CHAPTER I

INTRODUCTION

1.1Background of The Study

Language is an important means of communication. It also has a crucial role in the development of human intellectuality, society, and emotion. One of the languages that are widely used in this global era is English. It is used in airports, books, computers, drug packages, food packages, and so on. It also functions as a lingua franca; a language that is used by people who speak different native languages. Harmer (2001: 1) defines "a lingua franca as a language that is used for communication between two speakers who have different native languages and both or one of them use English as the second language." Since a lingua franca is a language used in communication among people from different countries who have different native languages, English has an important role in building up and maintaining smooth communication as well as a good relationship among those people.

Learning English is very important but the mother tongue language is also important. For instance, the writer's mother tongue language is Toba Batak Language. Toba Batak language is also the same as other languages which have grammar and phonemes that should be learning. Toba Batak Language is a language spoken by the Toba Batak people. "'Batak' is the term that refers to congeries of culturally related groups or tribes who inhabit the greater part of hinterland of the province of North Sumatera in the center of which is located in Toba Lake. "(Viner, 1979:90).

Learning a language means learning linguistics. Linguistics is the science of language. This science makes language its object. Linguistics has some

branches such as Morphology, Syntax, Semantics, Pragmatics, and Phonology. Richard and Schmidt (2002: 283) define "linguistics as the study of language as a system of human communication."

In this study, the writer uses Phonology especially Phonemes. "Phonology is a study of sound systems and its processes involving the way on how to pronounce the words" (Radford & Atkinson, 2009:5). Phonology is the study of linguistic systems, specifically how sound represents differences of meaning in a language. It has traditionally focused largely on the study of systems of phonemes in particular languages, therefore used to be also called phonemic, but it may also cover any linguistics analysis either at a level beneath the word (including syllable, onset, and rime, articulatory gestures, articulatory features, etc.) or at all levels of language where sound is considered to be structured for conveying linguistics meaning.

Hornby (2000) states that "phoneme is any one of the sets of smallest units of speech in a language that distinguishes one word from another." A phoneme may consist of several phonetically distinct articulations, which are regarded as identical by native speakers, since one articulation may be substituted for another without any change of meaning. Thus /p/ and /b/ are separate phonemes in English because they distinguish such words as pet and bet, whereas the light and dark /l/ sounds in little are not separate phonemes since they may be transposed without changing meaning. It is constantly found in language study that several distinct sounds in a language have to be considered as if they were one for orthographic, grammatical, and semantic purposes. Thus although the English k's in ki:p (keep), ko:l (call), and ku:l (cool) are distinct sounds, practical linguistics purposes must

treat them as if they were the same. Many of the elements of language commonly termed "sounds" or "essential sounds" are in reality small families of sounds, each family consisting of an important sound of the language together with other related sounds which, so to speak, "represent" it in particular sequences or under particular conditions of length, stress or intonation.

Consonant is a speech sound that is articulated with a complete or partial closure of the vocal tract. Examples are [p], pronounced with the lips; [t], pronounced with the front of the tongue; [k], pronounced with the back of the tongue; [h], pronounced in the throat; [f] and [s], pronounced by forcing air through a narrow channel (fricatives); and [m] and [n], which have air flowing through the nose (nasals). Contrasting with consonants are vowels. The vowel is a syllabic speech sound pronounced without any stricture in the vocal tract. Vowels are one of the two principal classes of speech sounds, the other being the consonant. Vowels vary in quality, in loudness, and also in quantity (length). They are usually voiced and are closely involved in prosodic variations such as tone, intonation, and stress. The vowel is commonly used to refer both to vowel sounds and to the written symbols that represent them (a, e, i, o, u, and sometimes y).

In this study, the writer discusses The Comperative Study of Toba Bataknese Phoneme with English Phoneme as Found in Christmas Song. Comperative studies are the studies to demonstrate the ability to examine, compare and contrast subjects or ideas. Comperative study shows how two subjects are similar or show how two subjects are different. "Comperative research can be traced to a long history that has gained much attention in current research due to globalization, technological advances, etc. on cross-national

platforms (Azarian, 2011). The reason why the author chose this title is that this title is still rarely studied. As for what is related to this title, what is studied is not the phoneme but about its morphology, verbs, etc. So the writer decided to do a research entitled The Comperative Study of Toba Bataknese Phoneme With English Phoneme as Found in Christmass Song.

1.2. Problem of The Study

The problems of the study are as follows:

- 1. What consonants and vowels are found in English Christmas Song and Batak Toba Christmas Song?
- 2. What are the differences and similarities of consonants and vowels between English Christmas Song and Batak Toba Christmas Song?

1.3. Objective of The Study

The objectives of the study are:

- To know the consonants and vowels in English Christmas Song and Batak
 Toba Christmas Song
- 2. To find out the differences and similarities of consonants and vowels between English Christmas Song and Batak Toba Christmas Song

1.4. Scope of The Study

This study only focused on the Comperative Study of segmental phonemes (consonants, vowels) between English Christmas Song and Batak Toba Christmas Song.

1.5. Significance of The Study

The significances of this study are as follows:

1. Theoretical

The result of the study could give:

- 1) A new perspective in analyzing phonemes at languages.
- 2) As a new model at research in morphology in analyzing phonemes.

The writer hopes that this study will be useful for students at any department to make a positive contribution to the information of the theory.

- 1. To give information about Comperative Study to the readers.
- 2. To introduce the readers to Batak Toba Language.

2. Practical

- The writer expects that this study can help students Batak Toba to understand English phonemes and also can help researchers in English to understand Batak Toba Language phonemes.
- 2. To help teachers teach Batak Toba language to students

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework

This chapter will present a literature review and explanation of the related material. This consists of, the definition of phonology, definition phoneme, definition consonant, definition vowel, and definition christmas song. Some opinions are needed to explain some of the concepts or terms used in the research.

2.2 Comperative Study

Comperative research is a research methodology in the social sciences that aims to make comparisons across different countries or cultures. A major problem in comparative research is that the data sets in different countries may not use the same categories, or define categories differently (for example by using different definitions of poverty). Comperative research or analysis is a broad term that includes both quantitative and qualitative comparisons of social entities (Melinda, 2003: 109). Melinda also stated the underlying goal of comperative analysis is to search for similarity and variance. Those searching for similarity (i.e. the regression equation) often apply a more general theory and search for universals or underlying general processes across different contexts.

1. The Development of Comperative Study

Most authors are more conservative in their estimate of how long comparative research has been with us. It is largely an empty debate over the

definition of the tradition with those questioning whether comparing things counts as comparative research (Tama, 2014: 29).

2.3. Phonology

Phonology is a study of sound systems and their processes involving the way on how to pronounce words (Radford & Atkinson, 2009:5). It concerns the sound structures in human language. It is different from phonetics which focuses on the description of speech sounds (the acoustic bases of speech) because phonology is a process to find out the patterns of speech sound. According to Spencer (1996:2), phonology deals with something phonological and mental so it requires a mature native speaker to achieve a particular linguistic effect.

In phonology, there are concepts to different segments such as phone, phoneme, and allophone. The phone is the sound that we produce when using a language. Meanwhile, a phoneme is the smallest meaningful unit of sound that can distinguish meaning. It is called an abstract unit. A phoneme is a concept which does not have phonetics representations before its merges with another sound. Allophone is the phonetics representation of the same phone. It is a set of possible spoken sounds produced in pronouncing one single phoneme. Both phone and allophone are enclosed in brackets [] while phoneme is enclosed in slashes

2.4. Phoneme

A phoneme is the smallest unit of sound that has the function to distinguish the meaning. A phoneme can be divided into future segmental (vowel and consonant) and suprasegmental (tone and pauses). The segmental is relate to suprasegmental, it can be an element to distinguish the meaning (Muslich, 2010). The acquired phonemes are /d/ , /g/, /j/, /p/, /b/, /r/, /s/, /m, and /ŋ/. Roach (2009) defines that in establishing the set of phonemes of a language, it is usual to demonstrate the independent, contrastive nature of a phoneme by citing pairs of words that differ in one sound only and have different meanings. For instance, the /s/ in 'soar' distinguishes it from /r/ in 'roar', as it becomes different from 'soar' in pronunciation as well as meaning.

2.4.1 Vowel

In phonetics, a vowel is a sound in spoken language, with two competing definitions. In the more common phonetic definition, a vowel is a sound pronounced with an open vocal tract so that the tongue does not touch the lips, teeth, or roof of the mouth, such as the English 'ah" /ɑ:/ or "oh" /oʊ/. There is no build-up of air pressure at any point above the glottis. This contrasts with consonants, such as the English "sh" [ʃ:], which have a constriction or closure at some point along the vocal tract. In the other, phonological definition, a vowel is defined as syllabic, the sound that forms the peak of a syllable. A phonetically equivalent but nonsyllabic sound is a semivowel. Vowels are voiced sounds produced when there is vibration in vocal cords (Kelly, 2000 : 5).

2.4.2. Consonant

A consonant is a speech sound that is articulated with a complete or partial closure of the vocal tract. Examples are [p], pronounced with the lips; [t], pronounced with the front of the tongue; [k], pronounced with the back of the tongue; [h], pronounced in the throat; [f] and [s], pronounced by forcing air through a narrow channel (fricatives); and [m] and [n], which have air flowing through the nose (nasals). According to Celce-Murcia (1996, 44), consonants are phonemes that are not vowels, in other words, are realized by obstruction. So the airflow through the mouth is blocked at places of articulation.

2.5. English

English is a language that started in Anglo-Saxon England. It is originally from Anglo-Frisian and Old Saxon dialects. English now has the status of a global language, because it is used worldwide. There are about 375 million native speakers (people who use it as their first language) in the world Curtis, Andy (2006, 192). English is the only official language or one of the official languages of nearly 60 countries, and it is also the main language of most countries in the world, like in the United Kingdom, Ireland, the United States, Canada, Singapore, India, Hong Kong, and South Africa. It is also the main language in Australia and New Zealand and is widely spoken in parts of the Caribbean, Africa and South Asia.

2.6. Toba Batak Language

Toba Batak (/'toobə 'bætək/) is an Austronesian language spoken in North Sumatra province in Indonesia. It is part of a group of languages called "Batak". According to Samosir " The Toba Batak Language, the language spoken by Toba Batak people is included in the Malay language family which has a typical grammar system and its meaning. The Toba Batak language is unique, poor in words which can explain the general, very rich in this, that differentiate the particular. For example, it has no word for the monkey in general. But it has a name for each particular kind of monkey."

2.7. Toba Batak Language Phoneme

2.7.1. Consonant

Phonemes are found by comparing two different utterances in which the difference is signaled by only one significant feature. Two such utterances are called a minimal pair. Thus in the pair pála (buah pala) 'nutmeg' – bála (musibah) 'plague', the difference in content is recognized by any native speaker of Batak as caused by the initial sounds, or more specifically consonants, /p/ and /b/. The phoneme status of /p/ and /b/ can further be established by comparing other pairs,

as: pége 'ginger' - bége 'hear'

Consonant Chart		Bilabial	Alveodental	Alveolar	Alveopalatal	Velar	Glottal
Stops	Voiceless	P	t			k	
	Voiced	ь		d		g	
Fricative	Voiceless			S			h
	Voiced						
Afficate	Voiceless				¢		
	Voiced				j		
Nasal	Voiceless						
Nasaii	Voiced	m		n		ŋ	
Lingual	Lateral			1			
	Trill			ſ	у		
Semi							
Vowel	Voiced	W					

Picture 1. Consonant in Bahasa Batak Toba below was cited from A Grammar of Toba Batak (Nababan, 1981:12)

1. The Stops

/p/ A voiceless bilabial stop. It occurs initially as in /p a t/ ' foo t ', medially as in /dápur/ 'kitchen', and finally as in /álap/ 'fetch'. When final the /p/ is never released except when the following word begins with a vowel. A released final /p/ sounds foreign to a Batak ear, as often occurs when a foreigner learns Batak. This language habit of not releasing a final /p/ maybe because the corresponding voiced stop /b/ never occurs finally so that no mishearing can result from not releasing the final bilabial stop.

/b/ A voiced bilabial stop. It occurs in initial and medial positions; initially in /bása/ 'generous', medially in /ábit/ 'clothes'. It never occurs in the final position. When a /b/ occurs in the final position originally in borrowed words, the tendency is to preserve a, b in spelling, but it is invariable pronounced as /p/, e.g., bab 'chapter', an Arabic loanword, pronounced /bap/.

/t/ A voiced alveo-dental stop. The tip of the tongue touches the back of the upper teeth and the gum. It does not exactly correspond to /d/ as to place of articulation as the /d/ is articulated more to the back. It occurs in all three positions; initial position as in /táli/ 'rope', in medial position as in / láta/ ' seed ', and in final position as in /hɔt/ ' fixed '. Like the /p/, /t/ in final position is as a rule not released.

/d/ A voiced alveolar stop . It occurs in initial and medial positions only, as in /dátu/ 'medicine man' and /ida/ 'see'. In loanwords where the /d/ originally occurs in final position, though still spelled with a, d, it is pronounced /t/ in Batak,

as in /abad/ 'century', an Arabic loanword, which is pronounced /ábat/, even though there by a homophone is created with the native word /ábat/ 'obstacre '.

/k/ A voiceless velar stop. It occurs in all three positions, initially as in /káti/ 'a measure of weight', medially as in /tɔko/ 'shop ', and finally as in /rɔtak/ 'crack'. Its occurrence in initial and medial position is a recent development of Batak through borrowings. For its relationship to /h/, see under /h/. When a final /k/ is followed by a vowel, either in a suffix or a following word, it is changed into /h/. For example: / hɔdok/ 'perspiration '

/ hôdohi/ ' the perspiration '

/ának/ 'son '

/ânahón/ 'this son'

But in loanwords the / k / may be preserved or not , thus for example /kôtaki/ is found beside /kôtahi/ 'the box '. The / k / in final position, in contrast with the other two voiceless stops /p/ and /t/, is always released.

/g/ A voiced velar stop. It occurs only in initial and medial position, as in /gádɔŋ/ 'potato' and /Iágu/ ' favor'.

2. The Fricatives

/s/ A voiceless alveolar fricative. It occurs in all three positions, initially in /sáda/ 'one ', medially in /hósa/ 'breath' and finally in / hipás/ 'hearthy'. /h/ A voiceless glottal fricative. It occurs with a single exception only in initial and medial positions, as in /hɔ/ 'you', in /ihur/ 'tail', and /hóhɔs/ 'belt'. The only instance in the writer's idiolect in which /h/ is found in final position is /ah/ 'an interjection of reluctance or refusal', meaning something like 'Oh, no, I won ' t '.

Some words, in which /h/ occurs in medial position between a preceding stressed vowel and a following unlike and unstressed one, are in stylistic free variation with forms without a medial /h/, for example /áhu/ which varies with /áu/. The first form, /áhu/, is used in very formal situations, whereas /au/ is used in ordinary conversation

3. The Affricates

/c/ A voiceless alveo-palatel affricate. It has more front articulation than its English counterpart. It is found in initial and medial positions. In native Batak words it is found only in medial position, as in /páca/ 'platform', /macái/ 'very', etc. In initial position it is found only in loanwords, as in: /cátu/ 'ration', /cúka/ 'vinegar', etc.

One peculiarity of the /c/ which may well be mentioned here is the fact that in the medial position it has the effect of a double consonant on the preceding vowel, i.e., shortening it. However, this does not seem to be the case with /c/, as in the first place, only one variety of /c/ exists in the medial position, and secondly, there is no such difference of length between an initial /c/ and the medial shortening /c/ as there is in the case of the other consonants. Many speakers of Batak have /ss/ instead of /c/ in medial position, thus: /massái/ for /macái/ 'very', etc. This /c/ sound is not mentioned in Lopez's study (1939) but then, it is the result of the analysis of the Batak language of the 1900s. In modern Batak /c/ is a full-fledged and more and more extensively used phoneme.

/j/ A voiced alveo-palatal affricate. This is, in contrast with /c/, an original Batak phoneme. It is found in initial and final positions, as in: /jábu/ 'house', /já1a/ 'and ', /rája/ 'tired'. People who pronounce the /c/ as /ss/ tend to pronounce the /j/

as /z/, especially in medial position, thus: /zábu/ for /jabu/, /lóza/ for /loja/. In Batak the affricates, /c/ and /j/, do not occur in final position, hence the difficulty for a Batak to learn the final /c/ and /j/ in other languages, such as English.

4. The Nasals

/m/ A voiced bilabial nasal. It occurs in all three positions, as: /máŋan/ 'eat ', /émɛ/ 'unhusked rice', /ásɔm/ 'Lime'. /n/ A voiced alveolar nasal. It occurs in all three positions, as in: /ná1a/ 'flame', /gúna/ 'use', /ipɔn/ ' tooth '. /ŋ/ A voiced velar nasal. It occurs in all three positions, as in: /ŋali/ 'cold', /duŋɔ/ 'wake up ', /hépɛŋ/ 'money '.

The occurrence of $/\eta$ / in the initial position tends to be a little troublesome for people with a language background in which the $/\eta$ / does not occur initially, as English for example. It may therefore be worth noting that there are two words in each of which the $/\eta$ / occurs in all three positions, i.e.: $/\eta$ aná η / 'open ', and $/\eta$ o η o η / 'idle'.

5. The Linguals

/l/ A voiced alveolar lateral lingual. It occurs in all three positions, as in: /láta/ 'seed ', /sáli/ 'borrow ', /sihɔl/ 'longing, n. ' /r/ A voiced alveolar trilled lingual. It occurs in all three positions, as in: /rája/ 'king', /mára/ 'danger ', /sár/ 'widespread'. Another noteworthy characteristic of /r/ is the fact that for most people it changes into /l/ when the following sound is /l/ without an intervening juncture, as for example in:

6. The Semi vowels

The semivowels /w/ and /y/ occur in Batak only in their consonantal function. The semivowel is a rather recent development in the Batak soundstructure. Lopez (1939: 17) does not include these two in his list of Toba-Batak sounds. The semivowel came into Batak through loanwords and through the contact of its speakers with other languages. The /y/ is a regular feature in the Mandailing Batak dialect, and the /w/ and /y/ are common phonemes in Modern Indonesian. Brands tetter (1915: 17) includes both semivowels in the sound system of Primitive Indonesian. The Toba-Batak dialect seems to have dropped them in the course of its development, and in rustic pronunciation the /w/ still tends to be substituted by /o/ and the /y/ by /i/.

/w/ A voiced bilabial semivowel. Its most common occurrence is in medial position, as in :

/báwaŋ/ 'onion'

/máwas/ 'orangutan'

It also occurs initially in loanwrods not quite naturalised ye, as in:

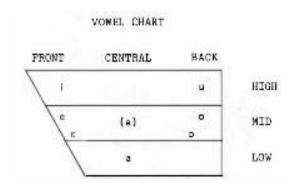
/wáktu/ ' tempo'

/wáras/ 'sane'

/y/ A voiced alveo-palatal semivowel. It occurs in initial and medial positions, as in: /yúran/ 'contribution', /sáyur/ 'vegetabte greens', /láyar/ 'sail'

2.7.2. Vowel

Languages differ in many respects, amongst others in the number and articulation of the consonants. But the vowels show at least as well-marked differences. Even native speakers of the same language show considerable variations in their vowels depending on their geographical and sociological situations. It is the vowels that give learners of the spoken language one of the greatest difficulties. Batak also differs from English more in the vowel sounds than in the consonants.



Picture 2. Vowel in Bahasa Batak Toba below were cited from A Grammar of Toba Batak (Nababan, 1981:12)

When we compare the following minimal pairs:

/mira/ 'male duck ' /móra/ 'richness' /mára/ 'danger '

/méra/ 'purple' /múra/ 'easiness'

five different vowels are found contrasting, namely: /i/, / ϵ /, /a/, /u/, /ɔ/. By comparing:

/dia/ 'what ' /dóa/ 'invoaate'

/déa/ 'lure, vb. ' /dúa/ 'two '

Two other vowels are found, namely, /e/, /o/, thus making the number of vowels seven. To establish the phonemic status of these seven each, one should be contrasted with the other six in minimal pairs. This is already accomplished for /i/ and /u/ in the two groups of minimal pairs above. Minimal pairs to contrast /a/ with /e/ and /o/ follow below:

/a/ with /e/: /hita/ - 'we '

/a/ with /o/: /tibba/ - 'scoop'

However, they are sufficiently dissimilar phonetically to override suspicion, as /o/ is a higher mid back tense vowel, while $/\epsilon/$ is lower mid front lax, and /o/ is a lower mid back lax vowel, while /e/ is higher mid front tense

The case of /e/ and / ϵ /, and that of /o/ and / ϵ / will be discussed afterwards.

/a/ and /i/: /hata/ - 'word ' /hita/ - 'we'

/a/ and /u/: /ala/ - ' cause ' /úla/ - ' do; work '

/a/ and /o/: /báru/ - 'recent ' /bóru/ - 'daughter '

/a/ and /ɔ/: /ra/ - 'probably' /rɔ/ - ' come '

/a/ and /e/: /séga/ - 'defect' /sége/ - ' sieve '

/a/ and /ɛ/: /máta/ - 'eye' /mátɛ/ - 'dead '

/u/ and /o/: /úli/ - 'beauty' /óli/ - 'marry '

/u/ and /ɔ/: /tuk/ - 'enough' /tok/ - ' headache '

/u/ and /i/: /úla/ - 'do ' /ila/ - 'shyness'

/u/ and /e/: /bégu/ - ' ghost ' /bége/ - ' hear '

/u/ and /ɛ/: /túan/ - 'gentleman' /sáɛ/ - 'finished'

/i/ and /o/: /silu/ - 'hurry ' /sólu/ - 'boat'

/i/ and /ɔ/: /ri/ - 'a kind of grass' /rɔ/ - ' come '

/i/ and /e/: /sige/ - ' ladder ' /éda/ - ' female cousin'

/i/ and /ɛ/: /isi/ - 'fill ' /isɛ/ - 'who'

The only minimal pairs that can be found for /o/ and $/\epsilon/$, and for /o/ and $/\epsilon/$, and the reason why they are to be regarded as different phonemes, have been given above. This leaves us still two suspicious pairs, namely: $/e/ - - /\epsilon/$, and /o/ - - /o/.

These two pairs consist of members that have phonetic similarity. In articulation, /e/ is different from /ɛ/ only in tenseness and the height of the tongue - and this difference in tongue position can be very small - and in the same way is /o/ different from /ɔ/. Brandstetter (1915 : 18) notes that in many living Indonesian languages some vowels have two shades (' Nuancen '). This could be the case in older Batak, but in modern Batak we have to do, not with two shades of one vowel, but with two different vowel phonemes. Lopez (1939 : 17) agrees with Brandstetter's finding when he says that there are five vowels in Toba-Batak.

2.8. Phonemes in English

1. Consonant

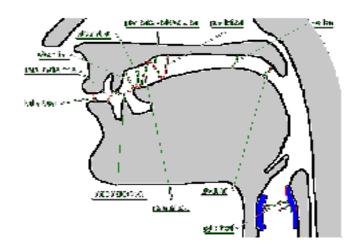
This study is primarily concerned with pronunciation and errors. Therefore, it is necessary to mainly review segmental phonemes. Segmental phonemes are divided into two types which are consonants and vowels. In this part, only English consonants are discussed because the main focus of this study is only on English consonants. According to Ladefoged, consonants are produced with some obstruction of the airstream in the vocal tract (1993:5). Thus, consonants are characterized as a group of sounds that is produced by constraining the airflow in the vocal tract. There are 24 English consonants, which are classified into two groups based on their place of articulation and manner of articulation.

	Bilabial	Labio- dental	Dental	Alv	eolar	Palato- alveolar	Palatal	Velar	Glottal
Plosive/Stop	p b	.0		t	d			k g	7
Nasal	m				n			ŋ	
Fricative		f v		S	Z	J 3			
Affricate						t∫ dʒ			
Approximant	(w)				r		j	(w)	h
Lateral approximant					1				

1. Place of Articulation

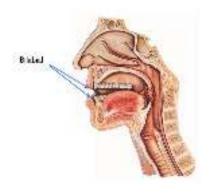
Firstly, the consonants are classified based on their place of articulation. Place of articulation refers to the where in the vocal tract the speech sounds are produced. Ladefoged classifies consonants based on the place of articulation specifically

as follows:



1) Bilabial

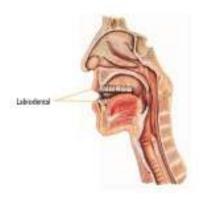
Bilabial sounds are articulated by bringing both lips together (Ladefoged, 1993:6). [p], [b], [m] are included as bilabial sounds.



- (1) /p/ as in "purse" and "rap"
- (2) /b/ as in "back" and "cab"
- (3) /m/ as in "mad" and "clam"

2) Labiodental

Labiodental sounds, [f] and [v], are produced by raising the lower lip up to the upper front teeth (Ladefoged, 1993:6).



- (1) /f/ as in "fro" and "calf"
- (2) /v/ as in "vine" and "have"

3) Dental

[δ] and [θ] are classified as dental sounds made with the tongue tip and upper front teeth. According to Ladefoged, there is a difference between American English and British English in producing the sounds [δ] and [θ]. Most speakers of American English produce both sounds by inserting the tip of the tongue between the upper and lower teeth, while most speakers of British English produce the sounds by putting the tip of the tongue close behind the upper teeth. In order to distinguish it, American English uses a term, interdental, to classify [δ] and [θ] (Ladefoged, 1993:6).

