar affricate [□]share both manner and place of articulation but differ in the voicing feature. The Lukabras native speakers replace the English consonant [□] with the Lukabras consonant [□]because they both have the same place and manner of articulation.

Table 30 below gives examples of this devoicing process.

Table 30: Devoicing of consonant [□].

English	Lukabras	Gloss
[□□ː□ə]	[e□a̅a̅]	'Charger'
[kæb□□]	[ekaβi□i]	'Cabbage'
[fr□□]	[efuri□i]	'Fridge'
[□□g]	[e□a̅ki]	'Jug'
[**b**ænd□□]	[e**p**ande□i]	'Bandage'

The above data can be represented in the following phonological process:

Process 14

□   [□]

The English consonant [□] is replaced by the Lukabras consonant [□].

4.12.4 Devoicing of the English consonant [z].

[**z**]   [**s**]

The English voiced fricative consonant [z] is replaced by the Lukabras voiceless fricative consonant [s] during the adaptation process. The only difference between the two consonants is that [z] is voiced while [s] is voiceless. The Lukabras native speakers render the English consonant [z] as [s] because they have the same manner and place of articulation.

Table 31 below exemplifies this devoicing process:

Table 31: Devoicing of the English consonant [z].

English	Lukabras	Gloss
[bla□**z**]	[epulau**s**i]	'Blouse'
[rə□**z**əri]	[ero**s**ari]	'Rosary'
[riz□:v]	[eri**s**afu]	'Reserve'
[di:**z**l]	[eti**s**eli]	'Diesel'
[d□**z**n]	[eta**s**ani]	'Dozen'
[vi:**z**ə]	[eβi**s**a]	'Visa'

The data from table 31 can be represented in the following phonological process:

Process 15

z   s

4.12.5 Devoicing of the English consonant [b].

[**b**]   [**P**]

The Lukabras consonant paradigm lacks the voiced bilabial stop [b] but has the voiceless bilabial stop [p]. When the English voiced bilabial stop [b] occurs in the word initial position in a loanword, it adapts in Lukabras by being replaced with its voiceless counterpart [p] through devoicing process. The difference between the two consonants is that the English consonant [b] is voiced while the Lukabras consonant [p] is voiceless. Therefore, the Lukabras native speakers renders the English consonant [b] as [p] because they have the same place and manner of articulation.

Table 32 below exemplifies the devoicing process:

Table 32: Devoicing of the English consonant [b].

English	Lukabras	Gloss
[**be**□kəri]	[e**p**ekari]	'Bakery'
[**b**□□əp]	[omu**p**ishopu]	'Bishop'
[**bl**ædə]	[e**p**ulata]	'Bladder'
[**b**□m]	[e**p**omu]	'Bomb'
[**b**ætri]	[e**p**eturi]	'Battery'
[**b**ænd□□]	[e**p**ande□i]	'Bandage'
[**b**□ks]	[e**p**okisi]	'Box'

The above data can be represented in the following phonological process:

Process 16

b   p

4.12.6 Exceptions to the Rule.

 [b]   [f]

A few English loanwords which have voiced bilabial stop [b] at word initial position adapt in Lukabras by being replaced by the Lukabras voiceless labio-dental fricative [f]. The research happened to find only one example as illustrated below.

Table 33: Devoicing of the English consonant [b].

English	Lukabras	Gloss
[b□sk□t]	[ef isikuti]	'Biscuit'

The above data can be represented in the following phonological process:

Process 17

b   [f]

4.12.7 Devoicing of the English consonant [g].

 [g]   **[k]**

The Lukabras consonant paradigm lacks the English voiced velar stop [g]. This consonant adapts by being replaced by its counterpart which is the voiceless velar stop [k] through devoicing process. The disparity between the two consonants is that the English consonant [g] is voiced while the Lukabras consonant [k] is voiceless. The Kabras native speakers find it easy to render the English consonant [g] as [k] because they both have the same place and manner of articulation.

Table 34 below illustrates the devoicing process.

Table 34: Devoicing of the English consonant [g].

English	Lukabras	Gloss
[□□g]	[e□ki]	'Jug'
[gre□d]	[ekireti]	'Grade'
[prə□grəm]	[epurokuramu]	'Program'
[gl□:s]	[ekilasi]	'Glass'
[gær□:□]	[ekara□i]	'Garage'
[k□ge□t]	[ekoluketi]	'Colgate'

The above data can be represented in the following phonological process:

Process 18

g   **k**

4.12.8 Exceptions to the rule

 [g]   **[□]**

A few English loanwords with the voiced velar stop [g] adapt by being replaced by the Lukabras voiceless palatal affricate [□].This is an exception since the two consonants do not share any feature in their place and manner of articulation. Neither do they share the voicing feature. Therefore, the devoicing of the consonant [g] to [□]is arbitrary in Lukabras.

Table 35: Exceptions of the English Consonant [g].

English	Lukabras	Gloss
[g□t□:]	[e□ita]	'Guitar'
[r□gbi]	[era□iβi]	'Rugby'

The above data can be represented in the following phonological process:

Process 19

              g   **□**

4.12.9 Stop Weakening.

Some of the English stops adapt Lukabras by being replaced by the Lukabras continuants through stop weakening process. The English voiced bilabial stop [b] is not part of the Lukabras consonant inventory. It was noted that whenever the English voiced bilabial stop [b] occurs in

the word medial position in a loanword, it is replaced by the Lukabras voiced labio-dental fricative [β] through stop weakening process. The Lukabras native speakers render the English consonant [b] as [β] because they share the feature [+labial].

Table 36 below illustrates the stop weakening process in Lukabras.

4.12.9.1 Weakening of the English stop [b].

 [b]   **[β]**

Table 36: Weakening of the English stop [b].

English	Lukabras	English
[r□g**b**i]	[era□**β**i]	'Rugby'
[kæ**b**□□]	[eka**β**i□i]	'Cabbage'

The above data can be represented in the following phonological process:

Process 20

                 b   **β**

4.12.10 Consonant substitution.

Some of the English consonants which do not appear in the Lukabras consonant inventory adapt by being substituted with their exact counterparts in Lukabras.

4.12.10.1   Consonant substitution of the English consonant [v].

The English voiced labio-dental fricative [v] is not part of the Lukabras consonant inventory. Lukabras happens to have another version of the voiced labio-dental fricative which is [β]. The English voiced labio-dental fricative [v] and the Lukabras voiced labio-dental fricative [β] are both voiced and have the same place and manner of articulation. The only difference between the two consonants is that the English voiced labio-dental fricative [v] is released during its articulation while the Lukabras voiced labio-dental fricative [β] is always unreleased during its articulation. The Lukabras native speakers render the English consonant [v] as [β] because they are both voiced and have the same place and manner of articulation.

Table 37 below exemplifies this consonant substitution process in Lukabras.

Table 37: Consonant substitution of the English consonant [v].

English	Lukabras	Gloss
[k□vət]	[ekaluβati]	'Culvert'
[vərændə]	[eβeranda]	'Veranda'
[vest]	[eβesiti]	'Vest'
[v□di□ə]	[eβitio]	'Video'

The above data can be represented in the following phonological process:

Process 21

v   β

Therefore, a general process can be formulated based on the data represented on table 36 and 37 as follows:

Process 22

b   β

v

4.12.10.2   Consonant substitution of the English consonant [□].

[□]   [ts]

The English voiceless inter-dental fricative [□] is not part of the Lukabras consonant inventory. Whenever it occurs in Lukabras, it's replaced by the Lukabras voiceless alveolar affricate [ts] through the consonant substitution process. The English voiceless fricative [□] and the Lukabras voiceless affricate [ts] share the feature [-voiced]. The only difference is the place of articulation whereby the English continuant [□] is dental while the Lukabras affricate [ts] is alveolar. The Lukabras native speakers find it easy to articulate the English dental [□] as alveolar affricate [ts] because both are voiceless and their places of articulation immediately follow each other. The Lukabras native speakers find it easy to put the tip of the tongue at the alveolar ridge and produce the voiceless affricate [ts] as opposed to placing the tip of the tongue between the teeth to produce the voiceless fricative [□].

Table 38 below exemplifies the English consonant substitution process in Lukabras.

Table 38: Consonant substitution of the English consonant [□].

English	Lukabras	Gloss
[kæ□l□k]	[eka**ts**oliki]	'Catholic'
[□□:məs]	[e**ts**amosi]	'Thermos'
[□əm□m□tə]	[e**ts**amometa]	'Thermometer'

The above data can be represented in the following phonological process:

Process 23

□   **ts**

4.13 Conclusion

This chapter has discussed the phonological processes that English vowels and consonants undergo when being adapted in the Lukabras phonological structure. The bilingual speakers of English and Lukabras reproduce the English loanwords with their original sounds hence the English loanwords retain their etymological structure. This makes it easy to identify the English loanwords in Lukabras.

CHAPTER FIVE

SYLLABLE STRUCTURE ADAPTATION

The third objective of this study was to derive the phonotactic rules governing the adaptation of loanwords in Lukabras. This chapter deals with the derivation of the phonotactic rules for adaptation of English loanwords in Lukabras. First, using the CV Phonology theory, the study looked at the segmental association in Lukabras syllable structure. The study then looked at the English syllable structure. Then resyllabification processes of English syllables in loanwords were examined. Finally, this study presents the phonotactic processes of vowel epenthesis and derived the phonotactic rules of loanwords in Lukabras.

5.1 Introduction

The marked English syllable structures which integrate into Lukabras as loanwords are normally unmarked during the adaptation process so that they can fit into the Lukabras syllable structure. The unmarking of the marked English syllables is achieved through the re-syllabification processes.

The chief function of re-syllabification lies in the unmarking of a word for the purposes of acceptance in the recipient language.

The principle of markedness is used in generative phonology in which the markedness values are considered universal and natural (Katamba 1989; Cairns & Feisten 1982; Hyman 1975; Chomsky & Halle 1968). The markedness principle has also been extended to the autosegmental phonology studies whereby the skeletal tier unmarks the marked syllable structures of any language (Clements, 1986). The unmarking is done by the association lines whereby the C-element associates with a consonant segment while the V- element associates with a vowel segment at the skeletal tier. Therefore, whenever there is markedness in any alien syllable from the English loanwords at the syllable tier, skeletal tier, segmental tier or in the associations of these three tiers, there are necessary adjustments in the phonological structure of alien syllables. These syllable adjustments unmark the marked English syllables in the Lukabras English loanwords. For example, the English word **[spænə]** is adapted in Lukabras as **[esipana].** In the word 'spanner', the onset syllable has a consonant cluster [sp] which is marked in Lukabras. Therefore, this alien consonant cluster is unmarked at the timing tier whereby the English syllable is resyllabified through the addition of epenthic vowel [i]. Hence the consonant cluster is broken into CVCV syllable structure which is acceptable in Lukabras. In diagrams, the unmarking of the marked English syllable structure can be represented as follows:

Syllable -tier   σ   σ

⌐

Timing-tier   C   C   V   C   V

Segmental tier   s   p   æ   n   ə
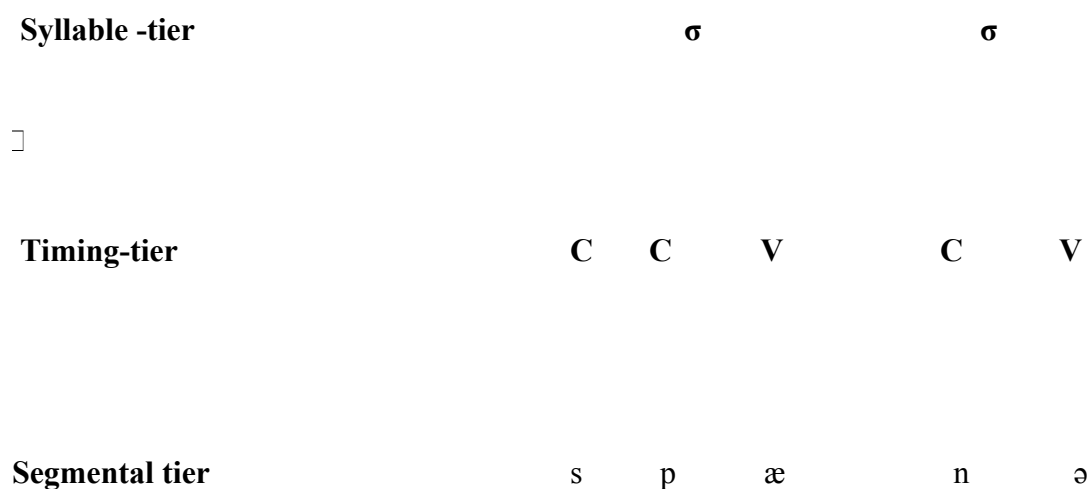
Fig. 2: Marked English syllable structure in Lukabras.

Syllable -tier   σ   σ   σ   σ

⌐

 Timing-tier   V   C   V   C   V   C   V   (unmarking)

Segmental tier   e   s   i   p   a   n   a

Fig. 3: The unmarked English syllable structure in Lukabras.

5.2 The Unmarked Associations.

 Lukabras has the canonical syllable structure of V, CV and VCV. Thus, a syllable can be made up of a single vowel, a combination of a consonant and a vowel or a vowel followed by a consonant and then another vowel. In CV phonology, a syllable is analyzed in three tiers which are the syllable tier, skeletal or timing tier and segmental tier. Using this theory, the Lukabras syllable structure can be presented as follows:

Lukabras   **Gloss**

[e]   'yes'

Syllable -tier   σ

 Timing-tier   V

Segmental tier   e

Lukabras   **Gloss**

[ta]   'no'

 Syllable -tier   σ

⌉

 Timing-tier   C   V

Segmental tier   t   a

Lukabras	Gloss
[ano]	'here'

Syllable tier   σ

Timing-tier   V   C   V

Segmental tier   a   n   o

Lukabras	Gloss
[indana]	'baby'

Syllable -tier   σ   σ   σ

⌉

Timing-tier   V   C   V   C   V

Segmental tier   i   nd   a   n   a

All the marked English syllables are unmarked at the skeletal or timing tier of the CV phonology. The unmarking is done in such a way that the C-element always dominates the consonant while the V-element always dominates a vowel as shown below:

     V   C   V   C   V   C   V

e	s	i	k	a	t	i

Consonant clusters are rare in Lukabras but it has complex phonemes. The complex phonemes are prenasalised plosives [mb, nd,] prenasalised fricative [nz] and [mw] which are made up of a nasal followed by a glide. The table below gives the Lukabras words which exemplify these complex phonemes:

Table 39: Lukabras consonant clusters

Lukabras	Gloss
[**mb**ula]	'I don't have'
[**mb**ere]	'I was'
[i**mb**i]	'Bad'
[i**nd**ika]	'Bicycle'
[i**nd**e□e]	'Airplane'
[i**nz**u]	'House'
[o**mw**ami]	'Lord'

The occurrence of marked consonant clusters is the most common case of markedness in Lukabras loanwords. Lukabras do not allow consonant clusters because of its CV shape syllable structure while English allows a number of consonant clusters. When alien English consonant clusters get in Lukabras through loanwords, they violate the Lukabras syllable structure and thus trigger re-syllabification rules to unmark the marked syllables.

5.3 The English Syllable Structure.

The following table provides the English syllable structure based on Goldsmith (1995):

Table 40: English Syllable Structure.

V	'a'
VC	'at'
VCC	'ask'
CV	'to'
CVC	'cat'
CCV	'store'
CCVC	'stop'
CVCC	'salt'
CCVCC	'sticks'
CVCCC	'sands'
CCCVC	'struck'
CCCVCC	'striked'
CCCVCCCC	'scrambled'

(Source: Goldsmith, 1995)

English onset clusters can comprise two or three consonants. The two onset consonant clusters include:[pr, tr, kr, br, dr, gr, fr, □r, □r, pl, kl, bl, gl, fl, sl, sw, sp]. The three onset clusters always begin with the consonant [s] and must be followed by a voiceless stop. They include: [spr, str, skr, spj, skj, skl].

According to Roach (2002), English has 55 final two-consonant clusters, 40 three-consonant clusters and 7 four-consonant clusters. The two-consonant clusters usually end with /s, z, t, d, θ/ which represent separate morphemes. They include: starting with oral plosive: pθ, pt, ps, bd, bz, tθ, ts, dz, kθ, kt, ks, gd, gz ; starting with nasal plosive: mp, mf, mt, md, mz, nθ, nt, nd, ns, nz, n□ n□ŋθ, ŋt, ŋd, ŋz, ŋk, ŋg ; starting with fricative: fθ, ft, fs, vd, vz, θs, δd, δz, sp, st, sk, zd, □t,□ɖ starting with approximant: lp, lf, lθ, lt, ld, ls, lz, lk ; starting with affricate: □t,□d

The final three-consonant clusters usually end with /s, z, t, d/ which, as already mentioned, can easily be accounted for by morphology since they represent separate morphemes. They include: starting with oral plosive: pθs, pts, pst, tθs, tst, kθs, kts, kst ; starting with nasal plosive: mps, mft, mfs, mts, mst, nts, ndz, n□tn□dnts, ŋst ; starting with fricative: fθs, fθl, fts, sts; starting with approximant: lmd, lmz, lpt, lps, lbd, lbz, lft, lvd, lθs, lnd, lnz, ldz, l□tl□dl□tlks, lkt.

The final four-consonants clusters in English are usually formed by the three-consonant cluster not containing final /s, z, t, d/ as separate morphemes and the sound form of the suffixes -(e)s and -(e)d. They include: starting with oral plosive: ksθs, ksts; starting with nasal plosive: mpts, ntst; starting with approximant: lfθs, ltst, lkts.

English has both onset and coda consonant clusters which Lukabras lacks. This calls for resyllabification process when English consonant are being adapted in Lukabras through loanwords.

5.4 Re-syllabification processes.

5.4.1 Introduction.

Lukabras and English have totally different syllable structures. This means that the English loanwords adopted by Lukabras have to be adapted by undergoing re-syllabification processes for them to fit into the Lukabras syllable structure. This section describes the general adaptation processes that English consonant clusters undergo when realized in Lukabras.

5.4.2 Pronominal Affixation.

All nouns in Lukabras have nominal prefixes. Foreign nouns which are adopted in Lukabras are first morphologically conditioned and nativised through nominal prefixation. Therefore, both native nouns and loan nouns have vocalics at word beginnings. The pronominal affixes normally mark number based on the Lukabras nominal class which the adopted noun fall under. The pronominal affixes are classified into pre-prefixation and prefixation affixes. Both prefixes and pre-prefixes are used to mark number and tense in Lukabras as illustrated in Table 41 below:

Table 41: Lukabras affixes

Lukabras	pre-prefix	prefix	Mark Number	Noun class	Gloss
[**omu**purofesa] 'professor'	'o'	'mu'	singular		one
[**eli**shati]	'e'	'li'	singular	four	'shirt'
[**e**keki]	-	'e'	singular	six	'cake'

From the above table, it's evidenced that Lukabras has two pre-prefixation morphemes. The pre-prefixation morpheme [e] marks singularity in all non-human nouns and the pre-prefixation morpheme [o] which marks singularity in all nouns which refer to human beings. In addition, all the non-human nouns which happen to have the pre-prefixation morpheme [e] are always followed by the prefixation of [li] morpheme which also marks number in the fourth Lukabras nominal class.

Nouns which refer to human beings take the pre-prefixation morpheme [o] followed by the prefixation morpheme [mu]. Both morphemes mark number and first nominal class in the Lukabras as shown in the above table. However, there are a few exceptions which take both pre-prefixation of the morpheme [o] and prefixation of morpheme [mu] though they are non-human. The following are examples:

Table 42: Exceptions to the Lukabras Human Prefixes

Lukabras	prefix	Mark Number	Gloss
[omukunda]	'omu'	singular	'Land'
[omusweta]	'omu'	singular	'Sweater'

5.4.3 Resyllabification processes

5.4.3.1 Vowel Epenthesis

Vowel epenthesis is one of the Lukabras resyllabification process in loanwords. It is the insertion of a vowel between two consonants in a syllable. Lukabras phonotactics does not allow consonant clusters since it has an open CV syllable structure. English words consist of consonant clusters which cannot be accommodated in the Lukabras phonological structure. Therefore, English loanwords with alien consonant clusters have to be resyllabified so that they can fit into

the Lukabras phonological structure. These alien consonants are resyllabified in Lukabras through the addition of epenthic vowels which break the consonant clusters. The study found out that Lukabras has only two epenthic vowels, [i] and [u]. The data below explains the syllabic patterns that loanwords undergo during vowel epenthesis. It also shows how the English consonant clusters are broken for the purpose of making them conform to the Lukabras consonant structure.

5.4.3.1.1 Insertion of [i].

The epenthic vowel [i] breaks up the English consonant clusters which are made up of either a sibilant [s] or a voiceless velar stop [k] followed by a liquid or a stop. The Lukabras speakers find it easy to co-articulate the Lukabras front high vowel [i] with the velar and alveolar consonants because they have almost the same manner of articulation. The Lukabras front high vowel [i], the English velar and alveolar consonants are articulated with the back and tip of the tongue raised to the roof of the oral cavity respectively. Hence both velar and alveolar consonants are articulated by raising the tongue. The epenthic vowel [i] breaks the English consonant clusters [sk, ks, kl, kt, st, gr, gl, sp] in Lukabras English loanwords. The following table gives examples of epenthesized English loanwords which contain the consonant clusters mentioned in this section.

Table 43: [kt, ks kl, sk, sp, st, gr, gl] clusters.

English	Lukabras	Gloss
[fæktər□]	[efa**ki**tori]	'Factory'
[kənd□**kt**ə]	[omukonda**kit**a]	'Bus conductor'
[tæ**ks**□]	[eta**ki**si]	'Taxi'
[s□**ks]**	[eso**ki**si]	'Socks'
[**kl**□b]	[e**kil**aβu]	'Club'
[**kl**□:s]	[e**kil**asi]	'Class'
[**sk**□:t]	[e**si**kati]	'Skirt'
[d□**sk**]	[ete**si**ki]	'Desk'
[**sp**ænə]	[e**si**pana]	'Spanner'
[ho**sp**□tl]	[e**si**pitali]	'Hospital'
[plæ**st**□k]	[epula**si**tiki]	'Plastic'
[**st**r□:]	[e**si**turo]	'Straw'

[**skru**ː]	[e**sik**uru]	'Screw'
[**skræ**□]	[esikira□i]	'Scratch'
griːs]	[e**kir**isi]	'Grease'
[**gl**□ːs]	[e**kil**asi]	'Glass'

Note: In [gr] and [gl] consonant clusters, the English voiced velar stop consonant [g] first adapts by being replaced by the Lukabras voiceless velar stop consonant [k]. The Lukabras consonant inventory lacks the voiced velar stop [g] so the English voiced velar stop [g] is substituted with its counterpart which is the voiceless velar stop [k] through the devoicing process. Then, epenthic vowel [i] is inserted between the consonant clusters

From Table 43, we can formulate the following resyllabification rule:

 Rule 1

Ø   **i**   **[velar stop/ alveolar fricative] -----------#**

The epenthic vowel [i] is always preceded by a velar stop or alveolar fricative.

5.4.3.1.2 Vowel epenthesis [u].

The study found out that the epenthic vowel [u] is usually inserted after the English bilabial consonant. This is because during the articulation of both bilabial consonants and the back high vowel [u], lips are used, therefore, Lukabras native speakers find it easy to co-articulate them.

Also, the back rounded vowel [u] is preferred to [o] because [u] is more frequent in Lukabras words than [o]. The epenthic vowel [u] is used to break the English consonant clusters [pr, pt, p□ bl, br] in loanwords. It was noted that the epenthic vowel [u] occurs in a consonant cluster which is preceded by a bilabial consonant. The data below exemplifies this.

Table 44: [pr, p□pt, br, bl] clusters.

English	Lukabras	Gloss
[**pr**ə□grəm]	[e**pur**okuramu]	'Program'
[s**pr**□ŋ]	[esi**pur**iŋi]	'Spring'
[kər□**p**ɨn]	[ekora**pu**ɕɵni]	'Corruption'
[kæpte□n]	[omuka**put**eni]	'Captain'
[ta**p̃ra**□tə]	[eta**pur**eta]	'Typewriter'
[**br**□□]	[e**pur**a□i]	'Brush'
[zə**br**ə]	[ese**pur**a]	'Zebra crossing'
[**bl**æde]	[e**pul**ata]	'Bladder'

From Table 44, we can formulate the following resyllabification rule:

Rule 2

Ø   u   [bilabial] -----------#

The epenthic vowel [u] is inserted after a labial.

5.4.3.2 Insertion of the final vowel.

Lukabras has an open syllable structure hence words take the CVCV shape. Some of the English loanwords which integrate into Lukabras have closed syllable structure which take the CVC shape. Since Lukabras phonotactics do not allow the closed syllable structure, a final epenthic vowel is always added in order to maintain the preferred Lukabras word shape of CVCV. Lukabras has two final epenthic vowels which are [i] and [u]. The following data exemplify the occurrence of the two Lukabras final vowels.

5.4.3.2.1 Insertion of the final epenthic vowel [u].

The final epenthic vowel [u] is added to the English loans with closed syllables which end in the labial consonants. As discussed above, Lukabras native speakers find it easy to co-articulate the high back round vowel [u] with the bilabial consonants because lips are used in their articulation. These English labial consonants are [b, p, m] as illustrated in the table below.

Table 45: Final epenthic vowel [u].

English	Lukabras	Gloss
[klʌ**b**]	[ekila**βu**]	'Club'
[glə**b**]	[ekulo**βu**]	'Globe'
[**pr**əgrə**m**]	[e**pur**okura**mu**]	'Program'
[**m**ædə**m**]	[omumata**mu**]	'Madam'
[dæ**m**]	[eta**mu**]	'Dam'
[**b**ɪ**p**ʃ]	[omu**p**iʃ**pu**]	'Bishop'
[pʌm**p**]	[epam**pu**]	'Water pump'
[mæ**p**]	[ema**pu**]	'Map'

Note: from the above table, consonant sequence has been allowed in the loanword 'epampu' where we have two consonants [m] and [p] follow each other. This is not arbitrary. Lukabras consonant paradigm has complex phonemes which are prenasalised as discussed earlier. Since the first consonant [m] is a nasal followed by a stop, the Lukabras native speakers articulate it as a prenasalised stop but not as a two-consonant cluster.

Table 46 gives us the resyllabification rule:

Rule 3

Ø   u   --------- [bilabial]

The final vowel [u] is inserted word finally after a labial consonant.

5.4.3.2.2 Insertion of the final vowel [i].

The final vowel [i] is added to all the other English final consonants provided they are not labial as shown in the table below.

Table 46: Final vowel [i].

English	Lukabras	Gloss
[**br**□□]	[e**pura**□i]	'Brush'
[b□**ks**]	[epo**kisi**]	'Box'
[hosp□tl]	[e**siβ**itali]	'Hospital'
[**kl**□□]	[e**kila**□i]	'Clutch'
[d□**sk**]	[ete**siki**]	'Desk'
[b□**sk**□t]	[efi**sik**iti]	'Biscuit'

From Table 46, we can formulate the following resyllabification rule:

Rule 4

Ø   **i**   **---------- [bilabial]**

The epenthic vowel [i] is inserted word finally after final consonants which are not labial consonants.

5.5 Conclusion.

Lukabras has an open CV shaped syllable structure which is was analyzed by the universal theory of syllable, CV phonology. All the marked English syllable structures in loanwords are

unmarked at the timing tier of the CV phonology theory. The unmarking of the English syllables is done in order to achieve the well-formedness of the forms which are acceptable to the Lukabras syllable structure. Vowel epenthesis is the most dominant strategy of unmarking the alien English syllable structures in Lukabras English loanwords.

CHAPTER SIX

FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction.

The main aim of this study was to describe the phonological processes during English loanword adaptation in Lukabras. The study had three objectives to accomplish.

i.   To compare Lukabras and English phonetic inventories.

ii.   To describe the phonological processes employed in the adaptation of loanwords in Lukabras.

iii.   To derive the phonotactic rules governing the adaptation of loanwords in Lukabras

6.2 Findings.

All the English nouns which are adopted by Lukabras are first morphologically conditioned and nativised through nominal prefixation. The reason is that all the Lukabras nouns have prefixes. The Lukabras pronominal affixes are [e, o, mu, li]. The pronominal affixes are assigned to the English loanwords based on the Lukabras noun class that the respective English loanword falls under.

The following bulleting give findings on how the alien English vowels, consonants and syllable structures adapt in Lukabras.

➢ **English Pure Vowels**

English pure vowels which do not occur in Lukabras include [□, æ, ə, □].The English pure vowels [□, æ, ə] adapt by being replaced by the Lukabras low central vowel [a] through vowel lowering process while [□]s replaced by the Lukabras vowel [i] through vowel raising process. Example of vowel lowering process is seen in the English word *'spanner'*, transcribed as *'[spænə]'* and is adapted as '*[esipana]*' in Lukabras. In this loanword, the English vowels [æ] and [ə] have been lowered to the Lukabras vowel [a]. An example of vowel raising process is also seen in the English word 'fridge', transcribed as '[fr□]' and adapted as '[efurichi]' in Lukabras. From the example, the English vowel [□]s raised to the Lukabras vowel [i].

➢ **English Long Vowels**

English long vowels [□:,□:,u:] adapt by being reduced to Lukabras pure vowels. The English long vowels [a:] and [□:]are reduced to the Lukabras pure vowel [a], while [u:] is reduced to [u] through vowel reduction process. Example of these loanwords include '*thermos'*, *'glass'*, and '*screw'* transcribed as *'[□□məs]'*, *'[gl□s]'*, *'[skru:]'* and adapted as'*[etsamosi]'*,'*[ekilasi]'* and *'[esikuru]'* in Lukabras.

➢ **English Diphthongs**

English diphthongs [ə□]and [e□]are realized as monophthongs in Lukabras. English diphthong [ə□] is replaced by the Lukabras vowel [o] and [e□] is replaced by [e] through monophthongization process. For example the English noun '*solar'* transcribed as *'[sə□lə]'* adapts in Lukabras as *'[esola]'* and *'cake'* transcribed as *'[ke□k]'* adapts as '*[ekeki]'* in Lukabras.

English diphthong [a□]is adapted as [au] and [a□]as [ai] in Lukabras through simplification process. This is due to the fact that Lukabras phonotactics allows the occurrence of [au] and [ai] vowel sequences. Examples of the nouns include: 'town' transcribed as [ta□n]' adapted as '[et**au**ni]'; 'nylon' transcribed as '[na□□ən]', adapted as '[en**ai**loni]' in Lukabras.

➢ **English Triphthongs**

The English triphthong [a□ə]is replaced by the Lukabras vowel sequence [aja] through glide formation and vowel lowering processes. Example, the English noun '*choir'* transcribed as *'[kwa□þ]'* adapts in Lukabras as *'[ekw**aja**]'*.

The English triphthong [əʊ] is realized as [io] in Lukabras through vowel deletion and vowel raising processes. E.g., the English noun *'radio'*, transcribed as *'[reɪdəʊ]'* adapts in Lukabras as *'[eretio]'*

➢ **English Consonants**

The English voiced consonants [b, d, , z, g] are replaced by their voiceless counterparts through devoicing process.

❖ The English consonant [b] is replaced by [p] only in word initial position.

❖ The English voiced consonant [b] is replaced by the Lukabras voiced labio-dental fricative [β] in word final position through stop weakening process.

❖ The voiced labio-dental fricative [v] is replaced by the Lukabras voiced labio-dental [β] through consonant substitution process. The disparity between the two consonants is that the English consonant [v] is released while the Lukabras consonant [β] is unreleased. The English voiceless dental fricatives [] is replaced by the Lukabras voiceless affricate [ts].

➢ **English Syllable Structures**

The complex English consonant clusters which occur in loanwords are resyllabified through simplification process known as vowel epenthesis. The Lukabras has [i] and [u] epenthic vowels. Epenthic vowel [u] is usually preceded by a labial consonant while the epenthic vowel [i] breaks all the other consonant clusters which are not labials.

➢ **Exceptions**

A few exceptions to the phonological adaptation processes were discovered. First, in the adaptation of English vowels in Lukabras, it was discovered that in few loanwords, the English

vowel [ə] is realized as the Lukabras vowel [o] instead of [a]. Second, the English diphthong [a☐] is realized as [a] instead of [au]. English consonant [b] is realized as [f] in the word initial position instead of [p]. Lastly, the English consonant [g] is realized as [☐]instead of [k].

6.3 Conclusion.

Based on the data that has been analyzed in this study, we can conclude that Lukabras adapts loanwords phonologically by vowel lowering, vowel raising, reduction of long vowels, monophthongization of diphthongs, devoicing of consonants, stop weakening and consonant substitution processes. Any loanword which enters Lukabras is assimilated both morphologically and phonemically so as to fit into the Lukabras' morphological and phonological structure.

6.4 Recommendations for Further Research.

This study was limited to the study of phonological adaptation of English loanwords, specifically nouns, in Lukabras. This implies that there are other related areas on which future research could focus. These areas would include:

a) Phonological adaptation of English verbs, adverbs and adjectives in Lukabras.

b) Phonological adaptation of Kiswahili loanwords in Lukabras.

c) Phonological adaptation of loanwords from other Luhya dialects neighboring the Kabras people. For example phonological adaptation of loanwords from Abamarachi, Abanyala and Abaisukha in Lukabras.

d) Stress, rhythm and intonation of Lukabras.

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APPENDICES

APPENDIX 1

RESULTS OF THE QUESTIONNAIRE USED

SECTION A: LIVESTOCK AND AGRICULTURE

What are the names of the following English items in Lukabras?

ENGLISH	LUKABRAS	TRANSCRIPTION
Hammer	inyundo	[i□undo]
Wire	oluwaya	[oluwaja]
Gate	eshiribwa	[e□iriβwa]
Tractor	eturakita	[eturakita]
Dairy	eteri	[eteri]
Dam	etamu	[etamu]
Sickle	Olukhayo	[oluxajo]
Tank	elitangi	[elitangi]
Pump	epampu	[empampu]
Spanner	esipana	[esipana]
Avocado	elikato	[elikato]
Orange	elichungwa	[eli□ugŋwa]
ENGLISH	**LUKABRAS**	**TRANSCRIPTION**
Cabbage	ekabichi	[ekaβi□i]

| Napier grass | olusu | [olusu] |

SECTION B   : CLOTHING

What are the Lukabras names of the following clothing items?

ENGLISH	LUKABRAS	TRANSCRIPTION
Blouse	epulausi	[epulausi]
Skirt	esikati	[esikati]
Trouser	elong'i	[eloŋi]
Shoes	eshilaro	[e□ilaro]
Towel	etaulo	[etaulo]
Jeans	echinzi	[e□inzi]
Sweater	esweta / omusweta	[esweta / omusweta]
Jacket	echaketi / elichaketi	[e□aketi/eli□aketi]
Blanket	omurungeti	[omurugŋeti]
Sheet	olubala	[oluβala]
Pillow	epilo	[epilo]

ENGLISH	LUKABRAS	TRANSCRIPTION
Vest	ebesiti	[eβesiti]
Nylon	enailoni	[enailoni]
Socks	esokisi	[esokisi]
Tie	etayi	[etaji]
Coat	ekoti /elikoti	[ekoti/ elikoti]

Suit	esuti	[esuti]
T-shirt	etishati /elitishati	[eti☐at𝑖 eliti☐ati]
Net	eneti	[eneti]

SECTION C: HOUSEHOLD

What are the Lukabras names of the following household items?

ENGLISH	LUKABRAS	TRANSCRIPTION
Carpet	ekapeti	[ekapeti]
Sofa set	esofa	[esofa]
Glass	ekilasi	[ekilasi]
Cupboard	ekabati	[ekaβati]
Television	eshing'ang'aliro	[e☐iŋaŋaliro]

ENGLISH	LUKABRAS	TRANSCRIPTION
Radio	eretio	[eretio]
Solar	esola	[esola]
Basin	elipesheni	[elipe☐eni]
Fridge	efurichi	[efuri☐i]
Tray	eturei	[eturei]
Stove	esitofu	[esitofu]
Chimney	echumuni	[e☐umuni]
Stool	esitulu	[esitulu]
Cushion	ekushoni	[eku☐oni]
Curtain	ekateni	[ekateni]

Thermos flask	etsamosi	[etsamosi]
Charger	echacha	[e□a□a]
Jug	echaki	[e□aki]

SECTION D: MUSIC

What are the Lukabras names of the following musical items?

ENGLISH	LUKABRAS	TRANSCRIPTION
Bass	epesi	[epesi]
Tenor	etana	[etena]
Soprano	esapurano	[esapurano]
Alto	eyaluto	[ejaluto]
Choir	ekwaya	[ekwaja]
Keyboard	eshikipoti	[e□ikipoti]
Piano	epiyano	[epijano]
Compact	ekompakiti	[ekompakiti]
Drum	indumba	[indumba]
Guitar	echita	[e□ita]

SECTION E: ADMINISTRATION

What are the Lukabras names of the following political and administration aspects?

ENGLISH	LUKABRAS	TRANSCRIPTION
Mayor	omumeya	[omumeja]

ENGLISH	LUKABRAS	TRANSCRIPTION
Government	omukabana	[omukaβana]
County	ekaundi	[ekaundi]
District	etisiturikiti	[etisiturikiti]
Councilor	omukanzola	[omukanzola]
Minister	omuminisita	[omuminisita]
Senator	omuseneta	[omuseneta]
Chief	omuchifu	[omu☐ifu]
Commission	ekomishoni	[ekomi☐oni]
Patron	omupaturoni	[omupaturoni]
Magistrate	omumachisitureti	[omuma☐isitureti]
Lawyer	omuloya	[omuloja]
Court	ekoti	[ekoti]
Location	elokeshoni	[eloke☐oni]

SECTION F: RELIGION

What are the Lukabras names of the following religious aspects?

ENGLISH	LUKABRAS	TRANSCRIPTION
Bible	ebanjeli	[eβa☐eli]
Catechist	omukatakista	[omukatakista]

Catholic	ekatoliki	[ekatoliki]
Koran	ekurani	[ekurani]
Bishop	omupishopu	[omupi☐opu]
Paradise	eparatiso	[eparatiso]
Gospel	ebanjeli	[eβa☐eli]
Mass	emisa	[emisa]
Sacrament	esakaramendi	[esakaramendi]
Christ	[kristo]	[kristo]

SECTION G: TECHNOLOGY

What are the Lukabras names of the following technological items?

ENGLISH	LUKABRAS	TRANSCRIPTION
Computer	ekompuyuta	[ekompujuta]
Laptop	elaputopu	[elaputopu]
Battery	epeturi	[epeturi]
ENGLISH	**LUKABRAS**	**TRANSCRIPTION**
Video	ebitio	[eβitio]
Cinema	esinema	[esinema]
Brake	eburechi	[eβure☐]
Motor-car	omutoka	[omutoka]
Tyre	etairi	[etairi]
Torch	etochi	[eto☐i]
Camera	ekamera	[ekamera]

Meter	[emita]	[emita]
Kilometer	[ekilometa]	[ekilometa]

SECTION I: SPORTS AND GAMES

What are the Lukabras names of the following games and sports aspects?

ENGLISH	LUKABRAS	TRANSCRIPTION
Coach	omukochi	[omuko□i]
Card	ekati	[ekati]
Corner	ekona	[ekona]
Penalty	epenoti	[epenoti]

ENGLISH	LUKABRAS	TRANSCRIPTION
Ticket	etikiti	[etikiti]
Rally	erali	[erali]
Rugby	erachibi	[era□iβi]
Referee	omurefa	[omurefa]
Tennis	etenisi	[etenisi]

SECTION J: BUILDING

What are the Lukabras names of the following items in building?

ENGLISH	LUKABRAS	TRANSCRIPTION
Bolt	eporoti	[eporoti]
Bath-room	epafu	[epafu]
Foundation	omusinji	[omusin□i]

Sitting-room	obweru	[oβueru]
Frame	efuremu	[efuremu]
Cement	esimiti	[esimiti]
Glue	ekamu	[ekamu]
Socket	esoketi	[esoketi]

ENGLISH	LUKABRAS	TRANSCRIPTION
Screw	esikuru	[esikuru]
Pliers	epulaisi	[epulaisi]
Sink	esinji	[esin□i]
Spanner	esipana	[esipana]
Bulb	apalupu	[epalupu]
Culvert	ekalabati	[ekalaβati]
Veranda	eberanda	[eβaranda]

SECTION K: EDUCATION

What are the Lukabras names of the following educational aspects?

ENGLISH	LUKABRAS	TRANSCRIPTION
Cardboard	ekatipoti	[ekatipoti]
Stapler	esitepula	[esitepula]
Pin	epini	[epini]
Certificate	esatifiketi	[esatifiketi]
Form	efomu	[efomu]
Library	elaipurari	[elaipurari]

ENGLISH	LUKABRAS	TRANSCRIPTION
Office	eofisi	[eofisi]
Chalk	echoka	[e□oka]
Notebook	eshitabu	[e□itaβu]
Pencil	epenzo	[epenzo]
Uniform	indifomu	[indifomu]
Number	enamba	[enamba]
Grade	ekireti	[ekireti]
Ruler	erula	[erula]
Reserve	erisafu	[erisafu]
Bag	omufuko	[omufuko]
School	esikulu	[esikulu]
Primary	epuraimari	[epuraimari]
Secondary	esekondari	[esekondari]
College	ekolechi	[ekole□i]
Degree	etikiri	[etikiri]
Diploma	etipuloma	[etipuloma]
Principle	omupurinzipo	[omupurinzipo]
ENGLISH	LUKABRAS	TRANSCRIPTION
Line	elaini	[elaini]
Class	ekilasi	[ekilasi]
Madam	omumatamu	[omumatamu]
Diary	etayari	[etajari]

Biro	epairo	[epairo]
Rubber	erapa	[erapa]
Fees	efisi	[efisi]
File	efaili	[efaili]
Promotion	epuromoshoni	[epuromoʃoni]
Demotion	etimoshoni	[etimoshoni]
Calculator	ekalikileta	[ekalikileta]
Geometrical Set	eseti	[eseti]
Parade	epareti	[epareti]
Scout	omusikauti	[omusikauti]
Drama	eturama	[eturama]
Nursery	enasari	[enasari]
Insurance	epima	[epima]

ENGLISH	LUKABRAS	TRANSCRIPTION
Holiday	liyonga	[elijoŋa]
Clerk	omukilaki	[omukilaki]
Secretary	omukarani	[omukarani]
Pension	epenishoni	[epeniʃoni]
Leave	elifu	[elifu]
Contract	ekondurakiti	[ekondurakiti]
Bursar	omupasa	[omupasa]
Messenger	omumesenja	[omumesenʤa]
Patron	omupaturoni	[omupaturoni]

Professor	omupurofesa	[omupurofesa]

SECTION L: HEALTH

What are the Lukabras name of the following health aspects?

ENGLISH	LUKABRAS	TRANSCRIPTION
Thermometer	etsamometa	[etsamometa]
Bandage	epandechi	[epande□i]
Hospital	esibitali	[esiβitali]

ENGLISH	LUKABRAS	TRANSCRIPTION
Nurse	omuroboli	[omuroβoli]
Napkin	enapukini	[enapukini]
Ward	ewoti	[ewoti]
Mortuary	emochari	[emo□ari]
Pamper	epampa	[epampa]

SECTION N: FOODSTUFF

What are the Lukabras names of the following foodstuff items?

ENGLISH	LUKABRAS	TRANSCRIPTION
Soda	esota	[esota]
Biscuit	efisikuti	[efisikuti]
Sweet	eswiti	[eswiti]
Cake	ekeki	[ekeki]
Cream	ekirimu	[ekirimu]

Soup	esupu	[esupu]
Chocolate	echokoleti	[eɕokoleti]
Blue band	epulupandi	[epulupandi]
ENGLISH	**LUKABRAS**	**TRANSCRIPTION**
Chips	etsichipusi	[etsiɕipusi]

SECTION O: BEAUTY CARE

What are the Lukabras names of the following beauty care items?

ENGLISH	**LUKABRAS**	**TRANSCRIPTION**
Blow drier	epuloturaya	[epuroturaja]
Jelly comb	eshichanuo	[eɕiɕanuo]
Sink	esinji	[esinɟi]
Peace	episi	[episi]
Chemical	ekemiko	[ekemiko]
Pin	epini	[epini]
Quetex	ekutekisi	[ekutekisi]
Powder	epota	[epota]
Weave	ewibu	[ewiβu]
Towel	etaulo	[etaulo]
Apron	eliapuroni	[aliapuroni]
Scissors	amakasi	[amakasi]

SECTION P: TRANSPORT AND COMMUNICATION

What are the Lukabras names of the following transport and communication items?

ENGLISH	LUKABRAS	TRANSCRIPTION
Bus	epasi	[epasi]
Tarmac road	elami	[elami]
Lorry	elori	[elori]
Motorbike	epikipiki	[epikipiki]
Driver	omundereβa	[omundereβa]
Taxi	etakisi	[etakisi]
Tyre	etairi	[etairi]
Diesel	etiseli	[etiseli]
Petrol	epeturoli	[epeturoli]
Mobile phone	olusimu	[olusimu]

APPENDIX 2

SAMPLE LOANWORDS COLLECTED FROM THE FIELD STUDY.

English	Lukabras	Gloss
1. [spænə]	[e☐ipa**n**]	'Spanner'
2. [senətə]	[omusenet**a**]	'Senator'
3. [kæmərə]	[ekamer**a**]	'Camera'
4. [sə☐fə]	[esofa]	'Sofa'
5. [s☐ələ]	[esola]	'Solar'

6. [mi:tə]   [emita]   'Meter'

7. [mɪnɪstə]   [omuminisita]   'Minister'

8. [peɪtɹn]   [omupaturoni]   'Patron'

9. [bɪʃəp]   [omupiʃopu]   'Bishop'

10. [kəmpækt]   [ekompakiti]   'Music compact'

11. [klʌb]   [ekilaβu]   'Club'

12. [ʤʌg]   [eʤaki]   'Jug'

13. [pʌmp]   [epampu]   'Pump'

14. [bʌs]   [epasi]   'Bus'

15. [kʌlvət]   [ekaluβati]   'Culvert'

16. [kʌmpənɪ]   [ekampuni]   'Company'

17. [kəndʌktə]   [omukondakita]   'Bus Conductor'

18. [mædəm]   [omumatamu]   'Madam'

19. [dæm]   [etamu]   'Dam'

English   **Lukabras**   **Gloss**

20. [skænə]   [eʃisikana]   'Scanner'

21. [vərændə]   [eβeranda]   'Veranda'

22. [kæmpeɪn]   [ekampeni]   'Campaign'

23. [kæbɪʤ]   [ekaβiʤi]   'Cabbage'

24. [tæksi]   [etakisi]   'Taxi'

25. [fæktərɪ]   [efakitori]   'Factory'

26. [blædə]   [epulata]   'Bladder'

27. [prɪ̃tsɪpəl]   [omupurinsipo]   'Principal'

28. [frɪʤ]   [efurichi]   'Fridge'

29. [tenɪs]   [etenisi]   'Tennis'

30. [ʧɪmni]   [eʧimuni]   'Chimney'

31. [kəmɪti]   [ekomiti]   'Committee'

32. [kæθəlɪk]   [ekatsoliki]   'Catholic'

33. [kɜtən]   [ekateni]   'Curtain'

34. [θɜməs]   [etsamosi]   'Thermos'

35. [ʃɜt]   [eliʃati]   'Shirt'

36. [skɜt]   [esikati]   'Skirt'

37. [nɜsəri]   [enasari]   'Nursery'

38. [rizɜv]   [erisafu]   'Reserve'

39. [glɑs]   [ekilasi]   'Glass'

40. [ʧɑːʤə]   [eʧaʤa]   'Charger'

41. [kɔːrɑn]   [ekorani]   'Koran'

English   **Lukabras**   **Gloss**

42. [gɪtɑː]   [eʧita]   'Guitar'

43. [hɛdmɑstə]   [omuhetimasita]   'Headmaster'

44. [skru:]   [eʧisikuɯ]   'Screw'

45. [səlu:t]   [esaluti]   'Salute'

46. [sku:l]   [esukulu]   'School'

47. [stu:l]   [esitulu]   'Stool'

48. [rəʊzəri]   [erosari]   'Rosary'

49. [kəʊt]   [elikoti]   'Coat'

50. [pɪləʊ]   [epilo]   'Pillow'

51. [stəʊv]   [esitifu]   'Stove'

52. [prəʊgrəm]   [epurokuramu]   'Program'

53. [ləʊkeiʃen]   [elokeʃəni]   'Location'

54. [skaʊt]   [omusikauti]   'Scout'

55. [əkaʊnt]   [eakaunti]   'Account'

56. [taʊn]   [etauni]   'Town'

57. [blaʊz]   [epulausi]   'Blouse'

58. [kaʊntə]   [ekaunta]   'Counter'

59. [keɪk]   [ekeki]   'Cake'

60. [beɪkəri]   [epekari]   'Bakery'

61. [reɪdiəʊ]   [eretio]   'Radio'

62. [breɪk]   [epureki]   'Brake'

63. [freɪm]   [efuremu]   'Frame'

English   **Lukabras**   **Gloss**

64. [naɪlən]   [enailoni]   'Nylon'

65. [staɪl]   [esitaili]   'Style'

66. [laɪn]   [elaini]   'Line'

67. [taɪə]   [etairi]   'Tyre'

68. [kwaɪə]   [ekwaja]   'choir'

69. [waɪə]   [oluwaja]   'Wire'

70. [daɪəri]   [etajari]   'Diary'

71. [re□ɖə□]   [eretio]   'Radio'

72. [v□ɖə□]   [eβitio]   'Video'

73. [b□ks]   [epokisi]   'Box'

74. [b□sk□t]   [efisikuti]   'Biscuit'

75. [kæ□l□k]   [ekatsoliki]   'Catholic'

76. [□□:məs]   [etsamosi]   'Thermos'

77. [□əm□m□tə]   [etsamometa]   'Thermometer'

78. [s□ks]   [esokisi]   'Socks'

79. [hosp□tl]   [esiβitali]   'Hospital'

80. [plæst□k]   [epulasitiki]   'Plastic'

81. [str□:]   [esituro]   'Straw