

PLOSIVE CONSONANTS IN ENGLISH AND MINANGNESE

Firdayanti Firdaus

English Education Department
University of Potensi Utama Medan, North Sumatera
Firdayanti.firdaus95@gmail.com

Abstract: This Study deals with plosive consonants in English and Minangnese. The method of research used was descriptive qualitative method. It was conducted to find out the similarities and differences between English and Minangnese plosive consonants in investigating the learning problems of English by Minangnese speakers. In conducting the data, documentary and recording technique were done. Then, the data were analyzed based on the four procedures of Randal Whitman (1970). Those are description, selection, contrast, and prediction. The findings indicate that there were similarities and differences between English and Minangnese plosive consonants. The similarities are in the place of articulation at bilabial [b, p], alveolar [d], and velars [g, k] in initial and medial positions, and in their state of the vocal cords, having the same voiced and voiceless sound. The differences are in their numbers, allophones, final positions, aspirations, and the place of articulation at [t] sound, which is alveolar in English but it is dental in Minangnese.

Keywords: *Plosive consonants, English, Minangnese*

Abstrak: Penelitian ini membahas konsonan plosif dalam bahasa Inggris dan bahasa Minang. Metode penelitian yang digunakan adalah metode deskriptif kualitatif. Hal ini dilakukan untuk mengetahui persamaan dan perbedaan antara konsonan bahasa Inggris dan bahasa Minang dalam menyelidiki masalah belajar bahasa Inggris oleh penutur bahasa Minang. Dalam melakukan teknik pengumpulan data, dokumenter dan perekaman dilakukan. Kemudian, data dianalisis berdasarkan pada empat prosedur Randal Whitman (1970). Empat prosedur itu adalah deskripsi, seleksi, kontras, dan prediksi. Temuan menunjukkan bahwa ada persamaan dan perbedaan antara konsonan plosif bahasa Inggris dan bahasa Minang. Kesamaan adalah di tempat artikulasi bilabial [b, p], alveolar [d], dan velars [g, k] di posisi awal dan medial, dan pada keadaan dari pita suara mereka, memiliki bunyi suara yang sama. Perbedaannya ada dalam jumlah mereka, alofon, posisi akhir, aspirasi, dan tempat artikulasi pada bunyi [t], yang alveolar dalam bahasa Inggris tetapi dental dalam bahasa Minang.

Kata kunci: *konsonan plosif, bahasa Inggris, bahasa Minang*

INTRODUCTION

It has been accepted that English has become a global language that plays an important role in this globalization era. It is used as a medium of communication in many different countries in all over the world.

Quirk in Graddol et all (1996: 41) says, “English is a language – *the* language – on which the sun does not set, whose users never sleep”. It can be seen that English is used by

at least 750 million people, and barely half of those speak it as a mother tongue. Some estimates have put that figure closer to 1 billion. Whatever the total, English at the end of the twentieth century is more widely scattered, more widely spoken and written than any other language has ever been. It has become a language of the planet.

Meanwhile, Indonesia consists of 17,000 islands of archipelago inhabited by people of different cultures and languages, known as a multilingual country. It is marked by the existence hundreds of local languages that spread all over the archipelago. Each local language is used by the native speaker in different number, and it has different system. Minangnese, one of the local languages that is found in Indonesia, grows and develops in the West Sumatera that range lies from North West to South East. This province border on the province of North Sumatera in the West, province of Jambi and Bengkulu in the East, province of Riau in the North, and Indonesian ocean in the South.

Minangnese area exceed farther than this province limits. It is caused by a half of the Minangkabau population live outside their homeland. Isman (1978) says that the totals 42,297 square kilometers. Whereas, Nababan (1986) states that the native speakers of Minangnese is about 2,42% from the total of Indonesian inhabitant or 3.551.000 persons. Formerly, Nababan (1979) says that Minangnese is not only used in the West Sumatera, but also in Malaysia, especially Negeri Sembilan. Then, Lenggang in Nio (1984) states, "Minangnese is also used in Mukomuko areas (the province of Bengkulu), Natal and Barus (the province of North Sumatera), Tapak Tuan (the province of Aceh), Bangkinang and Taluk (the province of Riau).

As a local language, Minangnese, is used as the first language by the native speakers in formal and informal intra-ethnic speaking to express their thoughts and feelings. In addition, it performs some social functions, as: Supporting the national language, Indonesian; Supporting the development of local culture that can be seen in its uses in literary works, arts, and traditional ritual; and as a medium of communication at the early primary school to accelerate the pupils understanding of Indonesian and other lessons.

In the light of the Minangnese speakers number and its function, it is important to investigate the learning problems of English by Minangnese speakers. As Lado (1957) says that the comparison between two languages can predict the learning problems. Besides, the result of this research is significant for the maintenance and cultivation of the local language and it is an important part of the national culture.

LITERATURE REVIEW

As a human communication through spoken language, speech sounds are made with the pulmonary airstream (that is, air exhaled from the lungs) as it passes between the vocal cords and out through the vocal tract. Jones (1972: 96) says "every speech sound belongs to one or other of the two main classes known as vowels and consonants. Similarly, Sethi and Dhamija states, ' speech sounds of all languages are classified, first and foremost, into vowels and consonants'.

2.1 Consonant

According to Grollier New Webster's Dictionary (1992: 77), consonant is a unit of speech sound (p,t, etc) which differs from a vowel in that there is some obstruction of the breath in its production". (s.v. "consonant"). Moreover, The New Encyclopedia Britannica (1995: 557) states, "consonant, any speech sound, is characterized by an articulation with a closure or narrowing of the vocal tract such that a complete or partial blockage of the flow of air is produced" (s.v. "consonant").

In phonetics, consonants are usually classified according to the place of articulation, the manner of articulation, the state of the vocal cords, obstruents and sonorants, and aspirated and unaspirated.

1. The Place of Articulation

The chief point out of articulation, with special reference to the sounds of English are: bilabial, labio-dental, dental, alveolar, post-alveolar, palatal, velar, uvular, and glottal.

Those are defined as follow:

- a. Bilabial; Articulated by bringing both lips together e.g: [b, p, m,w] as in: big, symbol, robe, meal, summer, game, play, appear, lip, wet, twin, quick.
- b. Labio-dental; Articulated by touching the lower lip to the upper teeth, e.g. [f, v] as in: fine, affair, laugh, vine, ever, give.
- c. Dental; Articulated by the tip of the tongue is inserted between the upper and lower teeth, e.g. [θ, ð] as in: thin, method, breath, they, leather, with.
- d. Alveolar; Articulated by the tongue against the gum behind the upper front teeth, e.g. [d, l, n, s, t, z] as in: take, letter, late, double, sudden, bid, like, close, small, now, funny, sign, sample, concert, ice, zone, easy, rose.
- e. Post-alveolar; Articulated by the tip of the tongue with the rear part of the alveolar ridge, e.g. [r] as in: real, very, far.
- f. Retroflex; Articulated by the tip of the tongue is curled back to the part of the hard palate immediately behind the alveolar ridge, e.g. [ɻ] as in: here, there.
- g. Palato- alveolar; Articulated by the blade of the tongue against the teeth ridge by raising the front of the tongue towards the hard palate at the same time e.g.[ʃ, ʒ, tʃ, dʒ] as in: shout, mesher, finish, vision, measure, prestige, chain, watch, much, joke, soldier, age.
- h. Palatal; Articulated by the front of the tongue against the hard palate, e.g. [j] as in: yes, beauty.
- i. Velar; Articulated by raising the black of the tongue to the soft palate or velum, e.g. [k, g, ŋ] as in : car, income, duck, go, eager, dog.
- j. Uvular; Articulated by the back of the tongue with the uvula, e.g. [ʁ, R]
- k. Glottal; produced by narrowing causing friction but not vibration between the vocal folds, e.g. [h] as in: who, whose.

2. The Manner of Articulation

The obstruction made by the organs may be total, intermittent, partial, and narrowing sufficient to cause friction. The chief types of manner of articulation, which based on degrees of closure, are as follows:

a. Complete Closure

1. Plosive; A complete closure in the vocal tract is behind which the air pressure builds up and can be released explosively. There are seven character plosive consonants, they are: [b, p, d, t, g, k, ?]
2. Affricate; A complete closure at the same point in the mouth, behind which the air-pressure builds up; the separation of the organs is slow compared with that of a plosive, so that friction is a characteristic second element of the sounds, e.g. [tʃ, dʒ]
3. Nasal; A complete closure at some point in the mouth, but the soft palate being lowered, the air escapes through the nose, e.g. [m, n, ŋ].

b. Partial Closure

1. Lateral; A partial (but firm) closure is made by the tip of the tongue with the air stream being allowed to escape on one or both besides of the contact, e.g. [l].
2. Narrowing

3. Fricative; Two organs approximate to such an extent that the air stream passes between them with friction, e.g. [f, v, θ, ð, s, z, ʃ, ʒ, h, r].
4. Approximant.
5. Semi-vowels; are usually in the consonantal category on functional grounds, but from the point of view of phonetic description they are more properly treated as vowel glides, e.g. [w, j]

3. The State of the Vocal Cords.

According to Fromkin and Rodman (1998: 35), the state of the vocal cords during speech thus permits us to classify speech sounds into two large classes, namely voiced and voiceless.

- Voiced sound is produced when the vocal cords are together, the air stream forces its way through and causes them to vibrate, e.g. [b, d, g, v, ð, z, n, m, dʒ].
- Voiceless sound is produced when the vocal cords are apart, the air stream is not obstructed at the glottis, and it passes freely into the supraglottal cavities, e.g. [p, t, k, f, θ, s, ʃ, tʃ].

4. Obstruents and Sonorants

According to their noise component, sounds can be classified into two categories, namely obstruents and sonorants.

- Obstruents are those in whose production the construction impeding the air flow through the vocal tract is sufficient to cause noise, e.g. plosive, fricatives, and affricates.
- Sonorants are those voiced sounds in which there is not noise component, e.g. nasals, approximants, and vowels.

5. Aspirated and Unaspirated

Based on the timing of the vocal cord closure, voiceless sounds are divided into two classes: namely; aspirated and unaspirated sound.

- Aspirated sounds occurs when [p,t,k] voiceless sound is pronounced with considerable force, and a puff of breath (aspiration), producing a voiceless fricative, symbolized by using a superscripts [^h]: [p^h], [t^h], [k^h]. Aspiration occurs in syllable-initial position and it most apparent initially in accented syllables, e.g. pat [p^hæt], top [t^hɒp], kid [k^hid], appear [ə^hp^hI ə(r)].
- Unaspirated sounds occurs when voiceless sound is pronounced with no considerable force, and there is no a puff of breath. It is unaspirated when [p, t, k] is preceded by ‘s’ as in spy [spaɪ], stay [steɪ], and skin [skɪn].

The English Consonants.

There are 24 consonants of English. It can be described in terms of; voiced or voiceless, the place of articulation and the manner of articulation. They are : [p, b, t, d, k, g, ʃ, dʒ, m, n, ŋ, l, f, v, θ, ð, s, z, ʃ, ʒ, h, r, w, and j]

According to the manner of articulation, English consonants can be classified into the following:

Plosive (6)	[b, p, d, t, g, k]
Affricates (2)	[tʃ, dʒ]
Nasals (3)	[m, n, ŋ]
Laterals (1)	[l]
Fricatives (9)	[f, v, θ, ð, s, z, ʃ, ʒ, h]
Frictionless continuant (1)	[r]

Semi-vowels (2) [j, w]

According to the place of articulation, English consonants can be classified into the following:

Bilabials (3) [b, p, m]
 Labio-dentals (2) [f, v]
 Dentals (2) [θ, ð]
 Alveolars (6) [d, l, n, s, t, z]
 Post-alveolar (1) [r]
 Palato-alveolars (4) [ʃ, ʒ, ʒ, ʒ]
 Palatal (1) [j]
 Velars (3) [k, g, ŋ]
 Glottal (1) [h]
 Labio-velar (1) [w]

Nine consonants are voiceless: [p, t, k, ʃ, f, θ, s, ʃ, h], and the remaining 15 are voiced: [b, d, g, ʒ, m, n, ŋ, l, v, ð, z, ʒ, r, w, j].

Minangnese Consonants

There are 20 consonants of Minangnese. It can be described in terms of (1) the place of articulations, (2) the manner of articulations, and (3) the state of vocal cords. They are: [b, p, d, t, c, j, g, k, ?, s, z, h, m, n, ŋ, r, l, w, and y]. According to the manner of articulation, Minangnese consonants are classified into the following:

Plosives (9) [b, p, d, t, c, j, g, k, ?]
 Fricatives (3) [h, s, z]
 Nasals (4) [[m, n, ŋ, ŋ]
 Vibrate (1) [r]
 Lateral (1) [l]
 Semi-vowels (2) [w, y]

According to the place of articulation, Minangnese are classified into the following:

Bilabials (4) [b, m, p, w]
 Dentals (3) [d, n, t]
 Alveolars (2) [s, z]
 Lateral (1) [l]
 Palatals (3) [c, j, ŋ]
 Velars (4) [g, k, ŋ, y]
 Vibrate (1) [r]
 Glottal (2) [?, h]

Seven consonants are voiceless: [p, t, c, k, ?, s, h], and the remaining 13 are voiced: [b, d, j, g, m, n, ŋ, ŋ, r, l, w, y]. English and Minangnese consonants are summarized in the Table 1.

Table 1.
The English and Minangnese Consonants

Place of Articulation	Labi		Den	Alve	Post-	Palat	Palat	Velar	Glott	Labi
	Bila	o-								
Manner of Articulation	bial	Dent	Tal	olar	lar	Alve	al	al	al	Velar
	E	M	E	M	E	M	E	M	E	M

Plosive	(vl)	p	p		T	t		c	k	k	
	(vd)	b	b			d	d		g	g	?
Affric	(vl)								tʃ		
	(vd)								dʒ		
Nasal	(vl)										
	(vd)					n	n		ŋ	ŋ	
Lateral	(vl)										
	(vd)	m	m			l	l				
Fricative	(vl)		F	θ	s	s		ʃ			h h
	(vd)		V	ð	z	z					
Vibrate							r				
Frictionles Continuant	(vl)										
	(vd)							r			
Semi-vowel	(vl)										
	(vd)	w						j	j		w

E : English
M : Minangnese

2.1.1 Plosive Consonant

Roach (2002: 32) describes that a plosive is a consonant articulation with the following characteristics:

- One articulator is moved against another, or two articulators are moved against each other, so as to form a stricture that allows no air to escape from the vocal tract. The stricture is, then, total.
- After this stricture has been formed and air has been compressed behind it, it is released;; that is, air is allowed to escape.
- If the air behind the stricture is still under pressure when the plosive is released, it is probable that the escape of air will produce noise loud enough to be heard. This noise is called plosion.
- There may be voicing during part or all of the plosive articulation.

The production of a plosive is completed in three stages

- a. The closing stage, during which the articulatory organs come together and make a firm contact with each other.
- b. The hold or compression stage, during which as a result of lung action, the air behind the closure is compressed.
- c. The release or explosive stage, during which the articulatory organs part rapidly, resulting in the escape of the compressed air with explosion.

2.1.1.1 The English Plosive Consonants.

English has six plosive consonants. They are:

- Bilabial [b, p]
- Alveolar [d, t]
- Velar [g, k]

[p, t, k] are voiceless, and [b, d, g] are voiced.

1. English Voiced Bilabial Plosive Consonant Sound [b]

The sound [b] is articulated by raising the soft palate to shut off the passage of air, the obstacle to the air stream is formed by the closure of the lips. The lung air is

compressed behind this closure, during which stage the vocal cords are kept wide apart. When the lip closure is released, the compressed air escapes with force.

2. *English Voiceless Bilabial Plosive Consonant Sound [p]*

The sound [p] is articulated in the same way as the English voiceless bilabial consonant [b], except for voicing. While the vocal cords vibrate for /b/, they do not for /p/. The lung air is compressed behind this closure, during which stage the vocal cords are kept wide apart. When the lip closure is released, the compressed air escapes with force. This sound is aspirated when it occurs initially in an accented syllable as in pot, pull. But, this is unaspirated when it occurs in unaccented syllable as in prevent.

3. *English Voiced Alveolar Plosive Consonant Sound [d]*

The sound [d] is articulated by raising the soft palate to shut off the nasal passage of air, the obstacle to the air stream is formed by a closure between a) the tip of the tongue and the teeth ridge, and b) the rims of the tongue and the side teeth. The vocal cords do vibrate.

4. *English Voiceless Alveolar Consonant Sound [t]*

The sound [t] is articulated in the same way as [d] except for voicing. The vocal cords do not vibrate. The lung air is compressed behind the closure, during which stage the vocal cords are wide apart. When the closure is released, the compressed air escapes with force. This sound is aspirated when it occurs initially in an accented syllable as in tin, obtain. But, this sound is unaspirated when it a) occurs in unaccented syllables as in today, b) preceded by /s/ as in stray, c) occurs medially in a syllable as in hats, bits.

5. *English Voiced Velar Plosive Consonant Sound [g]*

In the articulation of [g], the obstacle to the air stream is formed by a firm contact of the back of the tongue against the soft palate, which itself is raised in order to shut off the nasal passage of air.

6. *English Voiceless Velar Plosive Consonant Sound [k]*

The sound [k] is articulated in the same way as [g], but, whereas for /g/ the vocal cords vibrate, for [k] they do not. The lung air is compressed behind the closure, during which stage the vocal cords are wide apart. When the closure is released, the compressed air escapes with force.

2.1.1.2 *Minangnese Plosive Consonants.*

There are nine Minangnese plosive consonants, they are:

1. Bilabial : [b, p]
2. Dental : [t]
3. Alveolar : [d]
4. Palatal : [c, j]
5. Velar : [g, k]
6. Glottal : [ʔ]

1. *Minangnese Voiced Bilabial Plosive Consonant Sound [b]*

The soft palate is raised to shut off the passage of air, the obstacle to the air stream is formed by the closure of the lips.

2. *Minangnese Voiceless Bilabial Plosive Consonant Sound [p]*
 The sound [p] is articulated in the same way as the English voiceless bilabial consonant [b], except for voicing. While the vocal cords vibrate for /b/, they do not for /p/. The lung air is compressed behind this closure, during which stage the vocal cords are kept wide apart. When the lip closure is released, the compressed air escapes with force.
3. *Minangnese Voiced Alveolar Plosive Consonant Sound [d]*
 The soft palate is raised to shut off the nasal passage of air, the obstacle to the air stream is formed by a closure between the tip of the tongue and the teeth ridge, and b) the rims of the tongue and the side teeth.
4. *Minangnese Voiceless Dental Plosive Consonant Sound [t]*
 This sound is articulated in the same way as [d], the soft palate is raised to shut off the nasal passage of air, the obstacle to the air stream is formed by a closure between the tip of the tongue and the teeth ridge, and b) the rims of the tongue and the side teeth.
5. *Minangnese Voiceless Palatal Plosive Consonant Sound [c]*
 The front of the tongue articulates with the hard palate to obstruct the air from the lungs, and when the closure is released, the compressed air escapes with force.
6. *Minangnese Voiced Palatal Plosive Consonant Sound [j]*
 This sound is articulated in the same way as [c] sound except for voicing. While the vocal cords do not vibrate for [c], they do for [j].
7. *Minangnese Voiced Velar Plosive Consonant Sound [g]*
 The obstacle to the air stream is formed by a firm contact of the back of the tongue against the soft palate, which itself raised in order to shut off the nasal passage of air.
8. *Minangnese Voiceless Velar Plosive Consonant Sound [k]*
 This sound is articulated in the same way as [g], The obstacle to the air stream is formed by a firm contact of the back of the tongue against the soft palate, which itself raised in order to shut off the nasal passage of air.
9. *Minangnese Voiceless Glottal Plosive Consonant Sound [ʔ]*
 This sound is articulated by closing the glottis completely by bringing the vocal cords into contact. The air is compressed by pressure from the lung, and then the glottis is opened, so that the air escapes. It is neither breathed or voiced. This sound is often occurs in final positions, while it is almost inaudible in initial and medial position.

English and Minangnese plosive consonants are summarized in the following table:

Table 2.
The English and Minang Plosive Consonants Distribution

Place of Articulation	The State of Vocal Cords		Plosive Consonants					
	Voiced	Voiceless	English			Minang		
			Initial	Medial	Final	Initial	Medial	Final
Bilabial [b]	+	-	+	+	+	+	+	-
[p]	-	+	+	+	+	+	+	-
Dental [t]	-	+	-	-	-	+	+	-
Alveolar [d]	+	-	+	+	+	+	+	-
[t]	-	+	+	+	+	-	-	-
Palatal [c]	-	+	-	-	-	+	+	-
Velar [g]	+	-	+	+	+	+	+	-
[k]	-	+	+	+	+	+	+	-
Glottal [ʔ]	-	-	-	-	-	+	+	+

METHODOLOGY

This research was conducted by using descriptive qualitative research. It involves the description, recording, analysis, and interpretation of conditions that exist. The description of what is can be conducted by comparing and contrasting. By comparing different languages, it would be possible to discover and show the difference between languages. Thus, the two languages to be compared were English and Minangnese in their plosive consonants. The data were taken by using documentary and recording technique. Documentary technique is used to collect, study and analyze the references related to the study. Recording technique is used to record the data and find out the way of the native speakers pronounces plosive consonants obviously.

The population of this research was the native speakers of English and Minangnese. The sample of English was the three participants whose age between 20 – 60 years old. They are English native speakers originally born and grew up in England, North America and Australia. The sample of Minangnese was the three participants whose age between 20 – 60 years old, originally born and grew up in Bukittinggi, Padang and Pasaman. After collecting the data, it was analyzed to find out the similarities and differences by doing the steps: a) reading the references; b) transcribing the data; c) describing the forms; d) selecting the positions of plosive consonants (in initial, medial, and final) both in English and Minangnese; e) distributing the plosive consonants; f) contrasting the plosive consonants in English and Minangnese; and g) predicting the difficulties of Minang Learners in Learning English.

FINDING AND DISCUSSION

A. The Description of English and Minangnese Plosive Consonants.

The description of English and Minangnese Plosive Consonants can be seen in table 3.

Table 3
Description of English and Minangnese Plosive Consonants.

Plosive Consonants	Position	English	Minangnese
[b]	Initial	Bag [bæg]	Baitu [ba?itu]
		Behind [bi'haɪnd]	Bak [ba?]
		Boy [bɔɪ]	Buruang [buruaŋ]
	Medial	about [əbaʊt]	Ribut [ribui?]
		Harbour [ˈhɑ:bə(r)]	Tumbuhan [tumbuhan]
		Remember [rɪ'membə(r)]	Ombak [omba?]
	Final	Job [dʒɒb]	-
		Herb [hɜ:b]	-
		Absorb [əb'sɔ:b]	-
[p]	Initial	Page [peɪdʒ]	Pai [paɪ]
		People [pi:pl]	Padiah [padiah]
		Plant [plɑ:nt]	Pahit [pahi?]
	Medial	Appear [ə'piə(r)]	Ampek [ampe?]
		Explain [ɪk'spleɪn]	Apo [ʔapo]
		Newspaper [nju:sp'eɪpər]	Sepakat [sepakay?]
	Final	Sleep [sli:p]	-
		Top [tʰɒp]	-
		Up [ʌp]	-
[t]	Initial	Take [teɪk]	Tabang [tabaŋ]
		Track [træk]	Tantaro [tantaro]
		Two [tu:]	Tuo [tuwo]
	Medial	History ['hɪstri]	Hati [ʔati]
		Meantime ['mi:ntaim]	Janti [janti]
		Outside [aʊt'saɪd]	Nyato [ɲato]
	Final	Great [greɪt]	-
		Honest ['ɒnɪst]	-
		Insult [ɪnsʌlt]	-
[d]	Initial	Dark [da:(r)k]	Dek [de?]
		Did [dɪd]	Dayo
		Down {daʊn}	Dek
	Medial	Children [tʃɪldrən]	Ado [ʔado]
		Consider [kən'sɪdə(r)]	Adat [adai?]

		Wedding [wedɪŋ]	Pandai [pandai]
	Final	Avoid [ə'vɔɪd] Find [faɪnd] Hide [haɪd]	- - -
[k]	Initial	Keep [k ^h i:p] Kid [k ^h ɪd] Kind [k ^h aɪnd]	Kanai [kanai] Ketek [kete?] Kudo [kudo]
	Medial	Necklace [neklɪs] Unmistakable [ʌnmɪsteɪkəbl]	Pusako [pusakɔ] Luko [luko] Muko [muko]
	Final	Work [wɜ:k] Back [bæk] Clock [klɒk]	- - -
[g]	Initial	Give [gɪv] Glance [glɑ:ns] Grass [grɑ:s]	Gadang [gadaŋ] Gadiah [gadih] Geleang [geleaŋ]
	Medial	Again [ə'geɪn] Together [təgeðə(r)] Undergo [ʌndərgəu]	Agak [ʔaga?] Bajak [baja?] Talunjuak [talunjua?]
	Final	Bag [bæg] Big [bɪg]	- -
[c]	Initial	- - -	Cahaya [ca?ayo] Camin [camin] Cilako [cilako]
	Medial	- - -	Runciang [runciaŋ] Hancur [ʔancau] Kacang [kacaŋ]
	Final	- - -	- - -
[j]	Initial	- - -	Jawi [jawi] Jauh [jauh] Jan [jan]
	Medial	- - -	Unjuak [unjua?] Bajak [baja?] Talunjuk [talunjuk?]

	Final	-	-
		-	-
		-	-
[ʔ]	Initial	-	Anyuik [ʔañoIʔ] Elok [ʔeloʔ] Ado [ʔado]
	Medial	-	Cahayo [caʔayo] Ba'a [baʔa]
	Final	-	Harap [haroʔ] Indak [indaʔ] Pahit [pahiʔ]

B. The Selection

The Selection of English and Minangnese Plosive Consonants can be seen in the following table.

Table 4
Selection of English and Minangnese Plosive Consonants

	English	Minangnese
/ b /	[b] can be found in the initial, medial, and medial position, as in body, table, and job.	[b] can be found in the initial and medial position, as in: banak and tumbuah. [p] can be found in the final position as in: /rabab/:[rabap], /asab/:[asap]
/ p /	[p] can be found in the initial, medial, and final position, as in police, report, and ship.	[p] can be found in the initial and medial position, as in: paneh and ampek. [yʔ] can be found in the final position, as in /tutup/:[tutuyʔ] [oʔ] can be found in the final position, as in: /suap/: [suoʔ]
/ d /	[d] can be found in the initial, medial, and final position, as in: dark, other, and glad.	[d] can be found in the initial and medial position, as in: dayo and padiah.
/ t /	[t] can be found in the initial, medial, and final position, as in: time, party, and plant.	[t] can be found in the initial and medial position, as in: tabang and nyato. [iʔ] can be found in the final position, as in: /adat/: [adaiʔ] [ʔ] can be found in the final position, as in: /dapat/: [dapʔ]
/ c /		[c] can be found in the initial and medial position, as in: camin and runcing.
/ j /		[j] can be found in the initial and medial position, as in: jawi and unjuk.

/ g /	[g] can be found in the initial, medial, and final position, as in: garden, again, and bag.	[g] can be found in the initial and medial position, as in: gadang and limbago
/ k /	[k] can be found in the initial, medial, and final position, as in: kind, necklace, and ask.	[k] can be found in the initial and medial position, as in: kanai and pusako
		[?] can be found in the final position, as in: /elok/ [ʔeloʔ]

C. The Contrast of English and Minangnese Plosive Consonants

1. The Similarities

- a. Both English and Minangnese have the same place of articulation at bilabial, alveolar, and velar.
- b. Both English and Minangnese have voiced plosive consonant sounds.
- c. Both English and Minangnese have voiceless plosive consonant sounds.
- d. Both English and Minangnese plosive consonants can be found in the initial and medial position.

2. The Differences

- a. English plosive consonants consist of six characters such as: /b, p, d, t, g, and k/; while Minangnese plosive consonants consist of nine characters such as: /b, p, d, t, c, j, g, and k/
- b. All of English plosive consonant sounds can be found in the final position; While some of Minang plosive consonant sounds cannot be found in the final position.
- c. English /b/ phoneme has one allophone [b]; While Minangnese /b/ phoneme has two allophones [b] and [p].
- d. English /p/ phoneme has one allophone [p]; while Minang /p/ phoneme has three allophone [p], [yʔ], and [oʔ].
- e. English /t/ phoneme has one allophone [t]; while Minang /t/ has three allophones [t], [iʔ], and [ʒʔ].
- f. English /k/ phoneme has one allophone [k] While Minang /k/ has three allophones [k], and [ʔ].
- g. English /p,t,k/ in final position is constantly pronounced [p,t,k]; while Minang /p,t,k/ in final position is pronounced glottal [ʔ]
- h. There are aspirations in English plosive consonants; while there is no aspiration in Minangnese plosive consonants.

The similarities will lead to facilitation and differences will cause interferences in the context of English language learning situation.

D. The Prediction

To predict the degree of difficulties between the two languages being compared, Clifford Prator's six categories were used, they are:

1. Level 0 : Transfer

There is no difference of contrast presented between the two languages. The learner can simply transfer the sound [d], [g], and [k] in initial and medial position.

2. Level 1 : Coalescence

Two or more items in Minangnese become coalesced into one item in English.

	<i>Minangnese</i>	<i>English</i>
a. /b/	[b], [p]	[b]
b. /p/	[p], [iʔ], [oʔ]	[p]

- | | | |
|--------|-----------|-----|
| c. /t/ | [t], [iʔ] | [t] |
| d. /k/ | [k], [ʔ] | [k] |
3. Level 2 : Under differentiation
An item in Minangnese is absent in English. Minangnese learners of English must forget the sound [ʔ].
 4. Level 3 : Reinterpretation
An item that exists in Minangnese is given a new shape in producing the similar item in English. Minangnese speaker who learns to produce the English alveolar /t/ must interpret the Minangnese dental /t/ in order that he may produce the English /t/ more natural in the ear of English speakers.
 5. Level 4 : Over differentiation
A new item in Minangnese must be learned. In learning English, Minangnese learners of English must learn how to produce: Aspiration in /p, t, k/ sound, /d/ and /g/ sound in final position.
 6. Level 5 : Split
It is the counterpart of Coalescent. There is no item in Minangnese that becomes two or more item in English.

CONCLUSION

Having analyzed the data, some conclusions can be drawn deals with the similarities and differences between English and Minangnese as follows:

1. Similarities
 - a. English and Minangnese have the same place of articulation at bilabial and velar.
 - b. English and Minangnese have voiced plosive consonant sounds.
 - c. English and Minangnese have voiceless consonant sounds.
 - d. Both English and Minangnese [b, p, d, t, g] sounds can be found in initial and medial positions.
2. Differences
 - a. English plosive consonants consist of six characters such as: / b, p, d, t, g, and k/ ; while Minangnese has nine characters such as: / b, p, d, t, c, j, g, g, k, and ? /.
 - b. English /b/, /p/, /k/, and /t/ phonemes have one allophone [b, p, k, and t]; while Minang /b, p, k, and t/ phonemes have two or three allophones. They are: 1. /b/ [b], [p] 2. /p/ [p], [iʔ], [oʔ] 3. /t/ [t], [iʔ] 4. /k/ [k], [ʔ]
 - c. English [t] sound is voiceless alveolar; while Minangnese [t] sound is voiceless dental.
 - d. English voiceless affricate /c/ is transcribed [t]; while Minangnese voiceless palatal /c/ is transcribed [c].
 - e. English /k/ phoneme in final position is pronounced [k], while Minang /k/ phoneme in final position is pronounced glottal [ʔ].
 - f. There are aspirations in English plosive consonants; while there is no aspiration in Minangnese plosive consonants.

REFERENCES

- [1] "Consonant". 1992. Grolier New Webster's Dictionary. Vol I. Danbury: Grolier.
- [2] "Consonant". 1995. The New Encyclopedia Britannica. Vol 3. 15th Ed. Chicago
- [3] Department of Linguistics. 1998. Language Files. 7th Ed. Columbus: Ohio State University.

-
- [4] Fromkin, V. & Rodman, R. 1998. *An Introduction to Language*. Chicago: Holt Rinehart and Winston.
- [5] Gimson, A. C. 1994. *Gimson's Pronunciation of English*. 5th ed. Revised by A. Cruttenden. London: Edward Arnold.
- [6] Graddol, D. Leith, D. and Swann, J. 1996. *ENGLISH: History, Diversity, and Change*. London: The Open University.
- [7] Hakimy, I. 1996. *1000 Pepatah-petitih Mamang Bridal Pantun Gurindam*. Bandung: Remaja Rosdakarya.
- [8] James, C. 1980. *Contrastive Analysis*. London: Longman.
- [9] Jones, D. 1972. *An outline of English Phonetics*. Cambridge: Cambridge University Press.
- [10] Kreidler, C.W. 1997. *Describing Spoken English: An Introduction*. London: Routledge.
- [11] Ladefoged, P. 2001. *A course in Phonetic*. New York: Hartcourt Brace Jovanovich.
- [12] Ladefoged, P. 2001. *Vowels and Consonants: An Introduction to the Sounds of Languages*. Oxford: Blackwell.
- [13] Naibaho, J. 2002. *Contrastive and Error Analyses: A course Material*. (Unimed, Medan: Unpublished).
- [14] Pike, K.L. 1971. *Phonetics: A Critical Analysis of Phonetic Theory and Technic for the Practical Description of Sounds*. Michigan: The University of Michigan.
- [15] Roach, P. 2002. *English Phonetics and Phonology: A Practical Course*. 3rd Ed. Cambridge: Cambridge University Press.
- [16] Rizal, Y. 1995. *Pribahasa Minangkabau Indonesia*. Bandung: Pustaka Setia.
- [17] Sahulata, D. 1988. *An Introduction to Sounds System of English*. Jakarta: Departemen Pendidikan dan Kebudayaan.
- [18] Sethi, J. & Dhamija, P.V. 2002. *A Course in Phonetics and Spoken English*. 2nd Ed. New Delhi: Prentice – Hall of India.