

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter discusses the theoretical aspect of the study on English pronunciation by Madurese students. The discussion includes description of the English and Madurese sound inventory.

2.1 English Sounds

Like other languages, English sounds consist of two main classes: consonants and vowels. Each class will be discussed in the following subsections.

2.1.1 English Consonant Sounds

Consonant is a speech sound produced by completely or partly stopping the air being breathed out through the mouth. Peter Mac Carthy (1978:102, quoted in Alfriani Nandara, 2009) states consonant sound is a sound produced by articulation involving some degree of constriction of the mouth passage. The same idea is also expressed in Oxford Advanced Learner's Dictionary (p. 246). This includes constriction sufficient to produce audible friction at the point of narrowing, also includes complete blocking of the passage. O'Connor (1980:24-26) mentions there are 24 consonants in English, namely: [p], [b], [t], [d], [k], [g], [s], [z], [m], [n], [f], [v], [l], [r], [h], [w], [j], [ŋ], [ʒ], [θ], [ð], [tʃ], [ʃ], and [dʒ]. Soenjono Dardjowidjojo (2009:3) In order for a person to produce a sound, he needs four fundamental elements: (1) the lungs, (2) the vocal cord, (3) the resonators, and (4) the articulators.

2.1.1.1 English Consonants Classification Based on the Position of Vocal Cords

The sounds are produced in the larynx by involving a set of muscles called the vocal cords. According to Michael Dobrovolsky and Francis Katamba (1997:23) consonantal sounds, which may be voiced or voiceless, are made with a narrow or complete closure in the vocal tract. Voiceless is a sound produced when the vocal cords do not vibrate (actually in speed they always vibrate, but here the vibration is little). When the vocal cords are brought close together, but not tightly closed, air passing between them causes them to vibrate, producing sounds that are called voiced. Based on the description above, English consonants can be divided into two groups, those are:

1. Voiceless: [p], [t], [k], [s], [f], [h], [θ], [tʃ], and [ʃ].
2. Voiced: [b], [d], [g], [z], [m], [n], [v], [l], [r], [w], [j], [ŋ], [ʒ], [ð], and [dʒ].

2.1.1.2 English Consonants Classification based on the point of Articulation

Each point at which air-stream can be modified to produce a different sound is called a place of articulation. Place of articulation are found at the lips, within the oral cavity, in the pharynx, and at the glottis. Based on the place of articulation the consonants can be divided into 9 groups (Daniel Jones, 1972: 45-46) Those are:

- a. Bilabial: articulated by the two lips. Example: [p], [b], [w], and [m].
- b. Labio-dental: articulated by the lower lip against the upper teeth.
Example: [f] and [v].

- c. Dental: articulated by the tip of the tongue against the upper teeth.
Example: [θ] and [ð].
- d. Alveolar: articulated by the tip or blade of the tongue against teeth-ridge. Example: [t], [d], [l], [s], [z], and [n].
- e. Retroflex: those in the formation of which the tip of the tongue is curled upwards towards the hard palate. Example: [r]
- f. Alveo-palatal: articulated by the blade of the tongue against the teeth-ridge with raising of the main body of the tongue towards the palate.
Examples: [tʃ], [dʒ], [ʃ], and [ʒ].
- g. Palatal: articulated by the ‘front’ of the tongue against hard palate.
Example: [j]
- h. Velar: articulated by the ‘back’ of the tongue against the central and forward part of the soft palate. Example: [k] and [g].
- i. Glottal: articulated in the glottis. Example: [h] and glottal stop [ʔ].

2.1.1.3 English consonants Classification Based on the Manner of Articulation

Manners of Articulation are various configurations of the lips, tongue, velar (velum), and glottis positioned in different ways to produce different sound types. Based on the Manners the articulation, the consonant can be divided into 6 groups, those are plosive/stop, affricative, nasal, liquid, fricative, and semi-vowels.

- a. Plosive / Stop: are made with a complete and momentary closure of airflow through the vocal track, thus preventing the escape of air via the mouth. Example: [p], [b], [t], [d], [k], [g], [m], [n], [ŋ], and [ʔ].
- b. Fricative: are consonants produced with continuous airflow through the mouth. Example: [f], [v], [θ], [ð], [s], [z], [h], [ʃ], and [ʒ].
- c. Affricates: when a stop articulation is released, the tongue moves rapidly away from the place of articulation. Some non-continuant consonants show a slow release of the closure. Example: [tʃ] and [dʒ].
- d. Liquid:
 - Partial closure of speech organs and air flows over sides of tongue. Example: [l]
 - Near closure of speech organs and the air flows down middle of tongue. Example: [r]
- e. Nasal: when sounds (other than plosive and nasal consonants) are pronounced with simultaneous lowering of the soft palate, so that the air passes through the nose as well through the mouth. Example: [m], [n], and [ŋ].
- f. Semi vowel: independent vowel-glides in which the speech organs start by forming a weakly articulated close or fairly close vowel and immediately move to another sound of equal or greater prominence; the initial vowel-position is not held on for any appreciable time. Example: [w] and [j].

The above classification of English consonant sounds can be summarized in the following table:

Table 2.1 Chart of English Consonants

Manner of articulation		Point of articulation								
		Bilabial	Labio-dental	Inter-dental	Alve-olar	Retro-flex	Alveo-palatal	palatal	Velar	Glottal
Stop	vl	p			t				k	ʔ
	vd	b			d				g	
Affricative	vl						tʃ			
	vd						dʒ			
Nasal	vd	m			n				ŋ	
Liquid	vd				l	r				
Fricative	vl		f	θ	s		ʃ			h
	vd		v	ð	z		ʒ			
Semi-vowel	vd	w						j		

Note: vd is voiced and vl. voiceless

2.1.2 English Vowel Sounds

Vowels are sonorous, syllabic sounds made with the vocal tract more open than it is for consonant and glide articulation (Michael Dobrovolsky and Francis Katamba, 1996:35).

According to Soendjono Dardjowidjojo (2009:107) the vowels of English are described in completely different terms. It does not use the parameters such as points and manner of articulation, but it is used four different parameters: (1) the height of the tongue, (2) the position of the tongue, (3) the protrusion, or rounding, of the lips, and (4) the tense or lax state of the muscles.

2.1.2.1 The Position of The English Vowels

The position of English vowels can be looked from the point of view of the tongue height, those are high, mid, and low vowels, from the position of the

tongue, there are front, central, and back vowels, and from the lip rounding parameter (Soendjono Dardjowidjojo, 2009:110).

A. The Front Vowels

The English front vowels are produced by having the tongue manipulated in the front part of the mouth. When combined with the position of the tongue, they can be high front, mid front, or low front.

a. The High Front Vowels [i] and [I]

- The vowel [i:] is made by having the front part of tongue raised high without touching anything of the upper part of the mouth. The sound [i:] is longer than [I]. Example: beat [bi:t]
- The vowel [I] is when the tongue is lowered by opening the mouth a bit wider, but is still high enough, what we come up with is the sound. Example: bit [bIt]

b. The Mid Front Vowels [e] and [ɜ:]

- The vowel [e] is when the tongue is lowered further from the position of [I]. Example: mate [meIt]
- The vowel [ɜ:] is when the tongue is lowered further down from [e] and the mouth is opened wider and the lips are less spread than for [e]. Example: bet [bɛt]

c. The Low Front Vowel [æ]

The vowel [æ] is made by lowering the tongue further down from the position for the vowel [ɛ]. It means that the mouth is opened more widely and the lips are not spread. Example: apple [æpl].

B. The Back Vowels

a. The High Back Vowels [u:] and [u]

- The sound [u:] is produced in the same way as that for [i] and [I] but it raises the back part of the tongue way up without touching any part of the mouth. Example: food [fu:d]
- The sound [u] is produced by lowering the tongue a bit from [u] position. Example: look [luk]

b. The Mid Back Vowels [o] and [ɔ]

- The vowel [o] is produced by putting the back of the tongue in back position and lower than [u]. Example: low [lou]
- The vowel [ɔ] is produced by lowering the tongue below the [o] sound.

c. The Low Back Vowels [ɑ]

The sound [ɑ] is produced by having the tongue at the back of the mouth and in low position, lower than that for [ɔ]. The mouth is also more open and the lips are not as much protruded as for the other back vowels. Example: far [fɑ:]

C. The Mid Central Vowel [ə]

The vowel [ə] is made by having the central part of the tongue placed in the middle of the mouth cavity. The lips are not protruded and the mouth is half-open. The nasal cavity is closed.

Table 2.2 Chart of English Vowels

	Front	Central	Back	
High	i: ɪ		u: ʊ	Rounded
Mid-High	e			
Mid		ə / ɜ:		
Mid-Low			ʌ	
Low	æ		ɑ: ɒ	

2.2 Madurese Sounds

2.2.1 Madurese Consonant Sounds

Consonant is a speech sound made by partly stopping the breath with the tongue, lips, etc (Oxford Learner's Pocket Dictionary, second edition: 85).

Madurese, according to Balai Bahasa Provinsi Jawa Timur (2012:2-4) has 28 consonants. There are [p], [b], [bh], [m], [w], [t], [th], [d], [dh], [n], [s], [l], [r], [d], [dh], [c], [j], [jh], [ń], [y], [k], [kh], [sy], [ŋ], [g], [gh], [ʔ], and [h].

The Madurese consonant sounds can be explained in the following table:

Table 2.2.1 Madurese Consonant Sounds

No.	Sound	Word	No.	Sound	Word
1.	[p]	Pereng [pérén] (plate)	15.	[dh]	Dhendeng [dhendhen] (headache)
2.	[b]	Bara [bârâ] (swollen)	16.	[c]	Cangkem [caŋkém] (chin)

3.	[bh]	Bhara [bhârâ] (lung)	17.	[j]	jadiya [jâdiyâ] (there)
4.	[m]	Mare [maré] (finished)	18.	[jh]	Jharan [jhârân] (horse)
5.	[w]	Wajib [wâjib] (obligatory)	19.	[ń]	Nyaman [nyaman] (good)
6.	[t]	Tekos [tékos] (mouse)	20.	[y]	Yaken [yakén] (believe)
7.	[t ^h]	Thokthok [thokthok] (knck)	21.	[k]	Korang [koraŋ] (less)
8.	[d]	dumeng [dumeŋ] (fool)	22.	[k ^h]	Khoso' [khoso?] (khusyu')
9.	[dh]	Dhara [dhârâ] (pigeon)	23.	[sy]	Syarat [syarat] (Requirement)
10.	[n]	Neser [néser] (pity)	24.	[ŋ]	Ngoda [ŋodâ] (young)
11.	[s]	Siang [Séyaŋ] (day)	25.	[g]	Gambus [gâmbus] (orchestra)
12.	[l]	Larang [laraŋ] (expensive)	26.	[gh]	Ghaghaman [ghâghâman] (weapon)
13.	[r]	rame [rammé] (noisy)	27.	[?]	Celo' [célo?] (sour)
14.	[d]	Dara [dârâ] (blood)	28.	[h]	Halal [halal] (halal)

2.2.1.1 Madurese Consonants Classification Based on the Position of Vocal Cords

The sound production begins in the larynx, where a set of muscles called the vocal cords. There are two kind of consonant which are produced by vocal cords, those are voiceless and voiced. Voiceless is a sound produced when the vocal cords do not vibrate (actually in speed they always vibrate, but here the vibration is little). When the vocal cords are brought close together, but not tightly closed, air passing between them causes them to vibrate, producing sounds that are called voiced. Based on the description above, Madurese consonants can be divided into two groups, those are:

1. Voiceless: [p], [t], [t^h], [c], [s], [sy], [k], [k^h], [ʔ], and [h].
2. Voiced: [b], [bh], [d], [dh], [d], [dh], [j], [jh], [g], [gh], [m], [n], [ŋ], [ŋ], [w], [l], [r], and [y].

2.2.1.2 Madurese Consonants Classification based on the point of Articulation

Each point at which air-stream can be modified to produce a different sound is called a place of articulation. Place of articulation are found at the lips, within the oral cavity, in the pharynx, and at the glottis. Based on the place of articulation the consonants can divided into 6 groups. Those are Bilabial, dental, Alveolar, Palatal, Velar, and Glottal.

- a. Bilabial: articulated by the two lips. Example: [p], [b], [bh], [m], and [w].

- b. Dental: articulated by the tip of the tongue against the upper teeth. Example: [t], [t^h], [d], [dh], [n], [s], [sy], [l], and [r].
- c. Alveolar: articulated by the tip or blade of the tongue against teeth-ridge. Example: [d] and [dh].
- d. Palatal: articulated by the ‘front’ of the tongue against hard palate. Example: [c], [j], [jh], [ń], and [y].
- e. Velar: articulated by the ‘back’ of the tongue against the central and forward part of the soft palate. Example: [k], [k^h], [ŋ], [gh], and [g].
- f. Glottal: articulated in the glottis. Example: [ʔ], and [h].

2.2.1.3 Madurese consonants Classification Based on the Manner of

Articulation

Manners of Articulation are various configurations of the lips, tongue, velar (velum), and glottis positioned in different ways to produce different sound types. Based on the Manners the articulation, the consonant can be divided into 5 groups, those are complete closure plosive/stop, nasal, liquids, fricative, glides.

- a. Plosive / Stop: are made with a complete and momentary closure of airflow through the vocal track, thus preventing the escape of air via the mouth.
 - Voiceless un-aspiration: [p], [t], [c], and [k].
 - Voiceless Aspiration:[t^h] and [k^h].
 - Voiced un-aspiration: [b], [d], [d], [j], and [g].
 - Voiced aspiration: [bh], [dh], [dh], [jh], and [gh].

- b. Fricative: are consonants produced with continuous airflow through the mouth. Example: [s] and [sy].
- c. Liquid:
- partial closure of speech organs and air flows over sides of tongue.
Example: [l]
 - near closure of speech organs and the air flows down middle of tongue.
Example: [r]
- d. Nasal: when sounds (other than plosive and nasal consonants) are pronounced with simultaneous lowering of the soft palate, so that the air passes through the nose as well through the mouth. Example: [m], [n], [ń], and [ŋ].
- e. Glides: speech organs almost close and then glide away from each other.
Example: [w], [ʔ], [h] and [y].

The above classification of Madurese consonant sounds can be summarized in the following table:

Table 2.1 Chart of Madurese Consonant

No.		Labial	Dental	Alveolar	Palatal	Velar	Glottal
1.	Stop						
	Voiceless	p	t		c	k	
	Voiceless aspirated		t ^h			k ^h	
	Voiced	b	d	d	j	g	
	Voiced Aspirated	bh	dh	dh	jh	gh	
2.	Nasal	m	n		ń	ŋ	
3.	Fricative		s, sy				
4.	Liquid		l, r				
5.	Glide	w			y		ʔ, h

2.2.2 Madurese Vowel Sounds

Balai Bahasa Provinsi Jawa Timur (2012:1-2) identifies only seven vowels of Madurese: [a], [â], [e], [é], [i], [o], and [u]. Madurese vowels have two variants of /a/ and /e/ sounds.

The /a/ vowel has two variants of sound, [a] and [â]. [a] sound is used when the consonant which is adhering is voiceless or nasal sound, whereas [â] sound is used when the consonant is voiced.

The /e/ vowel has [e] and [é] for the variant of sound. [e] and [é] are different phoneme in Madurese language, so using [e] and [é] will have different meaning.

Table 2.4 Chart of Madurese Vowels

No.	Sound	Word
1.	[a]	alos [alos] (soft)
2.	[â]	jharan [jhârân] (horse)
3.	[e]	seksek [seksek] (croup)
4.	[é]	seksek [séksék] (chops)
5.	[i]	iya [iyâ] (yes)
6.	[o]	lonca' [lonca?] (jump)
7.	[u]	labu [labu] (fall)