A CONTRASTIVE STUDY ON ENGLISH AND INDONESIAN FRICATIVES AND HOW TO OVERCOME THE PROBLEMS IN LEARNING ENGLISH FRICATIVES

A thesis
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of I K I P Sanata Dharma

A Partial Fulfilment
of the requirements for the
Sarjana Degree

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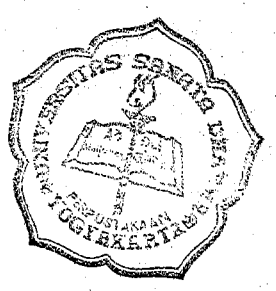

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I N T R O D U C T I O N

The writing of this thesis is guided by the propositions set forth by Lado in his book Linguistics Across Cultures:[1/]

a. In the comparison between native and foreign language lies the key to ease or difficulty in foreign language learning.

b. The most effective language teaching materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the learner's native language.

c. The teacher who has made the comparison of the foreign language with the native language of the students will know better what the real learning problems are and can better provide for teaching them.

Underlining those propositions is the general assumption that in learning a foreign language the learner tends to transfer the entire sound system of his native language to the language he is learning.[2/]

Indonesian is actually not always a native language to its speakers. For some people Indonesian is, of course, their native language, but for many others it is a second langauge after Javanese, Sundanese, Maduranese, Balinese or other regional languages in our country as we are living in a bilingual society. We learn Indonesian especially because it is our National Language, which is practically supposed to be used as the formal language for communication and the formal language used at schools, and

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1/ Lado, Robert., Linguistics Across Cultures; Ann Arbor - The University of Mechigan Press, 1957

2/ Ibid. p. 11

thus every learner of English is supposed to have mastered Indonesian before they begin to learn English as the formal foreign language for our country, 3/ which is generally introduced to them at the Junior High School. This thesis will, therefore, not present a study of comparison between English and what is called "native language" for Indonesian people, but between English and Indonesian, as in this way this study would be able to be used as a help for any Indonesian teacher of English, especially for those who teach beginners in learning English.

The comparison between the two languages may cover some areas such as the sound systems, grammatical structures, vocabulary systems and writing systems. For some reasons, however, this thesis will only deal with the study of English and Indonesian fricatives, which is only a very small part of the possible sound system comparative study of the two languages. First of all, it would be too much to deal with all aspects that can be discussed in the comparative study of the two languages, even their sound systems will have provided a very large work to do as it would include several aspects, such as the segmental phonemes, phonemes of stress, intonation, and junctures. Believing that English and Indonesian fricatives provide enough problems to comprise a complete work of a thesis, and due to some other practical purposes, I specify the material for this thesis on the study of fricatives of both English and Indonesian.

Concerning with English fricatives, we will take all of the nine fricatives that exist in English, /f,v,θ,ð,s,z,ʃ,ʒ,and h/, while with Indonesian fricatives we will take any fricative

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3/ Departemen Pendidikan dan Kebudayaan, Pusat Pembinaan dan Pengembangan Bahasa; Retmono, Pengajaran Bahasa Asing dalam Rangka Politik Bahasa Nasional; vol. 1 No. 5, 1976 p. 4

including those that are only found in loan words, so that some loan words will be used as examples to expose the phonemes concerned as well as their distributions. However, it is supposedly better to exclude the voiceless velar fricative /x/ in the comparation because the lack of the equivalent phoneme in English will practically cause no problem for Indonesian learners of English. Thus Indonesian fricatives that will be discussed in this thesis are /f, v, s, z, ʃ and h/.

Although the material for this thesis has been restricted on fricatives, an additional consideration needs to be given to the symbols that represent both English and Indonesian fricatives, because the transfer of writing habit does not only influence the learning of writing system, but it also interferes with the learning of the sound system.[4/] Due to the differences of writing symbols that represent both English and Indonesian fricatives, therefore, an Indonesian learner of English will find greater difficulties in learning English sound system. But it should be noted that the dealing with the writing symbols is not meant to give a thorough analysis for the purpose of revealing the problems in learning English writing symbols, but as additional data which would become a help to predict the problems of learning English fricatives.

As it has been implied in Lado's propositions, besides to reveal the difficulties in learning English fricatives, this thesis also aims at searching for the methods to surmount the problems as well as to provide some techniques for the teacher in teaching English fricatives.

4/ Lado, Robert, Linguistics Across Cultures; Ann Arbor-The University of Mechigan Press, 1957 p. 101

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C H A P T E R I

THE CLASSIFICATION OF ENGLISH AND INDONESIAN CONSONANTS

Every speech sound can be classified to one of the two main categories known as vowels and consonants. 5/ A vowel is defined as a voiced sound in forming which the air comes out in a continuous stream through the pharynx and mouth without obstruction and no narrowing that would cause audible friction. A consonant is a speech sound which is articulated with constriction or closure at some points in the mouth.

English and Indonesian speech sounds can be classified into vowels and consonants, but as the main concern for this thesis is a study of fricatives, it would be too much to discuss vowels as well in this chapter. In this chapter, therefore, the discussion is restricted on the general analysis of English and Indonesian consonants.

A. The Principles for Analysis

Linguists generally use some corresponding principles to classify speech sounds. In respect of the articulation of consonants, A.C.Gimson set forth six questions to answer in describing or in classifying consonants of any language. 6/ These questions are as follows:

1. Is the air stream set in motion by the lungs or by some other means? (pulmonic or non-pulmonic)
2. Is the air stream forced outward or sucked inward?

5/ Jones, Daniel. An Outline of English Phonetics, Cambridge, W.Herffer and Sons LTD. 1956 p. 1

6/ Gimson, A.C. An Introduction to the Pronunciation of English, London, The English Language Book Society and Edward Arnold LTD. 1976 p. 29

(egressive or ingressive)

3. Do the vocal cords vibrate or not? (voice or voiceless).
   It is voiced when in producing the sound the vocal cords are brought sufficiently together that they vibrate. When the glottis is held open so that the air from the lungs passes without vibration of the vocal cords, the sound produced is called voiceless.
4. Is the soft palate raised, directing the air-stream through the mouth, or lowered to allow the passage of the air through the nose? (oral or nasal)
5. At what point or points and between what organs does the closure or narrowing take place? (place of articulation)
6. What is the type of closure or narrowing at the point of articulation? (manner of articulation)

The answers for those questions have been able to provide a concise phonetic label for the sounds. However, a voiced sound may not differ from its voiceless pair in the presence or absence of voicing only, but also in the degree of exhalation of breath and the muscular effort involved in the articulation. 7/ Since this aspect can become a significant factor for comparing the sound systems of English and Indonesian, it deserves consideration in the analysis.

B. The Classification of English Consonants

1. Pulmonic and egressive consonants
   The usual source for our vocal activity is provided by an air stream expelled from the lungs. All normal and esential sounds in English require egressive lung air in the production.
2. Voiced and voiceless consonants
   All English consonants are either voiced or voiceless. There

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7/ Gimson, A.C. An Introduction to the Pronunciation of English, London, The English Language Book Society and Edward Arnold LTD. 1976 p. 29

are fifteen consonants that are produced with the vibration of the vocal cords, they are /b,m,v,w,d,n,z,ʒ, dʒ,ð,g,n,j,l and r /. The other nine consonants, /p,f,t,s,ʃ,t ,θ,k and h/, are produced without the vibration of the vocal cords.

3. The place of articulation

The air that comes out from the lungs is shaped by the articulators and resonators of speech. The essential articulators of speech are the vocal cords, lips, teeth, tongue, hard palate, soft palate, uvula, and the parts thereof. While the resonators of speech through which the sound travels are the pharynx, mouth or oral cavity, and the nasal cavity. According to the place of articulation, English consonants can be classified into seven main classes.

a. Bilabial

It is a sound articulated by the two lips. There are four bilabials namely /p,b,m, and w /.

b. Labio-dental

It is a sound articulated by the lower lip against the upper teeth namely /f/ and /v/.

c. Dental

It is a sound articulated by the tip of the tonue against the upper teeth. They are /θ/ and /ð/.

d. Alveolar

It is a sound articulated by the tip or the blade of the tongue against the alveolar ridge. There are seven consonants of this type, /t,d,n,l,s,z and r/.

e. Palato-alveolar

It is a sound articulated by the blade of the tongue against the alveolar ridge with a raising of the main body of the tongue toward the palate. There are five consonants of this type, /tʃ ,dʒ,ʃ,ʒ, and j /.

f. Velar

It is a sound which is articulated by the back part of the tongue against the soft-palate. There are three consonants of this type, namely /k, g and ŋ/.

g. Glottal

It is a sound articulated in the glottis. There is only one glottal consonant in English, that is /h/.

4. Manner of articulation

In shaping the outward flow of air from the lungs the articulators and resonators of speech move in such a way that obstruct hinder and alter the air stream. The obstruction may be total, intermitent or merely constitute a narrowing sufficient to cause friction, and thus forming a sound or sounds with a certain manner.

According to the manner of articulation, there are six types of consonants in English.

a. Plosive

This is a sound formed by a complete closure of the air passage, behind which the air pressure builds up and can be released suddently or explosively. There are six plosive consonants in English, namely /p, b, t, d, k and g/.

b. Affricate

It is a sound formed by a complete closure at some point in the mouth, behind which the air pressure builds up, and the seperation of the speech organs is relatively slow so that friction is heard as the second element of the sound. There are two affricates in English, namely /t / and /d /.

c. Nasal

It is a sound formed by a complete closure at some point in the mouth, with the soft palate being lowered so that the air

is free to pass out through the nose. There are three nasals namely /m,n, and ŋ/.

d. Lateral

It is a sound formed by a partial closure in which the tongue makes an obstacle in the centre of the mouth or the air channel, but leaving a free passage for the air through one or both sides of the obstacle. There is only one lateral, that is /l/.

e. Fricative

It is a sound formed by narrowing the air passage to such an extent that the air in escaping produces audible friction. There are nine fricatives in English, they are /f,v,θ,ð,s,z, ʃ,ʒ, and h/.

f. Semi-vowel

It is a voiced gliding sound in which the speech organs start at or near a close vowel and immediately move away to some other vowel. There are three semi-vowels, namely /w,j and r/.

5. Oral and nasal

In producing a consonant, the soft palate may be held in its raised position so that the air escapes through the mouth, forming an oral sound, or it may be lowered so that the air stream passes through the nasal cavity to form a nasal sound. Oral consonants include plosives, affricates, fricatives, laterals and semi-viwels. While /m, n, and ŋ/are nasals.

6. Fortis and lenis

English voiced consonants are usually expelled with a weaker breath and laxer tention of muscle than the production of voiceless consonants. In other words, English voiced consonants are lenis, while the voiceless ones are fortis.

The diagram of English consonants

	bilabial	labio-dental	dental	alveolar	alveo-palatal	velar	glottal
voiceless stop	p			t		k	
voiced stop	b			d		g	
voiceless affricate					tʃ		
voiced affricate					dʒ		
voiceless fricative		f	θ	s	ʃ		h
voiced fricative		v	ð	z	ʒ		
lateral (vd)				l			
nasal (vd)	m			n		ŋ	
semi-vowel (vd)	w			r	j		

C. The classification of Indonesian consonants

Indonesian consonants can be classified according to the same principles as used to classify English consonants. All normal and essential consonants of Indonesian are made with egressive lung air, and they may belong to either one of the voiced or voiceless type.

The following diagram shows the classification of Indonesian consonants according to the place and manner of articulation as well as the presence or absence of voice.8/

8/ This classification is based on the analysis made by Gorys Keraf in his book, TATABAHASA INDONESIA untuk Sekolah Lanjuatan Atas; Nusa Indah-Arnoldus Ende, Flores 1978.

	bilabial	labio-dental	dental	alveolar	alveo-palatal	velar	glottal
voiceless stop	p		t		tʃ	k	q
voiced stop	b			d	dʒ	g	
voiceless fricative		f	s		ʃ	x	h
voiced fricative		v	z				
lateral (vd)			l				
nasal (vd)	m			n	ny	ŋ	
trill (vd)				r			
semi-vowel (vd)	w				j		

As it is said, merely differentiating voived from voiceless sounds is not enough without considering the degree of breath and the muscular effort which are involved in the articulation. Unlike English consonants, Indonesian voiced consonants tend to be fortis, while the voiceless consonants are usually lenis.

In respect to the pronunciation of /s/ and /z/, however, many Indonesian speakers also use alveolar instead of dental, so that several linguists classify them as alveolar fricatives.9/

9/Alisyahbana, Sutan Takdir. TATABAHASA BARU BAHASA INDONESIA, Jakarta, PT. Pustaka Rakyat, 1961

C H A P T E R I I

THE ANALYSIS OF ENGLISH FRICATIVES

It has been defined that fricatives are sounds of speech that are formed by narrowing the air passage to such an extent that the air in escaping produces audible friction.[10] Thus the significant characteristic of fricative is speech noice,[11] .that is sound resulted from irregular vibration produced by the stream of breath while passing through the constricted opening between an articulator and a point of articulation.

Fricatives can be voiced or voiceless. When a fricative is voiced there are two kinds of sound present at the same time, the voice or vibration of the vocal cords and the local friction noice. The voiced fricatives are /v,ð,z, and ʒ /. The other, /f,θ,s, ʃ and h / are voiceless.

A fricative may either be slit or grooved. It is slit when it is articulated with the blade of the tongue flat, i.e. /f,v,θ,ð and h/. It is grooved when it is articulated with the blade of the tongue grooved, i.e. /s,z,ʃ and ʒ /.

A fricative may be sibilant, meaning that it is produced with a hissing sound, or non-sibilant, meaning that it is produced without a hissing sound. Sibilant fricatives are /s,z,ʃ and ʒ/, while the other five fricatives are non-sibilant.

In order to give an accurate description of English fricatives, I will discuss each fricative seperately according to the symbols, articulation, allophonic variants and the distributions.

10/ See p. 5 : fricative.
11/ Jones, Daniel, An Outline of English Phonetics; Cambridge, W.Herffer, 1956

A. Voiceless Labio-dental Fricative /f/

1. Writing symbols

This phoneme is symbolized by f,ff,ph,gh e.g. fork, off, physics, laugh. Ph represents /f/ in words derived from Greek.[12] Gh represents /f/ only in several words, i.e. laugh, enough, rough, cough, tough, trough, draught, slough and chough.

2. Articulation

a. Essential process

The phoneme /f/ is a fortis slit fricative. It is made by directing the air stream from the lungs through a flat aperture which is made by a light contact between the lower lip and the upper incisors. The lower lip is the active articulatory organ.

b. Detailed description

In producing this phoneme the soft palate is raised and the nasal resonator shut off so that the air stream is forced out from the lungs into the mouth. In order to place

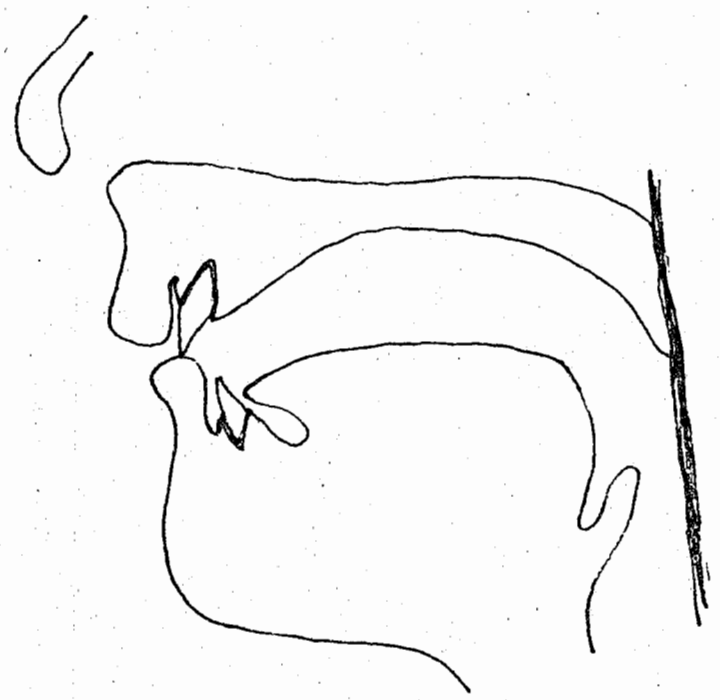

Fig. 1 The position of lip for /f/ and /v/

the lip on the right position of the sound, the lower jaw

12/ Ripman, Walter. English Phonetics, J.M.Dent and Sons LTD. 1957 p. 62

is lowered slightly so that the lip can establish a contact with the upper incisors. The droping of the lower jaw creates the opening of the mouth. The lower lip must be raised slightly and drawn backward to make contact with the edge of the upper teeth. The upper lip is frequently raised and slightly everted.

The actual point of contact varies according to the adjacent vowel, e.g. before a back rounded vowel the contact of the lower lip and the upper incisors tends to be more retracted than when it is followed by a front spread vowel.

3. Allophonic variants

The variants of /f/ are mainly articulatory ones, in which the adjacent vowel causes different positions of the lip. In articulating /f/ the position of the lip approximates to that required for the adjacent vowel. The differences of lip-position are, however, slight and for practical purposes it can be said that E/f/ consists of a single sound and has no subsidiery members differing appreciable from its principle member.

4. Distributions

a. Initial, medial, final

This phoneme occurs initially, medially and finally.

Initially : fit, feet, fat, photo, fail, fall

Medially : affair, offer, tougher, suffer

Finally : leaf, laugh, strife, enough, tough

b. Pre-vocalic clusters

This phoneme may occur with /l,r or j / in the pre-vocalic clusters:

/flV-/ : fly, flap, flee, flu

/frV-/ : fry, free, fresh, frost

/fjV-/ : few, fewer, fury, fuse

/f/ may also occur after initial /s/ :

/sfV-/ : sphere, sphinx

c. Post-vocalic clusters

1) /-VCC/ : /-Vmf/ : triumph, nymph, lymph

/-Vlf/ : wolf, golf, gulf, self

/-Vft/ : soft, left, tuft, draft

/-Vfθ/ : fifth

/-Vfs/ : coughs, laughs, muffs, roofs

2) /-VCCC/ : /-Vfts/ : drafts, tufts, lifts, lofts

/-Vfθs/ : fifths

/-Vmfs/ : nymphs, lymphs, triumphs

/-Vlfθ/ : twelfth

/-Vlfs/ : gulfs, golfs

B. Voiced Labio-dental Fricative /v/

1. Writing symbols

This phoneme is represented by v, vv, f, ph e.g. love, navvy, of, nephew.

2. Articulation

Since /v/ is the voiced cognate of /f/, the process of its articulation is essentially the same as that of /f/ 13/ except that it is accompanied with the vibration of vocal cords, and it needs a weaker breath and a laxer tention of muscle because it is a lenis sound. However, it tends to be fully voiced only when it occurs between voiced sounds.

3. Allophonic variants

This phoneme has a voiceless variant that occurs initially or finally in an isolated word, e.g. love [lʌv̥] and vine [v̥ain] . When occuring between voiced sounds [v] is always fully voiced.

13/ See Figure 1 page 9 : The position of the lip for /f/ and /v/.

The position of the lip during the production of /v/ is approximate to those required for the adjacent vowels.

/v/ assimilates easily to /f/ before a fortis consonant initially in the following words, have to, love to, have some, move forward, [hæf tu] , [lʌf tu] ,[hæf sʌm], [mu:f fɒwəd].

4. Distributions

a. Initially, medially and finally

This phoneme may occur initially, medially or finally.

Initially : veal, vex, vice, variant, vast, vowel

Medially : ever, nephew, cover, event, lover, over

Finally : leave, love, live, have, move, groove

/v/ is sometimes omitted in the unstressed form of the words of, have, and five such as in the following expressions: The cover of the book.[ðə kʌvə(r)ə ðə buk]

He should have walk.[hi: ʃudə wɒ:k]

I've five dollars. [aiv fai dɒlə:z]

b. Pre-vocalic clusters

There is only one pre-vocalic cluster in which /v/ occurs, that is /vyV-/ e.g. in the word view.

c. Post-vocalic clusters

1) /-VCC/ : /-Vlv/ : solve, valve, delve

/-Vvd/ : lived, loved, moved, sieved

/-Vvz/ : lives, loves, moves, hives

2) /-VCCC/ : /-Vlvz/ : shelves, solves, valves, halves

/-Vlvd/ : shelved, solved

C. Voiceless Dental Fricative /θ/

1. Writing symbols

/θ/ is always symbolized by th, e.g. think, bath.

2. Articulation

a. Essential process

This pheneme is a fortis slit fricative. It is made by placing the tongue in light contact with either the lower back surface of the upper incisors or with the cutting edges. While in this position, a broad stream of air is directed between the tongue-tip and the teeth, causing friction. The tongue is the active agent of the articulation.

b. Detailed description

The soft palate is raised and the nasal resonator shut off so that the air stream escapes through the mouth, forming an oral sound. The lower jaw is just dropped a little bit so that the lower teeth do not bite the tongue tip, but they are simply in light contact with it. They become the base to make the tip of the tongue steady.

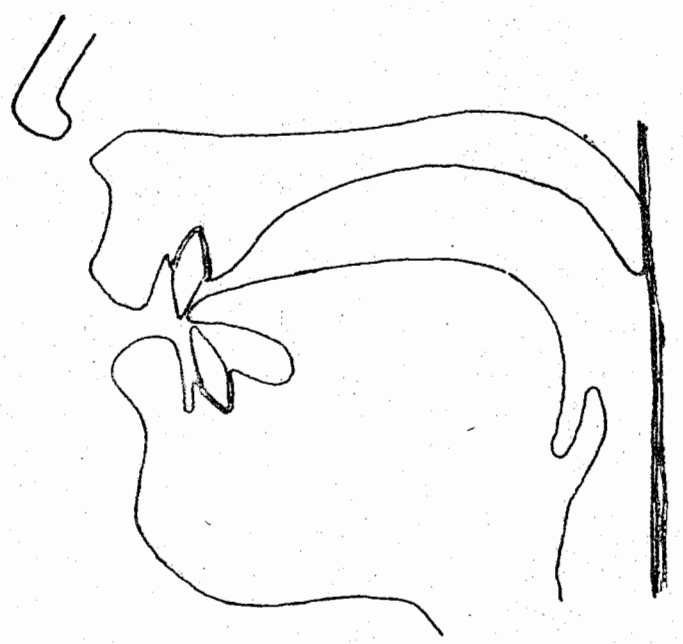

Fig. 2 The tongue position for /θ/ and /ð/

The tip and the blade of the tongue are elevated just a bit from the rest position. The blade of the

tongue may be raised as high as the upper teeth, and usually makes a contact with the surface or inner edges of the teeth.

In addition to the elevation of the blade of the tongue, its upper surface is flattened so that the air stream will be broad rather than being narrow, and forming a slit type of fricative. The tongue must be thrust forward to the point where it either touches the back edge of the upper incisors, or in the interdental position, and extends slightly between the upper and lower incisors.

Because of the dropping of the lower jaw, the lips tend to open passively, but the position actually depends upon the adjucent vowel, e.g. being spread as in thief or teeth [θi:f], [ti:θ] ; rounded as in truth or thought [tru;θ], [θɔ:t]; or neutral as in thumb [θʌm].

3. Allophonic variants

Although /θ/ can be regarded as comprising only one sound, as there are no members of the phoneme differing to any marked extent from the principle member, there are some articulatory variants in which the position of the lips varies due to the adjacent vowel. The position of the lips which qualifies a vowel also influences the formation of /θ/ when it occurs adjacent to it, so that for /θ/ the lips may be spread, rounded or neutral.[14]

4. Distributions

a. Initially, medially, and finally

This phoneme may occur initially, medially or finally.

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[14] / See page 13: Detailed description of articulation.

Initially : thief, thick, thin, thought, thank.

Medially : ether, ethics, method, author, anthem.

Finally : heath, health, breath, cloth, earth.

b. Pre-vocalic clusters

/CCV-/ : /θrV-/ : three, thread, thrill, through.

/θjV-/ : thew.

/θwV-/ : thwart, thwack, thwaite.

c. Post-vocalic clusters

1) /-VCC/ : /-Vpθ/ : depth.

/-Vtθ/ : eighth.

/-Vmθ/ : warmth.

/-Vnθ/ : month, tenth, seventh.

/-Vlθ/ : health, wealth, stealth.

/-Vfθ/ : fifth.

/-Vŋθ/ : length, strength.

/-Vθt/ : earthed.

/-Vθs/ : breaths, wreaths.

2) /-VCCC/ : /-Vksθ/ : sixth.

/-Vntθ/ : seventh.

/-Vndθ/ : thousandth.

/-Vŋkθ/ : length, strength.

/-Vlfθ/ : twelfth.

/-Vpθs/ : eighths.

/-Vnθs/ : tenths.

/-Vlθs/ : healths.

/-Vfθs/ : fifths.

/-Vdθs/ : widths.

D. Voiced Dental Fricative /ð/

1. Writing symbols

The phoneme / ð/ is always symbolized by th e.g. they, them, there.

2. Articulation

Because / ð/ is the voiced cognate of /θ/, the articulation of / ð/ is essentially the same as that of /θ/ except in the presence of voice and the weaker exhalation of breath as well as the laxer tention of muscle.[15/]

3. Allophonic variants

/ ð/ has two allophones of fully voiced [ð] and partially voiced [ð̬]. The latter occurs in initial and final positions. When occuring between voiced sounds it is always fully voiced.

Examples: other [ʌ ðə]

therefore [ðɛə fɔ:]

herewith [hiəwið̬]

The position of the lips is influenced by the adjacent vowel. It may be spread, rounded or neutral.

4. Distributions

a. Initially, medially and finally

The phoneme /ð/ occurs initially, medially and finally.

Initially : they, there, them, this, the, though, thy

Medially : breathing, leather, other, mother, father

Finally : seethe, with, soothe, lathe, writhe

A common pronunciation without / ð/ may be found in sequences of the type /s, z/ followed by unaccented / ð/ in the expressions such as Is there any [ízzə(r)ɛ̀ni] , What's the time? [wɒtsə̀taim] , because the /s/ or /z/ sound influences / ð/ in rapid speech.

b. Pre-vocalic clusters

This phoneme never occurs in pre-vocalic clusters.

15/ See figure 2 page 13 : The tongue position for /θ/ and / ð/.

c. Post-vocalic clusters.

/-VCC/ : /-VðD/ - soothed, breathed, seethed, wreathed.

/-VðZ/ - soothes, breathes, seethes, wreathes.

E. Voiceless alveolar fricative /s/

1. Writing symbols.

/s/ is symbolized by s, ss(e), c or sc before e or i, z, and x, e.g. so, pass, finesse, city, scene, blitz, axe. After l, n, p, r, -se is pronounced [s], e.g. else, manse, lapse, coarse, except parse. The letter s is not pronounced in aisle, isle, island, demesne, viscount, apropes, corps, charsis, debris.

2. Articulation

a. Essential process

This phoneme is made by directing a narrow stream of air down the grooved tongue and across the cutting edge of the teeth, causing friction between the tongue and alveolar ridge. The tongue is the primary agent of articulation.

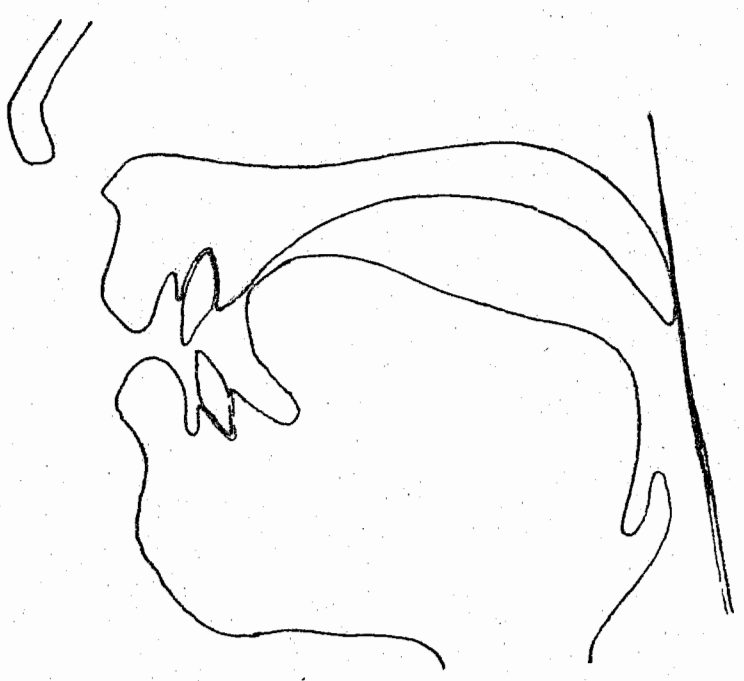

Fig. 3 The Position of /s/ with the tongue-tip raised

b. Detailed description

The soft palate is raised and the nasal resonator is shut off so that the stream of air comes out through the mouth. As the primary agent of articulation, the tongue ditermines the formation of the characteristic friction for /s/. In articulating this phoneme the entire blade and tip of the tongue are elevated approximate to the alveolar ridge, the upper surface of the tongue is grooved and the side of the blade makes a close contact with the upper side teeth. The air stream escapes through the narrow groove in the centre of the tongue and causes friction between the tongue and the alveolar ridge and in crossing the cutting edge of the teeth. There is a very little opening between the upper and lower incisors.

The tip of the tongue is usually maintained just behind the upper incisors but not in contact with them, or it may be lowered against the lower teeth, it is to be in light contact with them. The blade of the tongue is, then,

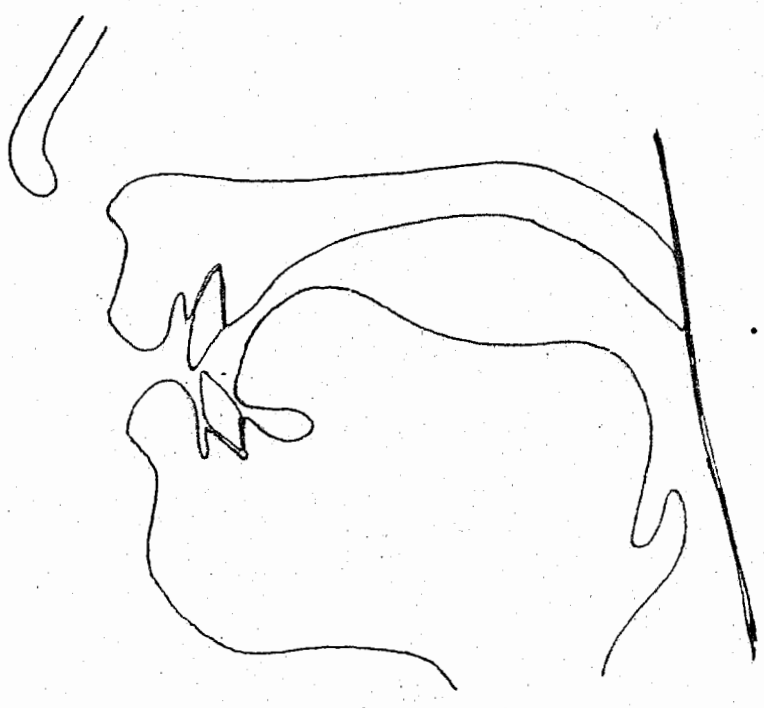

Fig. 4 The position of /s/ with the tongue-tip lowered

humped up so that the outgoing air passes over the grooved

blade rather than over the extreme tip of the tongue.

The position of the lips depends on the adjucent vowel. The lips may be rounded as in soon, loose, lose; spread as in see, seed and sad; or neutral as in sing.

3. Allophonic variants

As it has been mentioned, the position of the lips may be rounded, spread or neutral, depending on the adjucent vowel. These differences are, however, unimportant for ordinary language teaching purposes, and this phoneme may be considered as comprising only one sound.

The different placement of the tongue may also be regarded as the articulatory variants of /s/.

There is a weakened form of /s/ when it is used at the end of a word and preceded by a voiceless consonant, e.g. books [buks̬], box [buks̬] .

4. Distributions

a) Initially, medially, and finally

This phoneme may occur initially, medially, and finally.

Initially : cease, sat, sit, soon, soil, say.

Medially : cluster, concert, escape, pencil, whisper.

Finally : pass, goose, ice, mouse, force, face, blitz.

There is sometimes assimilation of /s/ to the adjoining sound. For examples, /s/ in rasp [rɑ:sp] and wrist [rist] becomes /z̬/ in raspberry [ŕɑ:z̬beri] and wristband [ŕiz̬bənd], because /p/ becomes /b/ and /t/ mute.

b) Pre-vocalic clusters

1) /CCV-/ : /slV-/ : slit, slide, slow, sleep, slay.

/syV-/ : sue.

/swV-/ : sweet, swim, swim, swell.

/spV-/ : spend, spin, spoil, speak.

/stV-/ : stand, stay, still, stone.

/skV-/ : skin, score, sky, skip.

/smV-/ : small, smoke, smack, smear.

/snV-/ : snow, snail, sneeze, snack.

/sfV-/ : sphere, sphinx,

/svV-/ : svelte.

2) /CCCV-/ : /sp + l,r,j, + V- / -

/splV-/ : split, splash, splice.

/sprV-/ : spring, spray, spread.

/spjV-/ : spew.

/st + r,j, + V-/ -

/strV-/ : string, straw, strap.

/stjV-/ : stew.

/sk + l,r,j,w + V-/ -

/sklV-/ : sclerotic.

/skrV-/ : screw, script, scratch.

/skjV-/ : skew.

/skwV-/ : squat, square, squint.

c) Post-vocalic clusters

1) /-VCC/ : /-V + p,t,k,n,l,f,θ + s/

/-Vps/ : copse, caps, keeps, lips.

/-Vts/ : rats, bets, boots, hits.

/-Vks/ : six, sex, box, books.

/-Vns/ : fence, tense, once, mince.

/-Vls/ : else, false, pulse.

/-Vfs/ : laughs, coughs, muffs.

/-Vθs/ : breaths, wreaths.

2) /-VCCC/ : - /-V + s,f,l,p,k,n + ts/

/-Vsts/ : fists, tests, rests, roasts.

/-Vfts/ : tufts, lifts, lofts.

/-Vlts/ : faults, belts, bolts.

/-Vpts/ : scripts, crypts.

/-Vkts/ : acts.

/-Vnts/ : hints, dents, tents.

- /-V + f,l,n,t,p + θs/

/-Vfθs/ : fifths.

/-Vlθs/ : healths, wealths.

/-Vnθs/ : ninths, tenths, thirteenths.

/-Vtθs/ : eighths.

/-Vpθs/ : depths.

- /-V + s,l,m + ps/

/-Vsps/ : rasps, lisps, wasps.

/-Vlps/ : helps, gulps.

/-Vmps/ : limps, glimps.

- /-V + s,l,ŋ + ks/

/-Vsks/ : masks, desks, asks, tasks.

/-Vlks/ : silks, milks, bulks.

/-Vŋks/ : sinks, ranks, bunks.

- /-V + l,m + fs/

/-Vlfs/ : gulfs, golfs.

/-Vmfs/ : nymphs, lymphs.

- /-V + l,n,k,d,t,p + st/

/-Vlst/ : pulsed, walzed.

/-Vnst/ : danced, pranced.

/-Vkst/ : text, next.

/-Vdst/ : midst.

/-Vtst/ : blitzed.

/-Vpst/ : lapsed.

- /-Vksθ/ : sixth.

3) /-VCCCC/ ⊥ /-Vksts/ : texts. /-Vntθs/ : thousandths.

/ksθs/ : sixths. /-Vŋkθs/ : lengths.

/-Vlfθs/ : twelfths. /-Vftθs/ : fifths.

F. Voiced alveolar fricative /z/

1. Writing symbols.

The phoneme /z/ is symbolized by s,z,ss,zz,x, e.g. has, zeal, dessert, dizzy, exact.

2. Articulation

Since /z/ is the voiced cognate of /s/, its articulation is essentially the same as that of /s/ except in the presence of voice and the weaker exhalation of breath and the laxer tension that accompany it. For the position of tongue in producing this phoneme see figure 3, page 17.

3. Allophonic variants

A partially voiced [z̬] is generally heard when occuring in final position and preceded by another consonant, e.g. heads [hedz̬], sounds [saundz̬]. [z̬] is similar to [s] but it is produced with a weaker force of breath. A partially voiced [z̬] may also be heard when it occurs initially, e.g. zoo [z̬u:], zebra [z̬i:brə]. When occuring between voiced sounds, /z/ is always fully voiced.

In the initial position /z/ usually begins without voice and in the final position it usually begins with voice and ends without voice.

Other variant of /z/ occur due to the different placement of the tongue-tip (see figures 3 and 4, pp. 17 and 18). Some speakers articulate this phoneme with the tongue-tip raised, and others articulate it with the tongue-tip lowered.

The position of the lips in producing this phoneme also depends on the adjacent vowel. The lips may be spread after /æ/ as in Zachary [z̬ækəri] ; rounded after /u:/ as in zoo [z̬u:] ; or neutral after /e/ as in zest [z̬est] .

Sometimes /z/ assimilates to the adjoining voiceless

sound. For examples /z/ in news [nju:z] and used [ju:zd] becomes /s/ in newspaper [nˊju:sˋpeipə] and he used to do it [hi: ˊju:s tə ˋdu: it].

4. Distribution

a. Initially, medially and finally

This phoneme can occur in initial, medial and final positions.

Initially : zeal, zest, zoo, zone

Medially : easy, lazy, bazaar, thousand, palsy

Finally : is, was, does, goes, gaze

b. Pre-vocalic clusters

/CCV-/ : /zlV-/ : zloty

/zjV-/ : zeugma, Zeus, Zürich

/zwV-/ : zwieback

c. Post-vocalic clusters

1) /-VCC/ : - /-V + b,d,g,m,n,ŋ,l,v,o + z /

/-Vbz/ : cabs, rubs, mobs, robes

/-Vdz/ : adze, beds, seeds, leads

/-Vgz/ : figs, bags, sags, rugs

/-Vmz/ : combs, rooms, thumbs, bombs

/-Vnz/ : bins, lens

/-Vŋz/ : rings, things, hangs, sings

/-Vlz/ : balls, calls, falls, tells

/-Vvz/ : lives, knives, moves, stoves

/-VðZ/ : breathes, wreathes, bathes

- /-Vzd/ : raised, praised

2) /-VCCC/ : /-Vndz/ : mends, hands, lends

/-Vlbz/ : bulbs

/-Vldz/ : builds, holds

/-Vlmz/ : films, elms, helms

/-Vlvz/ : shelves, valves, solves

/-Vlnz/ : kilns

palate, while the inside rim of the tongue is in contact with the upper side teeth. The lips are usually protruded slightly, causing slight lip-rounding. Many speakers articulate this phoneme by placing the tip of the tongue behind the lower teeth.

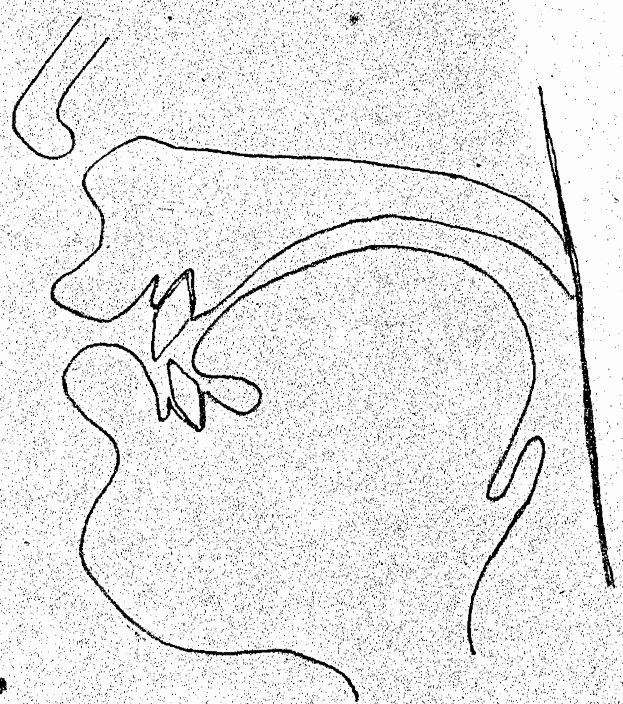

Fig. 6 The position of /ʃ/ with the tongue-tip lowered.

3. Allophonic variants

This phoneme may be considered as comprising only one sound because the differences resulted from the placement of the tongue-tip and the different position of the lips do not cause any subsidiary members that differ to any marked extent from the principle member.

4. Distributions

a. Initially, medially, and finally

This phoneme may occur in initial, medial and final positions.

Initially : she, shoe, shout, shop.

Medially : machine, assure, ashore, cushion.

Finally : dish, rush, wash, push.

b. Pre-vocalic clusters

b. Pre-vocalic clusters

There is only one pre-vocalic cluster in which /ʃ/ occurs, that is /ʃrV-/, e.g. in the word shrink rink .

c. Post-vocalic clusters

The post-vocalic clusters in which /ʃ/ occurs are /-VlʃV/ and /-VʃtV/.

/-VlʃV/ : welsh, welch, mulch

/-VʃtV/ : pushed, rushed, wished

H. Voiced Palato-alveolar Fricative /ʒ/

1. Writing symbols

The phoneme /ʒ/ is represented by s, z before u, -si-, e.g. measure, seizure, vision and -ge in French loan words such as beige.

2. Articulation

Because this phoneme is the voiced cognate for /ʃ/, its articulation is essentially the same as that of /ʃ/ except in the presence of voice and the weaker breath as well as the laxer tension as it is a lenis sound. For the position of tongue-tip see figure 5 page 24 and figure 6 page 25.

3. Allophonic variants

Partially voiced /ʒ/ occurs in initial and final positions. When occuring between voiced sounds /ʒ/ is always fully voiced.

Some speakers use slight lip-rounding in all positions, the others use various lip-rounding which depends on the adjacent vowel. Some articulatory variants are formed by the different placement of the tongue-tip, some speakers pronounce it with the tongue-tip raised and the others pronounce it with the tongue-tip lowered.

There is an alternative pronunciation of /dʒ/ for /ʒ/ in final position, e.g.

prestige [presti:ʒ] or [presti:dʒ]

rouge [ru:ʒ] or [ru:dʒ]

4. Distributions

a. Initially, medially and finally

This phoneme occurs in initial, medial and final positions.

Initially : gigolo, gigue

Medially : usual, pleasure, leisure, confusion

Finally : garage, rouge, prestige, beige

b. Pre-vocalic clusters

This phoneme does not occur in pre-vocalic clusters.

c. Post-vocalic clusters

The only cluster in which /ʒ/ occurs is /-Vʒd/, such as in the words camouflaged and rouged.

I. Voiceless Glottal Fricative /h/

1. Writing symbols

The phoneme /h/ is represented by h and wh e.g. how and who.

2. Articulation

a. Essential process

This phoneme is articulated by an obstruction or narrowing that causes friction between the vocal cords. The primary agent for the articulation is the glottis.

b. Detailed description

In articulating this phoneme the soft palate is raised and the nasal resonator shut off so that the air stream from the lungs passes out through the mouth. The mouth is held in the position of vowel. The air stream is

expelled from the lungs with a considerable pressure so that causing friction in the glottis, but not vibration of the vocal cords. The vocal cords in the glottis are brought in such position that the air stream is obstructed to produce the friction.

The position of the tongue and the lips depends on the adjacent vowel.

3. Allophonic variants

The position of the tongue and the lips, as it has just been mentioned, is largely influenced by the adjacent vowel so that this phoneme may be regarded as having as many articulatory variants as there are vowels.

A few speakers use a voiced or partially voiced [ɦ] medially between voiced sounds, such in words as anyhow, perhaps, behind. When this phoneme is pronounced in such a way, the strong stream of breath is accompanied with the vibration of the vocal cords, and the result is the voiced glottal fricative [ɦ] .

4. Distributions

a. Initially, medially and finally

This phoneme only occurs in initial and medial positions, and never in the final position.

Initially : him, hell, habit, hut, half, who, whom.

Medially : ahead, behave, perhaps, anyhow.

Between a strong and a weak vowel /h/ is generally mute, e.g. annihilate [ənaiəˌleit], nihilsm [ńaiiˌliz m], vehemence [ˈviːiˌməns] , rehabilitate [ˈriːəˌbiliteit].

Before a stressed vowel, /h/ is pronounced, e.g. vehicular [viːˈhikyuːlə], prehensile [priˈhensail].

In compound words the/h/at the beginning of the

second part is dropped, e.g. shepherd [ˈʃepəd], forehead [ˈfɔrəd], and in some words with ex- e.g. exhaust [ˈigzɔːst], exhibit [ˈigzibit], exhilarate [ˈigziləreit].

Certain words drop the /h/ sound when occuring in an unstressed position in the sentence. These words may be recognized as having two forms, weak and strong.

	weak	strong		weak	strong
has	[əz]	[hæz]	him	[im]	[him]
have	[əv]	[hæv]	his	[iz]	[hiz]
had	[əd]	[hæd]	her	[ə]	[hə]
he	[iː]	[hiː]	who	[uː]	[huː]

b. Pre-vocalic clusters

The only cluster in which /h/ may occur is /HyV-/ in the word huge.

C H A P T E R III

ENGLISH FRICATIVES COMPARED TO INDONESIAN

In this chapter the writer is going to expose the similarities as well as the differences between English and Indonesian fricatives in order that learning problems can be predicted. The comparation analysis covers some aspects in which the major problems lie, and is based on the propositions set forth by Lado,[16] namely:

1. Does Indonesian have a phonetically similar phoneme?
2. Are the variants of the phonemes similar in the two languages?
3. Are the phonemes and their variants similarly distributed?

Besides, as it has been mentioned in the introduction, differences in writing symbols are also potential for causing pronunciation problems, and thus English and Indonesian fricatives necessitate comparation in respect to the symbols that represent them. This will be discussed after the other three aspects for each phoneme.

A. Voiceless labio-dental fricative /f/

1. Indonesian equivalent phoneme

Indonesian has a similar phoneme to English /f/ (E/f/). It is articulated in the same point of articulation as that of E/f/, that is by placing the lower lip in light contact with the upper incisors. The contact forms a flat apperture through which the outgoing of air-stream from the lungs makes friction. Thus I/f/ is also of the same manner as that

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16/ Lado, Robert. Linguistics Across Cultures; Ann Arbor - The University of Mechigan Press, 1957 p. 13

of E/f/.

E/f/ differs from I/f/ in the degree of breath and muscular effort involved in the articulation. As we know, E/f/ is fortis, but I/f/ is lenis. The production of I/f/ does not need such a degree of breath and tension as in producing E/f/. It is articulated with a relatively weaker energy, and the muscles of the lips, mouth, lungs are in the laxer position.

As English and Indonesian /f/ is of the same place and manner of articulation, an Indonesian learner of English will not find it very difficult either to perceive or to produce English /f/. However, the difference in tension can make him tend to apply the laxer tension and weaker exhalation of breath to E/f/. This transformation may make some nuisance in which the learner's utterance is not intelligible enough to the ears of native speaker. This would be a problem of production, and the learner will not find any trouble in perceiving it althouh he does not recognize the difference between E/f/ and its Indonesian equivalent.

2. Allophonic variants

Similar to the variants of E/f/, Indonesian variants of /f/ are also effected by the adjacent vowel, and are resulting in the difference of tongue and lip position. The lips in forming /f/ may be more retracted or neutral. Although the degree of retraction of the lips is not the same for E/f/ and I/f/ due to the different quality of English and Indonesian vowels, these variants will not constitute a reasonable cause to reduce the ability of the learner to produce E/f/.

3. Distributions

a. Initial, medial and final

There is also a possibility of occurance for I/f/

in initial, medial and final positions.

	E/f/	I/f/
Initial :	face	fitnah "accuse"
Medial :	offer	sifat "manner"
Final :	laugh	maaf "excuse"

b. Pre-vocalic clusters

1) /flV-/ and /frV-/

Indonesian has pre-vocalic clusters using /f/ only in some loan words, such as the loan words flora, fraksi and frustrasi. However, the clusters with /f/ , so far, are merely /flV-/ and /frV-/. based on the original manner that Indonesian formerly has no clusters with /f/, and that the two clusters are actually derived from English [17] as a new addition to the sound system of Indonesian, learning these clusters would still need attention and they may not be mastered automatically by the learner.

There is a possibility to insert a vowel between /f/ and the second phoneme to form a sequence /CVCV-/ which contrasts to Indonesian /CVCV-/. Thus the learner will say: [fəlɒrə] instead of [flɒrə]

[fəræk∫ən] " " [fræk∫ən]

Moreover, the insertion of [ə] in Indonesian [fəlora] and [fəraksi] does not mark any phonemic difference between those expressions [flora] and [fraksi]. Anyhow, the use of /flV-/ and /frV-/ in Indonesian can become a helpful means for mastering the English

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17/ Departemen Pendidikan dan Kebudayaan. Pengajaran Bahasa dan Sastra, PEDOMAN UMUM EJAAN BAHASA INDONESIA YANG TELAH DISEMPURNAKAN, Jakarta 1977.

corresponding clusters.

2) /fjV-/

The English cluster /fjV-/ is only used with the vowel /u:/ and the diphthong /uə/, few [fju:], fewer [fjue]. The absence of the corresponding cluster in Indonesian may cause a problem for the learner either in recognizing or in producing it. The alternative that he may make as the substitute is influenced by the second phoneme of the cluster, /j/. Since this phoneme is a semi-vowel in both English and Indonesian, of which the articulatory organs in articulating it start from the position of /i/, and in the two words move to the position of /u:/ and /uə/, the vowel /i/ will be used as the substitute for /j/ or it may be inserted between /f/ and /j/. Then we will hear the learner say:

[fiu:] and [fiu] or vs. [piuh] piuh "twisted"

[fiju:] and [fiju] [pijama] piyama "pyjamas"

c. Post-vocalic clusters

1) /-Vmf/ and /-Vlf/

These clusters are not found in Indonesian, but /m/ and /l/ can occur finally, e.g. lem [lem] "glue" and ikal [ikal] "curl", so that the learner may find both hearing and production problems in which he will easily mishear or misproduce the final /f/ in the clusters. Thus he will perceive the words triumph and wolf as [traiəm] and [wul] instead of [traiemf] and [wulf], and he will make the same errors when he has to produce them.

Instead of the clusters, Indonesian also has the sequence /-VCVC/ which the learner may transfer to English to form the sequence /-Vməf/ or /-Vləf/ vs. [map] map "book case" and /-Vlaf/ kilaf [kilaf].

Thus the learner will say [traiəməf] and [wuləf] instead of [traiəmf] and [wulf].

2) /-VfC/ vs. /-VfVC/

Because Indonesian also has the possibility to use /f/ finally, it will not be difficult for the learner to recognize or to produce it in the cluster /-VfC/, e.g. /-Vft/, /-Vfθ/ and /-Vfs/ as in the words raft, fifth, and roofs. But the learner will find a problem with the second phoneme in the cluster, that is /t, θ or s/. It is easier to identify or to produce the phoneme which is adjacent to the vowel. Instead of producing the cluster the learner may substitute it with the sequence /-VfVC/.

raft	[ra:fət]		[wafat]	wafat "died"
fifth	[fifəθ]	vs.	[sifat]	sifat "manner"
roofs	[ru:fəs]		[nafas]	nafas "breath"

3) /-VfCC/ and /-VCfC/

The learner may find a greater difficulty with these types of cluster because they are composed of three phonemes. Usually the midle phoneme is the most troublesome and the learner will more frequently mishear or misproduce it rather than missing the other two phonemes. However, the first phoneme can be easier than the third either to recognize or to produce.[18] Therefore, /f/ in rafts and fifths is easier than that in triumphs or twelfth, and the learner will only hear or produce either one or two of the three phonemes in the clusters, e.g.

rafts is pronounced [ra:f], [ra:ft], [ra:fs]

fifths " " [fif], [fifs], [fiθ], [fiθs]

18/ Allen Harold B. Teaching English as a Second Language. New York, McGraw-Hill Book Company 1965 p. 108

triumphs is pronounced [traiəm], [traiəms] etc.

gulfs " " [gʌl], [gʌlf], [gʌls] etc.

twelfth " " [twelf], [twels] etc.

An insertion of a vowel or vowels between the phonemes is also possible. Final /s/ in English is usually weak so that the vowel is inserted between the first two phonemes, e.g. the words drafts, tufts, lifts and lofts are pronounced [drɑ:fəts] instead of [drɑ:fts]

[tʌfəts] [tʌfts]

[lifəts] [lifts]

[lɒfəts] [lɒfts]

The insertion of /ə/ however, may happen between the final two phonemes too, forming the sequence resembling to Indonesian /-VCCVC/, e.g. tumpas tumpas "extinguish" so that the learner will say [nimfəs], [limfəs], [traiəmfəs] instead of [nimfs], [limfs] and [traiəmfs] for the words nymphs, lymphs and triumphs.

The substitution of Indonesian sequence /-VCVCVC/ for the cluster /-VCCC/ is also possible, especially if the successive production of the three phonemes in the cluster needs a relatively a great effort, e.g. twelfth, fifths may be pronounced [tweləfəθ] and [fifəθəs], contrasted with [pələpas] pelepas "looser" or [pəpatah] pepatah "proverb".

4. Writing symbols

Indonesian /f/ is only represented by f, while English /f/ is represented by f, ff, ph and gh.

I/f/	E/f/
f - fajar "dawn"	f - fat
	ff - off

I/f/	E/f/
	ph - physics.
	gh - laugh.

Excluding the possibility of spelling problems caused by the different writing systems used for English and Indonesian /f/, there is still a possibility of pronunciation problems caused by the same reason, namely that an Indonesian learner of English may not understand how to pronounce ff, ph, and gh, or that he pronounces them incorrectly as Indonesian has no letter clusters as used to represent E/f/, and he may treat them as symbolizing a combination of phonemes. Even f itself becomes a problem if it does not symbolize the phoneme /f/ but /v/, e.g. of [ɒv], as in Indonesian f always symbolizes /f/.

B. Voiced labio-dental fricative /v/

1. Indonesian equivalent phoneme (I/v/)

Indonesian has a similar phoneme to E/v/, which is also the voiced cognate of /f/. The same as E/v/, it is articulated in the same place of articulation, i.e. by placing the lower lip in light contact with the upper incisors.

E/v/ differs from I/v/ only in the degree of exhalation of breath and tension involved in the articulation. E/v/ is lenis, while I/v/ is fortis so that it is articulated with a relatively stronger energy with a greater tension of muscle.

2. Allophonic variants

I/v/ has two variants of fully voiced [v] and voiceless [v̥]. Voiceless [v̥] is practically the same as E/f/, because besides that E/f/ is a voiceless labio-dental fricative, it is fortis, like I[v̥].

Because /v/ is a new phoneme and is not yet established in Indonesian, only a few people use the voiced variant, and most Indonesian speakers use the voiceless variant in any position, namely in initial and medial positions as it does not occur in final position.

For examples: [váluta] valuta "valuation"

[várietas] varietas "variety"

[eváluasi] evaluasi "evaluation"

[univérsitas] universitas "university"

Since the voiceless variant in Indonesian is more commonly used, an Indonesian learner of English would easily get troubles in both perceiving and producing the voiced variant. He is not ready to transfer the voiced [v] of Indonesian to English and would recognize E/v/ as strong /f/. Thus we will hear the learner say:

[féri]	instead of	[véri]
[fæ lju:]		[væ lju:]
[ifæ lju eit]		[ivæ ljueit]
[lif]		[liv].

Another effect of using voiceless [v̥] in all positions is the lack of ability for the learner to recognize the fully voiced [v] from the partially voiced variant, and thus he will tend to devoice the fully voiced variant in intervocalic position. The fully voiced variant provides a greater difficulty in perceiving or producing it rather than in perceiving of producing the partially voiced variant.

Besides replacing E/v/ with /f/, a learner may substitute it with another phoneme, that is /w/, because they are both voiced and articulated in the same place, i.e. labial.

There are some articulatory variants of both English and Indonesian /v/, which are conditioned by the adjucent vowel, and result in the different position os the lips. But these subsidiary members may be considered as unimportant for practical

practical linguistic purposes.

3. Distributions

a. Initial, medial and final

Indonesian /v/ is found only in loan words, which are all from English except the Latin loan word visum.[19] Since these words are accepted in Indonesian with some phonetical change, the phoneme /v/ is then found only in initial and medial positions. English /v/ occurs in the three positions, initially, medially and finally, e.g.

	E/v/	I/v/
Initially:	variety	varietas
Medially:	evaluation	evaluasi
Finally :	live	-

The lack of final /v/ in Indonesian engreaters the difficulties to learn E/v/ occuring in the final position, and the learner will easily recognize it as /f/. For example the words active [ǽktiv] becomes [ǽktif] vs. aktif [aktif], productive [prədʌ́ktiv] is pronounced [prədʌktif] vs. produktif [produktif].

b. Pre-vocalic clusters

Indonesian /v/ does not occur in any pre-vocalic cluster, but English /v/, on the other hand, only occurs in the cluster /vjV-/ and is merely used with the long vowel /u:/ in the word view [vju:]. The lack of the corresponding cluster in Indonesian may create both hearing and production problems for the learner. Provided that he has mastered the production of Indonesian /v/ by itself, he may still have a problem with it when it occurs in the cluster. He may substitute it with one or two sequences that exists in Indonesian, i.e. /CVV-/ or /CVCV-/. To form such sequences he will

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19/ Poerwodarminta, W.J.S., Kamus Bahasa Indonesia, Jakarta P.N. Balai Pustaka 1976

use the vowel /i/ either to substitute /j/ or to be inserted between the consonants in the cluster, because /i/ is the phoneme from which the speech organs in producing /y/ as a semi-vowel start. Thus the word view may be heard or produced as:

[víu:] vs. [bíus] bius "intoxicated" or

[víju:] vs. [pijama] piyama "pyjamas"

c. Post-vocalic clusters

The only post-vocalic clusters in which E/v/ can occur are /-Vlv/, /-Vlvd/, /-Vlvz/, /-Vvə/, /-Vvd/, e.g. solve, solved, solves, saves, saved.

1) /-VCC/

Indonesian has no corresponding cluster, but it has the sequence /-VCVC/ instead, which may be transfered as the substitute when the learner isto produce this cluster.

For examples:

solve [sɔlv] becomes [sɔ́ləv] vs. [sáləb] salɐb "salve"

saves [seivz] " [séivəz] vs. [təbas] tebas "cut"

saved [seivd] " [séivəd] vs. [sábət] sabet "lash"

Due to the lack of the corresponding cluster in Indonesian, it is also possible that the learner merely hears or produces one of the two phonemes constituting the cluster. It is not very difficult for him to recognize the phoneme /l/ because it occurs finally in Indonesian e.g. binal [bínal] "troublesome", while the phoneme /v/ in saves and saved will be easily recognized as /f/ because Indonesian has final /f/ instead of /v/, e.g. maaf [máaf] "excuse". Thus, the words solve, saves and saved may be recognized or produced as: [sɒl], [spf], or [seif].

2) /-VCCC/

In respect to the cluster consisting of three consonants, the learner may also hear or produce only one or two consonants of the three, and the middle consonant may be more frequently omitted because it practically most difficult than the other two.The learner will, therefore, recognize or produce solves and solved as [sɒl], [sɒld], [sɒlz]. But since the phonemes /d/ and /z/ in the clusters are added as to form the past or singular form of the verb solve, the learner can have mastered the cluster /-Vlv/ before he is able to produce /-Vlvd/ and /-Vlvz/, and he will frequently say [sɒlv] for both solved and solves.

An insertion of one vowel or two may happen as a result of transfering the Indonesian sequences /-VCCVC/ and /-VCVCVC/ to English, for.examples:

[sɒ́lvəz] vs. [sálvo] salvo "salvo"
[sɒ́lvəd] vs. [súlfat] sulfat "sulphate"
[sɒ́ləvəz] vs. [mélepes] melepes "broken"
[sɒ́ləvəd] vs. [sélaput] selaput "membrane"

4. Writing symbols

I/v/ is symbolized only by v and found only in English loan words and one word from Latin, while E/v/ is represented by v, f, vv, ph, e.g.

I/v/	E/v/
varietas	v : voice
vitamin	vv : navvy
evaluasi	f : of
televisi	ph : nephew.

Since v represents the phoneme /v/ in both English and Indonesian, the learner will find a problem resulted from the influence of this symbol, except when it is found in the letter cluster vv , which may cause the learner to regard it as representing a long sound /vv/. The other symbols of E/v/ may interfere with the learning of the phoneme, in which the learner regards them as symbolizing /f/ and /ph/ instead of /v/, e.g. of and nephew are pronounced [ɒf] and [nífju:] or [niphju:] instead of [ɒv] and [nívju:] .

C. Voiceless Dental Fricative /θ/

1. Indonesian equivalent phoneme

Indonesian has no equivalent to English /θ/. This phoneme is completely new for an Indonesian learner of English and provides difficulties in both hearing and producing it in any position. The absence of the equivalent phoneme in Indonesian causes the learner to transfer one or more phonemes from Indonesian as a substitute for /θ/. Understanding the place and manner of articulation as well as the voicing of English and Indonesian consonants will enable us to know the phoneme that has the greatest possibility to substitute for /θ/. The simplest way can be done by looking at the diagrams of both English and Indonesian consonants, see diagrams p. 6 and p. 7.
On these diagrams we can see some phonemes that are close to /θ/ either in the place or manner of articulation. They are /f, t and s/. However, we rarely hear a learner use all the three to substitute for /θ/, and only /t/ or /s/ istead.

/θ/ : voiceless deantal slit fricative

/t/ : voiceless dental stop

/s/ : voiceless alveolar grooved fricative

/f/ : voiceless labio-dental slit fricative

/θ/ contrasts with /t/ only in the manner of articulation, /θ/ is fricative while /t/ is stop. To the manner of articulation, on the other hand, /θ/ is slit fricative in contrast to /s/ which is grooved fricative, while to the place of articulation it is dental in contrast to alveolar. Despite the differences that exist between them, however, the tongue still functionates as the active or primary agent to articulate them, and because of these similarities a learner will produce /θ/ as /t/ or /s/, the same as the way he perceives it. And even if he has been able to identify it as being different from both /t/ and /s/ when he listens to them he may still fail to produce it correctly as producing carries a greater difficulty than just to iden tify it. Thus the words thank, tenth, breath, through and mouth will be heard or produced as:

[tæŋk]	or	[sæŋk]	instead of	[θæŋk]
[tent]		[tens]		[tenθ]
[bret]		[bres]		[breθ]
[tru:]		[sru:]		[θru:]
[maut]		[maus]		[mauθ]

/θ/ and /f/ are of minor difference too, meaning to say that /θ/ is a voiceless dental fricative and /f/ is a voiceless labio-dental fricative, so that the difference in the place of articulation is only partially. However, it hardly happens that /f/ is used as a substitute for /θ/ because it is the lower lip that acts as the active articulatory organ for /f/, while for /θ/ it is the tongue. In articulating /f/ the tongue is completely in neutral position.

2. Allophonic variants

An Indonesian learner of English will not find a great

trouble with the variants of /θ/ because this phoneme comprices only one sound. But in articulating this sound the position of the lips is influenced by the adjucent vowel, so that they may be spread, rounded or neutral, e.g.

spread : [θæŋk] thank

rounded : [θɔ:t] thought

neutral : [θʌndɚ] thunder

These articulatory variants, however, do not add any serious problem in learning /θ/ if the learner has mastered the articulation of English vowels.

3. Distributions

a. Initial, medial, final

As /θ/ occurs in initial, medial and final positions, the substitution of /t/ and /s/ for it can happen initially, medially or finally, e.g.

[θæŋk]	becomes	[tæŋk]	or	[sæŋk]
[ǽnθəm]	"	[ǽntəm]	"	[ǽnsəm]
[máuθ]	"	[máut]	"	[máus]

b. Pre-vocalic clusters

The only pre-vocalic clusters in which /θ/ can occur are /θrV-/, /θyV-/ and /θwV-/, e.g. three, thew, thwart. Actually, the cluster /θrV-/ should not give very much difficulties for the learner provided that he has mastered /θ/ because there are some similar clusters in Indonesian, eventhough it is /t/ or /s/ that is used in the position of /θ/, e.g.

[θri:]	vs.	[tri]	tri	"three"
		[sri]	Sri	a name.
[θril]	vs.	[tril]	tril	a kind of motorcycle.
[θret]	vs.	[sret]	sret	an interjection.

The other two clusters, /θjV-/ and /θwV-/ can be more difficult to learn. The learner would tend to substitute them with an Indonesian sequence such as /CVV-/. The sequence which is made by the learner is influenced by the semivowel following /θ/ in both clusters. In respect to /θjV-/ the learner may substitute /j/ with /i/ to form /θiV-/ or he will insert /i/ between /θ/ and /j/. As to the cluster /θwV-/ the vowel that may be inserted between the phonemes or that will be used to replace /w/ is /u/ because in articulating /w/ the organs of speech start from the position of /u/. Thus the learner will either hear or produce thew and thwart as [θiu:] vs. [tiup] tiup "blow"

[θiju:]

[θuɔ:t] vs. [tua] tua "old"

[θuwɔ:t]

c. Post-vocalic clusters

1) /-Vθt/ and /-Vθs/

Since Indonesian has no corresponding clusters to /-Vθt/ and /-Vθs/, the learner may find difficulties when learning them. He may drop either the first or the second phoneme. The occurance of final /θ/ in English engreaters the possibility to drop the final /t/ or/s/. However, Indonesian also has final /t/ or /s/ that may cause the learner to recognize their English equivalents more easily than to recognize /θ/. For these reasons, the learner will hear or say [ə:θ] and [breθ] or [ə :t] and [bres] instead of [ə:θt] and [breθs] for the words earthed and breaths.

Besides, Indonesian has the sequence /-VCVC/ in

which /t/ or /s/ occurs finally, instead of the sequence /-VΘt/ or /-VΘs/. When that sequence is transfered to English as a substitute for the clusters, we will hear the learner say earthed and breaths as:

[ə́:ΘΘt] vs. [pátut] patut "proper"

[bréΘəs] vs. [rétas] retas "cut"

The degree of difficulty between /-VΘs/ and /-VΘt/ is not the same, because to produce the former relatively needs a greater effort. The combination of a lisping and a hissing sound as in /-VΘs/ usually creates more problem in producing it, so that the omision of /t/ in /-VΘt/ will be lesser compared to the omision of /s/ in /-VΘs/ , and due to the difficulty in pronouncing /Θ/ itself the learner will more frequently omit /Θ/ rather than omitting /s/, and we will hear him say [bres] instead of [breΘ]. for the word breaths.

2) /-VCΘ/

The absence of the equivalent cluster in Indonesian for English /-VCΘ/ may cause the learner to drop one of the phonemes in the cluster, either the first or the second, or to insert a vowel between them. The insertion of vowel in the cluster can be resulted by the substitution from Indonesian sequence /-VCVC/.

For examples, the words depth, fifth, and health may be pronounced as:

[dep], [deΘ], or [dépəΘ] vs. [dápat] dapat "able"

[fif], [fiΘ], or [fífəΘ] vs. [wáfat] wafat "die"

[hel], [heΘ] or [héləΘ] vs. [hálus] halus' "smooth"

In this type of cluster, however, it is easier to drop the second phoneme, /Θ/, than to produce it because

the first phoneme in the cluster is always the type of phoneme that can occur finally in Indonesian, they are /p, t, m, n, l, f and ŋ/, e.g.

depth	[depθ]	vs.	[hádap]	hadap	"direct"
eighth	[eitθ]	vs.	[pait]	pahit	"bitter"
wormth	[wɔ:mθ]	vs.	[bom]	bom	"bomb"
month	[mʌnθ]	vs.	[aman]	aman	"secured"
health	[helθ]	vs.	[bel]	bel	"bell"
fifth	[fifθ]	vs.	[arif]	arif	"intelligent"
length	[leŋθ]	vs.	[káleŋ]	kaleng	"tin"

Moreover, /θ/ in final position is expelled with a weak puff of breath and laxer tension,so that reducing the learner's readiness to catch this sound when he is to hear it in such clusters.

3) /-VCCθ/

The sequence /-VCCθ/ is found in these four words, sixth [siksθ], seventh [sévəntθ], length [leŋkθ], and twelfth [twelfθ]. Because there is no equivalent sequence in Indonesian, this sequence will be difficult to learn. This cluster engreaters the difficulties in recognizing and producing /θ/.

It is likely not very difficult to recognize orto produce the first phoneme of the cluster because it is one that can occur finally in Indonesian, i.e. /k, n, ŋ or l/, but it will be still a problem with the other two phonemes, so that the first tendency that the learner may make is to omit the two final phonemes and recognizing only the first phoneme, e.g. [sik], [séven], [leŋ] and [twel] . But the omision can be only one of the two final phonemes, especially the third phoneme because this phoneme is added in the cluster as a result of derivational suffix, so that before facing these clusters the learner

has mastered the cluster consisting of the first two phonemes of those clusters, e.g.

six [siks] vs. sixth [siksθ]

twelve [twelv] vs. twelfth [twelfθ]

The phonemes /t/ and /k/ in [seventθ] and [leŋkθ] are actually not essential because there are alternative clusters /-Vnθ/ and /-Vŋθ/ besides /-Vntθ/ and /-Vŋkθ/ which may be easier for the learner when pronouncing the words seventh and length.

Because Indonesian lacks the sequence /-VCCθ/, the learner will produce it with an insertion of a vowel to form a sequence /-VCCVC/, e.g. [siksəθ], [twelfəθ]. Another vowel may be inserted between the first and the second phonemes as a result of the substitution with Indonesian /-VCVCVC/, e.g.

[sikəsəθ] vs. [si-kəset] si keset "the lazy"

[sevənətəθ] vs. [menətas] menetas "hatch"

[twelᵊfəθ] vs. [pəlᵊpas] pelepas "loose"

4. Writing symbols

English phoneme /θ/ is always represented by the symbol th, a combination of two letters each of which always represents a different phoneme in Indonesian, and is never used in a letter cluster to represent any phoneme. This symbol may influence the learner when he is learning /θ/, because he will tend to consider it as representing /t/ and /h/. Pronouncing the successively, however, is a problem for him, and thus he will tend to insert a vowel between them, forming /-tVh/, e.g.

math [mæθ] is pronounced [mætəh]

thing [θiŋ] is pronounced [tihiŋ]

Besides, because th is nearer to the letter t, which symbolizes /t/, than to s, it engreaters the tendency to substitute /θ/ with /t/ rather than with /s/.

Besides representing /θ/, th also repreants /ð/, so t that it can make the learner confuse /θ/ with /ð/, e.g. ether and anthem may be pronounced [i:ðə] and [æ nðəm] instead of [i:θə] and [æ nθm].

D. Voiced Dental Fticative /ð/

1. Indonesian equivalent phoneme

Like the phoneme /θ/, /ð/ is one to which Indonesian does not have the equivalent, so that it becomes a completely new phoneme to learn and causes problems in both hearing and producing it in any position. The learner will substitute one or more phonemes from Indonesian for it. This phoneme is one that is relatively near to it either in the place or in the manner of articulation or in both aspects. The Indonesian phoneme which is nearest to it is /v/, which contrast to it only partially in the place of articulation, while in the manner of articulation they are both voiced slit fricatives. However, this phoneme is rarely substituted for /ð/ and we use /d/ instead, evernthough the latter is less near to /ð/ than the former to /ð/. The first reason for that is the fact that /v/ is a new phoneme in the entire sound system of Indonesian and generally it is its voiceless variant that is used, which is thus practically the same as English /f/. The second reason is that in articulating /v/ the active agent is the lower lip and the tongue is on neutral position, while for /ð/ the active agent is the tongue, especially the tongue-tip.

Indonesian /d/ as in desa "village" has some phonemic features. It is alveolar in contrast to /ð/, which is dental. Whereas to the manner of articulation it is voiced stop in contrast to voiced fricative. Thus Indonesian /d/ and /ð/ are similar only in one aspect, i.e. they are both voiced.

But there is still another similarity in the case of the articulatory organ used to form them. They are both made by using the tip of the tongue as the primary organ. Besides, /d/ is formed on the alveolar ridge, which is relatively near to the teeth, where /ð/ is made. In other words, the tongue-tip and the voicing are the dominant factors for the articulation of /ð/. Because of these reasons, a learner tends to either hear or produce /ð/ as /d/, for examples, the and other are pronounced [də] and [ʌdə] instead of [ðə] and [ʌðə].

2. Allophonic variants

/ð/ has two variants of fully voiced and partially voiced. The latter occurs finally and initially, while the former occurs in inter-vocalic position. These variants may add some difficulties in learning this type of phoneme, in which the learner will recognize initial and final /ð/ as similar to its voiceless cognate, so that he will perceive or produce the words therefore, with or breathe as [θɛəfɔ:], [wiθ] or [bri:θ]. Anotehr learner, however, may not perceive the phoneme in that way, but recognize only the voiced variant in any position, initial, medial and final.

Other variants which are resulted in the different position of the lips due to the adjacent vowel will not give any difficulty or will not influence nor reduces the intelligibility for the production of /ð/ if the learner has mastered the production of English vowels.

3. Distributions

a. Initial, medial and final

The substitution of /ð/ with /d/ may occur in both initial and medial positions, but there is an alternative of /d/ and /t/ in the final position because Indonesian /d/ occurs only initially and medially, and it changes to /t/

in the final position. Thus besides /d/, /t/ may also be used for the substitute of /ð/ in the final position. For examples:

initially : [dɛə] instead of [ðɛə] there

medially : [ledə] " " [leðə] leather

finally : [wid] or [wit] instead of [wið] with

For a base word ended with /ð/, the /ð/ may be still substituted with /t/ instead of /d/ eventhough a suffix has been added to it so that the position of /ð/ becomes medially. For examples:

with [wið] pronounced [wit] - within [witin]

breathe [bri:ð] " [bri:t] - breathing [bri:tiŋ]

soothe [su:ð] " [su:t] - soothing [su:tiŋ]

b. Pre-vocalic clusters

/ð/ never occurs in pre-vocalic clusters.

c. Post-vocalic clusters

The only clusters in which /ð/ occurs are /-Vðd/ and /-Vðz/ as in the words breathed and breathes. These two clusters, however, may be difficult for the learner because besides that /ð/ is a completely new phoneme for him, /d/ ans /z/ never occur finally and there is no such sequence in Indonesian. Instead of final /z/, Indonesian has final /s/, which can be substituted for /z/ in the cluster, while /d/ will be substituted with /t/. Thus we will find the learner say [bri:ð], [bri:ðt] or [bri:ðs].

An insertion of a vowel is also possible, forming the expressions [bri:ðət] and [bri:ðəs].

4. Writing symbols

English /ð/ is always symbolized by th. Since this symbol also represents /θ/, an Indonesian learner of English may confuse /θ/ with /ð/, and he will say [leθə] instead of [leðə] leather.

The second problem resulting from the writing symbol is the possibility to treat it as representing /t/ and /h/, which lead the learner to form [t h] , and thus a learner will say wit h for the word with.

E. Voiceless Alveolar Fricative /s/

1. Indonesian equivalent phoneme

Indonesian has a similar phoneme to English /s/. It is also voiceless grooved fricative, meaning to say that the friction noice for this sound is made by directing a narrow stream of air from the lungs down the grooved tongue. But unlike English /s/, which is alveolar, Indonesian /s/ is dental, so that they differ in the place of articulation. For English /s/ the point of articulation is the alveolar ridge, while for Indonesian /s/ the point of articulation is the lower teeth, to which the tip of the tongue is brought in light contact.[20/]

Another difference lies in the degree of breath and tension. English /s/ is known as fortis, while Indonesian /s/ is lenis, so that it is expelled with a weaker exhalation of breath and a laxer muscular effort.

Inspite of these differences, an Indonesian learner of English will substitute Indonesian /s/ for English /s/, which makes his learning easier. When he hears English /s/ he will easily identify it, either in initial, medial or final position, and he will not recognize the differences that exist between them. When occuring in final position English /s/ is not fortis, especially if preceded by voiceless sound or consonant. However, this weak type of /s/ is not troublesome for the learner because this sound is practically the same as Indonesian /s/, which is always lenis.

The difference in the point of articulation will not cause

20/ Keraf, Gorys. Tatabahasa Indonesia Untuk Sekolah Lanjutan Atas, Ende Flores, Nusa Indah, 1978 p. 39

any important trouble because it is actually still the same as one of the articulatory variants of English /s/, on the articulation of which the tongue is also lowered and brought in light contact with the lower teeth.

2. Allophonic variants

Although English /s/ is considered comprising only one aound, it has some articulatory variants due to the different placement of tongue and lips. As it has just been mentioned, Indonesian /s/ is similar to one of the two articulatory variants of English /s/.

The other articulatory variants exist due to the adjacent vowel used with it. The problem for an Indonesian learner of English therefore, does not lie in the phoneme /s/ itself, but on the mastery of English vowels. If the learner has been able to produce them correctly, he will not make any lip-disturbance in producing English /s/.

The weak variant of English /s/ that occurs finally and preceded by a voiceless sound, as it has just been mentioned, does not trouble the learner because the weaker exhalation of breath and the laxer tension of muscular effort make it more similar to Indonesian /s/.

3. Distributions

a. Initial, medial and final

Since English and Indonesian /s/ occurs in initial, medial and final positions, an Indonesian learner of English will not get troubled when identifying of producing English /s/ in all the three positions.

b. Pre-vocalic clusters

In the pre-vocalic clusters, English /s/ is used in the sequences /sCV-/ and /sCCV-/.

1) /sCV-/

In the sequence /sCV-/ the phonemes /l, j, w, p, t, k, n, m, f and v/ can occur in the C position. This sequence is

not used in Indonesian, but it has /sVCV-/ instead, so that a learner of English will find it difficult to identify or to produce this type of cluster and he will tend to transfer the Indonesian sequence as such for the substitute. A large number of Indonesian words begin with /s/ followed by the vowel /ə/ , and this vowel will be the type of vowel which is inserted in the clusters to form the new sequence.

For examples:

slip [slip] becomes [səlip] vs. [səlip] selip "to shove in"

speak [spi:k] [səpi:k] vs. [səpi] sepi "lonely"

sketch [sket] [səket] vs. [seketika] seketika "at once"

smear [smɛə] [səmɛə] vs. [səmi] semi "bud"

svelte [svelt] [səvelt] vs. [səbal] sebal "peevish"

/j/ and /w/ in the clusters /sjV-/ and /swV-/ may be substituted with /i/ and /u/ forming a sequence resembling Indonesian /siV-/ or /suV-/, e.g.

supreme [sju:pri:m] becomes [siupri:m] vs. [siul] siul "whistle"

swell [swel] becomes [suel] vs. [suap] suap "bribe"

2) /sCCV-/

The same thing as that occuring in the pre-vocalic cluster consisting of two consonants may happen in the pre-vocalic cluster consisting of three consonants. But in the latter case the first phoneme following /s/ is only /p, t, or k/ and for the second consonant after /s/ can be /r, l, j, or w/. Indonesian does not have the corresponding cluster, but it has /s pCV-/, /s tCV-/ and /S kCV-/ that can be transfered as the substitutes for the cluster, for examples:

spread [spred] becomes [səpred] vs. [səprei] sepri "sheet"

strict [strikt] " [sətrikt] vs. [sətrup] setrup "syrup"

screw [skru:] " [səkru:] vs. [səkrup] sekrup "screw"

There is another possibility of inserting one more vowel before the third consonant due to the substitution of Indonesian sequence /sVCVCV-/ for the cluster, for examples:

spread pronounced [səpərɛd] vs. [səpərɛmpat] seperempat "a quarter"

strict " [sətərikt] vs. [ɛətərika] seterika "iron"

screw " [səkəru:] vs. [səkərup] sekerup "screw"

split " [səpəlit] vs. [səpəlit] sepelit "stingy"

In respect to /sCjV-/ and /sCwV-/, the /j/ and /w/ may be substituted with /i/ and /u/, forming sequences resembling Indonesian /s CiV-/ and /s CuV-/, for examples:

spew [spju:] pronounced [səpiu:] vs. [səpion] sepion "spy"

stew [stju:] " [sətiu:] vs. [sətia] setia "loyal"

skew [skju:] " [səkiu:] vs. [səkian] sekian "so far"

squat [skwɔ:t] " [səkuɔ:t] vs. [səkuat] sekuat of the same strength.

c. Post-vocalic clusters

In the post-vocalic clusters /s/ occurs in sequences /-VCs/, /-VCCs/ and /-VCsC/.

1) /-VCs/

The absence of the corresponding cluster to /-VCs/ in Indonesian causes a problem both in hearing and producing it. In this type of cluster the consonant before /s/ can be either one of /p, t, k, n, l, f and θ/. Because of the absence of post-vocalic cluster with /s/ and the presence of the possibility to use /p, t, k, n, l, and f/ finally in Indonesian, the learner tends to omit the final /s/ of the clusters, so that the words lapse, blitz, ex, tense, laughs, false, breaths will be heard or pronounced [lɛp], [blit], [ek], [ten], [lɑ:f], [fɔ:l], [breθ].

Indonesian /s/ occurs finally in the sequence /-VCVs/, which can be transfered to English as the substitute for the cluster /-VCs/. For examples:

lapse	pronounced	[lɑɐpəs]	vs. [ləpas]	lepas	"loose"
blitz	"	[blitəs]	vs. [pətis]	petis	a kind of food
tense	"	[tenəs]	vs. [tenis]	tenis	"tennis"
ex	"	[ekəs]	vs. [pakis]	pakis	"fern"
laughs	"	[lɑ:fəs]	vs. [kapas]	kapas	"cotton"

2) /-VCCs/

The first consonant that can occur in this type of cluster is /s, f, l, p, k, t, n, ŋ, m/ while the consonant in the middle can be either one of /t, θ, p, k or f/, so that we can classify the clasters as follows:

/-V + s, f, l, p, k, n + ts/

/-V + p, l, n, t, f + θs/

/-V + s, l, m + ps/

/-V + s, l, ŋ + ks/

/-V + l, m + fs/

The first phoneme of the clasters is always one that also occurs finally in both English and Indonesian. This possibility makes ease for the learner to recognize as well as to produce it, but he will still find a problem with the other two phonemes or with the claster itself. As a result, when hearing a cluster as such he may not recognize the final two phonemes, e.g. the words crypts, depths and acts may be heard [krip], [dep] ,[æk] .

It is also possible that when hearing those clusters the learner is merely able to identify the first and the final phonemes because the middle one usually becomes more difficult than the other two, either to perceive or to produce, due toits position. Thus we would hear the learner

say or find him perceive those three words [krips], [deps], [æks]. Moreover, one of the phonemes that occur in the middle position is /θ/, one that is completely new and practically difficult for the learner.

However, a learner may be able to recognize or produce the first two phonemes of the cluster more easily, especially when the final phoneme is added as a result of inflectional suffix, so that the learner has mastered the first two phonemes before he has to learn this cluster. For examples:

months pronounced [mʌnθ] vs. month [mʌnθ]

healths " [helθ] vs. health [helθ]

acts " [ækt] vs. act [ækt]

Instead of /-VCCs/, Indonesian has the sequence /-VCCVs/ that may be transfered to English as the substitute for the cluster. For examples:

[pænts] pants pronounced [pæntəs] vs. pantes [pantəs]

[θʌmps] thumps " [θʌmpəs] vs. tumpas [tumpas]

[nimfs] nymphs " [nimfəs] vs. mampus [mampus]

3) /-VCsC/

This type of cluster is found in the following patterns,

/-V + l, n, k, d, t, p, + st/

/-V + k + sθ/

An omision of one or two phonemes constituting this type of cluster may happen, but the final phoneme may be most frequently omitted because it is added in the cluster as a result of inflectional suffix. For examples:

danced [dʌnst] pronounced [dʌn] or [dʌns]

lapsed [læpst] " [læp] or [læps]

sixth [siksθ] " [sik] or [siks]

An insertion of a short vowel before the final phoneme may happen, especially in the cluster /-Vksθ/ due to the substitution with Indonesian sequence /-VCCVC/, e.g.

sixth [siksθ] pronounced [siksəθ] vs. ekses "access"

danced [dʌnst] " [dʌnsət] vs. bangsat "rascal"

4) /-VCCCC/

Besides the omission of one or more phonemes from the cluster /-VCCCC/, a substitution may happen with various sequences such as /-VCCVCC/, /-VCCVCVC/ and /-VVCVCVCVC/ for examples:

texts [teksts] becomes [teks], [tekst], [teksəts]

tenths [tentθs] " [tent], [tentθ], [tentəθəs]

lengths leŋkθs " [leŋθ], [leŋkθ] , [leŋkəθəs]

twelfths twelfθs " [twelf], [twelfθ] , [tweləfəθəs]

4. Writing symbols

Indonesian /s/ is always represented by s, e.g. sisi "side". English /s/ is represented by s, ss, c, sc, -ce, x, e.g. so, pass nice, science, axe. S would not inluence the learning of English /s/ because it is the common symbol for both English and Indonesian /s/. C in Indonesian symbolizes /tʃ/ such as in kaca "glass", x symbolizes /ks/ and is used only in loan words such as in xenon, and there is no letter cluster to represent Indonesian /s/. These differences of writing symbol can cause some problems if the learner transfer the spelling pronunciation of Indonesian to English, so that for examples we will find a learner treat c, x, sc, -ce as representing /t /, /ks/, /st / and /t V/, e.g. science and axe are pronounced [stʃiənt] and [əeksə].

F. Voiced Alveolar Fricative /z/

1. Indonesian equivalent phoneme

Indonesian has a similar phoneme to English /z/. Indonesian

/z/ is the voiced cognate of /s/, which is a grooved dental fricative. It is articulated with the tongue-tip lowered behind the lower teeth and in light contact with them. Many Indonesian speakers, however, use alveolar / z/[21] and thus the same as English /z/, which is also an alveolar fricative.

The other difference between English and Indonesian /z/ lies in the degree of breath and tension involved in the articulation. English /z/ is lenis, while Indonesian /z/ is fortis.

2. Allophonic variants

Indonesian /z/ has two variants of fully voiced z and a partially voiced [z̥]. However, since this phoneme is new and not yet established Indonesian, only a few speakers use the voiced variant, and many others use the partially variant in all positions, namely initial and medial ones. For examples:

zaman "era" pronounced [z̥aman]
mazmur "psalm" " [mazmur]
suzuki motorbike pronounced [suzuki]

Initial and final /z/ is partially voiced in English, while intervocalic /z/ is always fully voiced. Due to the influence of Indonesian /s/, an Indonesian learner of English will tend to use the partially voiced variant in any position. English voiceless [z̥], however, is not exactly the same as Indonesian [z̥]; the former is lenis, while the latter is fortis, thus English [z̥] is practically the same as Indonesian s .

The position of the lips and tongue for both English and Indonesian /z/ depends on the adjacent vowel. The lips in producing this sound may be spread, rouned or in neutral position, e.g.

	E/z/	I/z/	
spread :	Xavier [z ʌ viə]	zenggi [z ẽggi]	"Ethiopean"

21/ See footnote 9

rounded : zoo [zu:] zulmat [zulmat] "darkness"

neutral : zip [zip] zaman [zaman] "era"

There is an alternative which is often used in the place of Indonesian /z/, i.e. /d /. For examples:

zinah "adultery" [zinah] , [dzinah]

zaman "era" [zaman] , [dzaman]

ziarah "pilgrimage" [ziarah] ,[dziarah]

As a result of this alternative when learning English a learner may substitute /dz/ for /z/. For examples:

Zürich [zuərih] pronounced [dzuərih]

zero [ziərou] pronounced [dzirou]

3. Distributions

a. Initial, medial and final

Indonesian /z/ is used mainly in loan words from Arabic and occurs only initially and medially.[22/] English /z/, on the other hand, occurs in initial, medial and final positions.

	E/z/	I/z/
Initially:	zoo, zip	zaman, zat
Medially :	lazy, easy	Marzuki, mazab
Finally :	gaze, does	-

The absence of final /z/ in Indonesian engreaters the difficulty in recognizing as well as producing English /z/ in the final position, and the learner will substitute it with one or more of the possible substitutes from Indonesian that also occurs finally, for example /s/. /s/ would be the most frequently used as the substitute because this phoneme is also the nearest to /z/ both in the place and manner of articulation.

The habit of using Indonesian [z] initially and medially

22/ Poerwodarminto, W.J.S., Kamus Umum Bahasa Indonesia, Jakarta, PN. Balai Pustaka 1976

can cause the learner to recognize as well as to produce English /z/ as Indonesian [z], which is practically the same as English /s/. For examples:

zebra [zi:brə] pronounced [si:brə]

lazy [leizi] " [leisi]

gaze [geiz] " [geis]

b. Pre-vocalic clusters

The pre-vocalic clusters in which English /z/ occurs are mainly /zlV-/, zjV-/ and /zwV-/, zloty, zeugma and zwieback. Due to the lack of the corresponding clusters in Indonesian, a learner will find it difficult to learn them. When hearing /zCV-/ he would mishear either one of the two phonemes, so that the three words will be heard [zu:gmə], [zi:bæk] and [zɔ:ti] instead of [zju:gmə], [zwi:bæk] and [zlɔ:ti].

Instead of the clusters, Indonesian has the sequences /CVCV-/ and /CVV-/ that may be transfered as the substitutes. For examples:

zloty pronounced [zəlɔ:ti] vs. [selot] selot

zeugma " [ziu:mə] vs. [ziarah] ziarah

zwieback " [zui:bæk] vs. [zuadah] zuadah

c. Post-vocalic clusters

The post-vocalic clusters in which English /z/ occurs are /-VCz/, /-zC/ and /-VCCz/.

1) /-VCz/ and /-VzC/

Since these post-vocalic clusters occur only in English, never in Indonesian, an Indonesian learner of English finds them difficult to learn. First of all, it will be difficult for him to recognize as well as to produce either one of the two phonemes besides that he

perceives /z/ as /s/. He will easily recognize the first phoneme in the cluster /-VCz/ because Indonesian lacks final /z/ and the phoneme that can occur in the C position is the type of phoneme that occurs finally in Indonesian, except /d/ and /g/ that change to /t/ and /k/, /v/ as well as /ð/. Thus a learner will hear or say the words cabs, adze, figs, rooms, bins, sings, balls, lives, breaths as [kæp], [æd], [fik], [ru:m], [bin], [siŋ], [bɔ:l], [lif], and [bri:ð] .

In respect to /-VzC/, it is easier for the learner to omit the second phoneme because it is present in the cluster as a result of inflectional suffix, so that the learner can be supposed to have mastered the first phoneme as a final /z/ before he has to learn the cluster. For examples:

praise [preiz] vs. praised [preizd]

raise [reiz] vs. raised [reizd]

There can be an insertion of a vowel between the phonemes due to the transfer of Indonesian sequence /-VCVC/ to English, forming expressions such as:

[kæbəz] cabs vs. [kibas] kibas "to wag"

[ædəz] adze vs. [pədas] pedas "hot"

[figəz] figs vs. [tegas] tegas "decided"

[reizəd] raised vs. [pusat] pusat "centre"

2) /-VCCz/

Since Indonesian lacks this type of cluster, when hearing or producing it the learner will drop one or two of the three phonemes that constitute the cluster, so that the words mends, bulbs, helms will be pronounced [menz], [bʌlb], [bʌlz], [helm], [hemz], etc. instead of [mendz], [bʌlbz], [helmz] .

Instead of /-VCCz/, Indonesian has the sequences /-VCCVC/ and /-VCVCVC/ that may be substituted for the cluster. For examples:

mends pronounced [mendəz] vs. [tindas] tindas

bulbs " [bʌlɛbɛz] vs. [bɛlibis] belibis

helms " [helɛməz] vs. [məlɛmas] melemas

4. Writing systems

Indonesian /z/ is always symbolized by z, while English /z/ is represented by s, ss, z, zz and x.

E/z/			I/z/		
z	-	zoo, zip	z	-	zat, zam[illegible], mazab
s	-	goes, does			
zz	-	dizzy			
ss	-	scissors			
x	-	exact			

Z does not cause any problem because it is the common symbol of /z/ both in English and Indonesian. The other symbols, however, will be troublesome for the learner, especially if he considers s and x as representing /s/ and /ks/ and ss as well as zz as representing a long /s/ and a long /z/. Thus we will hear some wrong expressions such as:

goes [gouz] pronounced [gous]

exact [igzækt] " [iksækt]

scissors [sizəz] " [sisəz]

dizzy [dizi] " [dizzi]

G. Voicless Palato-alveolar Fricative /ʃ/

1. Indonesian equivalent phoneme

Indonesian has a similar phoneme to English /ʃ/, which is also a voiceless palato-alveolar fricative, and thus it

is basically the same as English /ʃ/ both in the place and manner of articulation. /ʃ/ is articulated near the hard-palate posterior to the alveolar ridge and the active articulator is the tongue. The difference between Indonesian /ʃ/ and English /ʃ/ lies in the raising of the tongue-tip and the degree of breath and tension involved in the articulation. In articulating Indonesian /ʃ/ the tip of the tongue is rarely raised as high as that when articulating English /ʃ/, and it is situated a little bit nearer to the alveolar ridge. As to the degree of breath and tension, Indonesian /ʃ/ is expelled with a weaker force and laxer muscular effort. English /ʃ/ is fortis while the Indonesian equivalent is lenis.

Despite the differences that exist between them, Indonesian /ʃ/ can be transfered to English when an Indonesian speaker is learning English. Many Indonesian speakers, however, treat sy that represents Indonesian /ʃ/ as symbolizing the combination of /s/ and /j/, and thus /sj/ becomes an alternative for /ʃ/ itself. Instead of /sj/, many other speakers also use /s/ as the other substitute for /ʃ/.

For examples:

syarat [ʃárat] "condition" - [sjarat], [sárat]

asyik [áʃik] "absorbed" - [ásik]

syukur [ʃúkur] "thank" - [sjukur], [súkur]

masyarakat [maʃárakat] "society" - [masjarakat] or [masárakat]

It is not impossible. therefore, that a learner transfer either /s/ or /sj/ to English as the substitutes for /ʃ/. Moreover, according to the manner of articulation /s/ is voiceless grooved fricative, thus the same as /ʃ/, eventhough in respect to the place of articulation it is dental in

contrast to palato-alveolar. For examples:

shoe [ʃu:] pronounced [su:] or [sju:]

assure [əʃuə] " [əsuə] or [əsjuə]

mansion [mæn ʃən] pronounced [mæ nsən] or [mænsjən]

sugar [ʃu:gə] pronounced [su:gə] or [sju:gə]

2. Allophonic variants

Both English and Indonesian /ʃ/ is essentially considered as comprising only one sound. However, there are some unimportant articulatory variants. They depend on the degree of raising of the tongue-tip and the rounding of the lips, which happen due to the influence of the adjacent vowel. English /ʃ/ is usually pronounced with the tongue-tip raised toward the back part of the alveolar ridge, but some speakers articulate it with the tongue-tip lowered and brought behind the lower teeth.

3. Distributions

a. Initial, medial and final

English /ʃ/ occurs in initial, medial and final positions. Indonesian /ʃ/ rarely occurs in the final position. For examples:

Initially : sharp [ʃɑ:p] syarat [ʃarat]

Medially : assure [əʃuə] isyarat [iʃarat]

Finally : rush [rʌʃ] -

The substitution of English / / with /s/ or /sj/ may occur in all the three positions except finally for /sj/ because /sj/ never occurs finally in Indonesian. For examples: sharp pronounced [sɑ:p] or [sjɑ:p]

assure " [əsuə] or [əsjuə]

rush " [rʌs]

b. Pre-vocalic clusters

The only pre-vocalic cluster in which /ʃ/ occurs in English is /ʃrV-/ as in the words shrink [ʃriŋk] and shrimp [ʃrimp] . Indonesian /ʃ/ never occurs in any pre-vocalic cluster. Instead, Indonesian has the sequence / VrV-/ or /sVrV-/ such as in syarat, serin or serem. When hearing this cluster, therefore, the learner may perceive it as / VrV-/, or /sVrV-/.

shrink pronounced [ʃərikk] or [sərikk]

shrimp " [ʃərimp] or [sərimp]

c. Post-vocalic clusters

The post-vocalic clusters in which /ʃ/ can occur in English are only /-VlʃV/ and /-VʃtV/, welch and pushed, but there is none in Indonesian. Instead, Indonesian has final /l/ and /s/, so that when hearing those clusters the learner will tend to recognize merely the first phoneme and thus perceiving welch and pushed as [wel] and [puʃ] or [pus] . Besides, the /t/ in /-VʃtV/ is present as a result of inlectional suffix, which practically engreaters the tendency to drop the /t/ rather than dropping /ʃ/.

An insertion of a vowel may happen between the phonemes to form a sequence resembling Indonesian /-VCVC/. For examples:

welch pronounced [weləʃ] vs. [malas] malas

pushed " [puʃət] vs. [pusat] pusat

4. Writing symbols

Indonesian /ʃ/ is only represented by sy, while English /ʃ/ is represented by sh, ch, sch, s, ss, -ti-, ce and x. For examples:

E/ /		I/ /	
sh	: shoe	sy	: syarat, masyarakat
ch	: machine		
sch	: schedule		
ss	: assure		
s	: sure		
ti	: nation		

These differences of writing symbols may interfere with the learning of English /ʃ/, especially if the learner treats the symbols of English /ʃ/ as representing phonemes other than /ʃ/, e.g. s and ss /s/, ch /x/, sch /sx/, -ti- /ti/, ce /t /, x /ks/. Because of this interference we may hear the learner say [məxi:n], [suə], [ə suə], [sxədju:l] for the words machine, sure, assure and schedule instead of [məʃi:n] , [ʃuə], [əʃuə] , [ʃ ədju:l] .

H. Voiced Palato-alveolar Fricative /ʒ/

1. Indonesian equivalent phoneme

Indonesian lacks the equivalent to English /ʒ/ so that it becames a completely new phoneme for an Indonesian learner of English, and provides difficulties both in perceiving and producing it in any position. When learning English the learner will transfer one or more phonemes from Indonesian as the substitute. This phoneme is mainly /s/, /ʃ/ or /z/ because these three phonemes can be considered as near to /ʒ/. /ʒ/ contrasts to /ʃ/ in the voicing and tension as well as in the degree of breath, but both are grooved palato-alveolar fricatives as /ʒ/ is the voiced cognate of /ʃ/. /ʒ/ contrasts with /s/ in the voicing, place of articulation, degree of breath and tension, and both are grooved fricatives. /ʒ/ contrasts with /z/ merely in the place of articulation; the

former is palato-alveolar, while the latter is alveolar.

The substitution of English /ʒ/ with English /s/, /ʃ/ and /z/ is also possible, especially for those who have mastered those phonemes. /ʒ/ is practically more difficult than the three phonemes, and when it is substituted by them the articulatory distinction that exists between them is reduced rather than when it is substituted by the equivalents of the three phonemes.

2. Allophonic variants

When occuring in intervocalic position English /ʒ/ is always fully voiced. Partially voiceless variant [ʒ̥] occurs in the initial and final positions. This variant can make it more similar to the voiceless cognate and engreaters the possibility to use /ʃ/ as the substitute, so that initial and final /ʒ/ will be easily recognized as /ʃ/, the same as the way the learner will produce it.

Some articulatory variants of /ʒ/ exist due to the difference raising of the tongue-tip and the rounding of the lips that is influenced by the adjacent vowel. The position of the tongue and the lips for /ʒ/ approximates the position required for the adjacent vowel used with it. For examples, in uttering /ʒ/ in [ru:ʒ] rouge the lips are more rounded than in uttering the same phoneme in [kæmufla:ʒ] camouflage. However, the learner will not find any problem with his lip-position if he has mastered the production of the vowels which are used with this phoneme.

3. Distributions

a. Initial, medial and final

/ʒ/ occurs initially, medially and finally so that the substitution of it can happen in initial, medial and final positions too. For examples:

Initially: usual [jú:ʒuəl] becomes [ju:suəl] , [ju:ʃuəl] or [ju:zuəl]

Medially : measure [méʒə] " [méʃə], [mesə]or[mezə]

Finally : rouge [ru:ʒ] " [ru:ʃ] ,[ru:s] or[ru:z]

In final position /ʒ/ has an alternative pronunciation with /dʒ/, e.g. prestige [presti:ʒ] or [presti:dʒ]

b. Pre-vocalic clusters

This phoneme does not occur in pre-vocalic cluster.

c. Post-vocalic clusters

The only cluster in which /ʒ/ can occur is /-Vʒd/, e.g. [ru:ʒd] rouged and [kə́mufla:ʒd] camouflaged . When hearing this cluster, besides substituting /ʒ/ with a phoneme either from English or Indonesian, the learner may misshear the second phoneme, especially because such consonant sequence is not found in Indonesian and the phoneme /d/ is present in the cluster as a result of affixation. Thus the two words will be easily recognized or produced as [ru:ʒ], [ru:sd], [ru:zd], [kəmufla:ʒ], [kəmufla:sd], [kəmufla:zd] etc.

Another kind of distortion may be made by inserting a vowel between the phonemes, forming a sequence /-VCVC/, which also occurs in Indonesian. For examples:

[kə́mufla:ʒəd] vs. [dáhʃat] dahsyat "enormous"

[ru:ʒəd] vs. [kúsut] kusut "rumpled"

4. Writing symbols

/ʒ/ is represented by s, z, ge, -si-, e.g. measure, seizure, prestige, confusion. Each of these symbols represents a different sound or a combination of sounds in Indonesian, so that the learner may find some pronunciation problems. For examples, gigolo [ʒí:gəlou] , rouge [ru:ʒ] and confusion [kənfjú:ʃən] are pronounced [gigolo] [ru:g] and [kənfjusən].

I. Voiceless Glottal Fricative /h/

1. Indonesian equivalent phoneme

Indonesian has a similar phoneme to English /h/. Both English and Indonesian /h/ is voiceless glottal fricative. They are articulated by narrowing the vocal cords in such a way that producing audible friction, but not vibration. The difference between English and Indonesian /h/ lies in the degree of breath and muscular effort involved in the articulation. English /h/ is fortis, while Indonesian /h/ is lenis. Thus English /h/ is expelled with a stronger exhalation of breath and a greater tension of muscle. This difference, however, will not cause any serious problem for the learner, and the existence of Indonesian /h/ surely makes the learning easier because the learner can transfer it to English without any difficulty.

2. Allophonic variants

Some speakers use partially voiced /h/ medially between voiced sounds in English, but this variant will not cause any serious problem either because this variant is only an alternative for the voiceless or the principle member of this phoneme.

The position of the lips and tongue for both English and Indonesian /h/ is subject to the adjacent vowel. There are as many articulatory variants of /h/ as there are vowels. For the purpose of making the perfect position of lips and tongue, therefore, it needs the mastery on English vowels used with this phoneme.

3. Distributions

a. Initial, medial and final

English /h/ occurs only initially and mediallt, but Indonesian /h/ also occurs in the final position besides

initially and medially. This difference will not cause any problem for the learner because it will not be necessary for him to learn final /h/ in English.

b. Pre-vocalic clusters

Indonesian /h/ never occurs in clusters, but the only cluster in which /h/ occurs in English is merely /hjV-/, which is used with the vowel /u:/, e.g. [hju:dʒ] huge and [hju:mən] human. Eventhough /h/ itself is not a problem for the learner, this cluster may be still a problem for him because there is no such sequence in Indonesian. Due to the lack of the similar cluster, he will tend to misshear or missproduce either one of the two phonemes that constitute the cluater. Thus he will recognize or produce the words huge and human as [ju:dʒ] and [ju:mən] or [hu:dʒ] and [hu:mən] .

Besides, Indonesian has the sequence /hVV-/ that can be transfered to English as the substitute for the cluster. In order to for this sequence the learner will substitute /j/ with /i/ because /i/ is the vowel from which the articulatory organs start when pronouncing /j/. For examples:

huge pronounced [hiu:dʒ] vs. [hiu] hiu "shark"

human " [hiumən] vs. [hias] hias "ornament"

4. Writing systems

English /h/ is represented by h and wh, while Indonesian /h/ is only represented by h, e.g.

E/h/		I/h/	
h	: he, how, hand	h	: hari, haus
wh	: who, whom		

Since Indonesian has the symbol w, whict represents /w/, the learner will tend to treat wh as representing a combination of two phonemes. However, he will still find a

problem with /wh/ because such a combination of phonemes never occurs in Indonesian, and thus he will insert a short vowel between them, e.g.

who pronounced [wuhu:] instead of [hu:]

whom " [wuhu:m] " " [hu:m]

Besides this difference, Indonesian h always sounds, while English h is sometimes silent or mute.

a. It is mute in some certain words:

hour	[auə]	exhaust	[igzɔ:st]
honest	[ɒnist]	exhilirate	[igzilə reit]
heir	[eə]	exhibit	[igzibit]
honour	[ɒnə]	vehicle	[vi:ikəl]

b. It is mute when it occurs between a strong and a weak vowel, e.g. annihilate [ənaiəleit]

nihilsm [naiilizm]

c. It is mute when it occurs in the beginning of the second part of a compound word, e.g.

shepherd [ʃepəd] forehead [fɔrid]

d. It is mute in some words when they occur in unstressed position in a sentence, i.e. has [əz], had [əd], her [ə], him [im].

As a result of these differences, the learner may make some clumsy expressions in which he produces /h/ where h should be mute, for examples:

honest	pronounced	[hɒnist]
exhibit	"	[igzhibit]
shepherd	"	[ʃephəd]
forehead	"	[fɔrhed]

C H A P T E R IV

THE CLASSIFICATION OF PROBLEMS

Understanding the problems in learning English sounds is important before one tries to solve the learner's difficulties. The comparative analysis of English and Indonesian fricatives in the preceding chapter has shown the possible problems that an Indonesian learner of English is faced with when he is learning English fricatives. The essential reason for those problems is that English uses sound system different from that of Indonesian. When transfering some Indonesian sounds to English the differences that exist between the two languages are not recognized by the learner, both in hearing and in producing the sounds, so that reducing the intelligibility of the utterance.

The comparative analysis also shows that each of the nine fricatives of English is capable for producing problems, and these problems can be similar or of the same type, or different. In order to make a more organized view of the problems and for the sake of teaching purposes, these problems deserve classification.

The following is the classification of problems in learning English fricatives committed by an Indonesian learner of English. The classification is based on the assumption that the problems are resulted from the differences of English and Indonesian sound systems as well as the writing symbols that represent them.

1. The absence of Indonesian equivalents to some English phonemes,

   There are three phonemes to which Indonesian does not have the equivalents, they are /θ/, /ð/ and /ʒ/. Because of the lack of the three phonemes in Indonesian the learner is not able to perceive as well as to produce them radily, and he will tend to substitute them with one or more phonemes from Indonesian, e.g.

   /θ/ is substituted by /t/ and /s/

/ð/ is substituted by /d/

/ʒ/ is substituted by /s/, /ʃ/ and /z/

2. Problems of differences in phonetic features

For Indonesian speakers who use dental /s/ and /z/, English /s/ and /z/ can be a problem because they are usually alveolar instead of dental.

On the aspect of tension, English fricatives always contrast with their equivalents in Indonesian.

3. Problems of variants

English and Indonesian voiceless fricatives essentially comprise one sound for each, but the voiced fricatives always have two variants of fully voiced and partially voiced. The voiced variant occurs in inter-vocalic position, while the other variant occurs in initial and final positions. However, Indonesian speakers usually use the voiceless variant in any position. Voiced fricatives are not yet well established in Indonesian. As a consequence, inter-vocalic /v/ and /z/ always causes problems. For this reason, they will they will substitute the voiceless cognates for the two voiced sounds.

The difference in voicing combined with the difference in tension creates a greater problem in which partially voiced variant of English fricative is easily identified to be the same as the voiceless cognate to the voiced equivalent in Indonesian,

E [v̥] (lenis) is the same as I [f] (lenis)

E [z̥] (lenis) is the same as I [s] (lenis)

English fricatives have some articulatory variants resulted from the influence of adjacent vowel. Indonesian fricatives have the same type of variants, but the degree of lip-rounding or spreading is not the same. This difference can make some distortion in the learner's utterance unless he has mastered the

the production of English vowels that are used with the given phoneme.

4. Problems from alternative pronunciations

Sometimes, an Indonesian speaker uses some alternative pronunciations for /ʃ/ and /z/, e.g.

syarat [ʃárat], [sárat] , [sjarat]

zinah [zinah], [ʤinah]

As a result of these alternative, the learner may substitutes E / / with /sj/ besides /s/, and /z/ with / / besides /s/.

shoes [ʃu:z] pronounced [su:z] or [sju:z]

Zimbabwe [zimbá:bwi] pronouneed[ʤimbá:bwi]

5. Problems of distributions

a. Initial, medial and final positions

Essentially, the occurance of English fricatives in initial and medial positions is not troublesome for the learner. Final position for /v/ and /z/, however, may create problems because Indonesian does not have final /v/ and final /z/. The learner will practically substitute them with the voiceless cognate, /f/ and /s/.

b. Consonant clusters

Pre-vocalic clusters that exist in Indonesian are really new in the entire sound system of this language, and are found only in some loan words, especially words from English.[21] Among those clusters, only /frV-/, /flV-/ /srV-/ and /swV-/ in which a fricative occurs. Indonesian only has one post-vocalic cluster, and is found only in the English loan word such as eks "ex", seks "sex".

Because both pre-vocalic and post-vocalic clusters are not familiar for an Indonesian learner, they become a source

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21. Departemen Pendidikan dan Kebudayaan, Pusat Pembinaan dan Pengembangan Bahasa, Pedoman Umum Pembentukan Istilah, th. 1 No. 4, 1976

of many difficulties in pronunciation. When hearing or producing them, the learner tend to omit either one or two phonemes that constitutes the cluster. In post-vocalic cluster, the omitted phoneme is usually the final one, especially when its occurance is resulted from inflectional endings that exist in the plural form of nouns, in the third singular form of verb and in the preterite form of verb.[22/]

An insertion of one vowel or two between the phonemes is another type of distortion that a learner may make due to the substitution of some sequences from Indonesian to English. Instead of inserting the vowel, the learner may substitute it for a given phoneme in the cluster. This vowel is /i/ for substituting /j/ or /u/ for /w/. It is /i/ or /u/ that is used because they are the vowels from which the articulatory organs start when pronouncing /j/ and /w/.

The following is the type of substitution that the learner may make for the clusters,

1) /CCV-/ substituted by /CVCV-/

fly [flai] becomes [fəlai]

thrill [θril] " [θəril]

shrimp [ʃrimp] " [ʃərimp]

2)/CCV-/ substituted by /CVV-/

few [fju:] becomes [fiu:]

quail [kweil] " [kueil]

view [vju:] " [viu:]

3)/CCCV-/ substituted by /CVCCV-/

spray [sprei] becomes [səprei]

22/ Fries, Charles. Teaching and Learning English as a Foreign Language, Ann Arbor - The University of Mechigan Press 1970 p. 18

screw [skru:] becomes [səkru:]

strew [stru:] " [sətru:]

4) /CCCV-/ substituted by /CVCVCV-/

screw [skru:] becomes [səkəru:]

strict [strikt] " [sətərikt]

split [split] " [səpəlit]

5) /CCV-/ substituted by /CVCVV-/

squat [skwɔ:t] becomes [səkuɔ:t]

squeal [skwi:l] " [səkui:l]

stew [stju:] " [sətiu:]

6) /-VCC/ substituted by /-VCVC/

health [helθ] becomes [he lᵊθ]

solve [sɒlv] " [sɒlᵊv]

coughs [kʌfs] " [kʌfəs]

7) /-VCCC/ substituted by /-VCCVC/

pants [pæ̀nts] becomes [pæ̀ntəs]

thumps [θʌmps] " [θʌmpəs]

nymphs [nimfs] " [nimfəs]

8) /-VCCC/ substituted by /-VCVCVC/

bulbs [bʌlbz] becomes [bʌlᵊbəz]

helms [helmz] " [helᵊməz]

9) /-VCCCC/ substituted by /-VCCVCVC/

sixths [siksθs] becomes [siksəθəs]

tenths [tenθs] " [tentəθəs]

lengths [leŋkθs] " [leŋkᵊθəs]

10) /-VCCCC/ substituted by /-VCVCVCVC/

twelfths [twelfθs] becomes [twelᵊfəθəs]

6. Problems from writing symbols

Differences in the representation of sounds by the unit of symbol become a source of problems in pronunciation. English and Indonesian phonemes are represented by the similar type

of symbol, but the unit of the symbol representing each phoneme is different for both English and Indonesian. English sounds are represented arbitrarily, while Indonesian sounds are represented more consistently. In English, a unit of symbol may represent more than one sound, and the sound may be represented by more than one symbol. In Indonesian, one sound is almost regularly represented by one symbol which is different from that symbolizing other sounds. Thus the writing representation for each fricative of English can create a negative interferance to the learning of sound, especially if the learners consider each letter as symbolizing one sound like the way an Indonesian sound is symbolized.

a. E /f/ is symbolized by f, ff, ph and gh

A learner may find a problem with this phoneme whenever he finds it represented by ph or gh. He will say /pVh/ and /gVh/ instead of /f/. Even ff may be considered as a lengthened /f/.

b. E /v/ is symbolized by v, f, ph

A learner may find a problem with this phoneme when he finds it represented by f or ph. In stead of producing /v/ he will utter /f/ because both f and ph represent /f/ which is more familier to him than /v/.

c. /θ/ and /ð/, symbolized by th

A learner may confuse /θ/ with /ð/ because of the interferance from the symbol that represents them. They are both symbolized by th.

Sometimes this symbol is considered as representing neither /θ/ nor /ð/ but /tVh/ because Indonesian does not have /θ/ and /ð/.

d. E /s/, symbolized by s, ss, c, sc, x

A learner will find a problem with this phoneme when he finds it represented by ss, c, sc or x in a word, in

which he may treat these symbols as representing a long /s/, /t /, /st / and /k/ instead of /s/.

e. E /z/ symbolized by s, ss, z, zz and x

S, ss and x will cause a problem in learning /z/ because they also represent /s/. Ss and zz may also be considered as representing a long /s/ or a long /z/.

f. E /ʃ/ symbolized by sh, ch, sch, s or ss before u, -ti-, -si-, -sci, -ci-, -ce-.

These symbols are very complicated and troublesome for the learner because there are many symbols and none is similar to the symbol of Indonesian /ʃ/, i.e. sy. Sh may be the easiest to learn because it is the commonist symbol for English /ʃ/. The others may be treated as representing sounds other than /ʃ/, e.g. s or ss before u /su/, ch /x/, sch /sx/, -ti- /ti/, -si- /si/, -ci- /t i/, -sci /at i/.

g. /ʒ/ symbolized by s, z before u, -si- and ge

All these symbols may interfere with the learning of /ʒ/ because Indonesian does not have the corresponding phoneme to /ʒ/. They may be considered as representing /su/, /zu/, /si/ and /g / instead of /ʒ/. Besides, these symbols also represent sounds other than /ʒ/.

h. E /h/ symbolized by h and wh

H can be troublesome for the learner whenever it is mute in a word as Indonesian h always sounds. As a result, the learner will always tend to pronounce h. Wh may cause a negative interference to the sound because it may be pronounced /wVh/ instead ov /h/, e.g. whom hu:m is pronounced wuhu:m .

C H A P T E R V

HOW TO OVERCOME THE PROBLEMS IN LEARNING ENGLISH FRICATIVES

In this paper the writer intends to present some suggestions for the method to overcome the problems committed by an Indonesian learner of English in learning English fricatives. In order to give an accurate description on the solution for the problems, it would need to know the general principles of teaching pronunciation. This paper will, therefore, be devided into two parts. The first part presents some principles for teaching pronunciation, and the second is the techniques to overcome the problems.

A. Some Principles for Teaching Pronunciation

Teaching pronunciation is training the students to use the sound system of a language in speaking and listening.[23] It is not to talk about the sounds, but to use them in utterances for communication.

An Indonesian learner of English should be taught English pronunciation because merely hearing English speech sounds does not result automatically in good pronunciation. English has its own pronunciation system which is very much different from that of Indonesian, and in learning pronunciation of English a learner tends to use the sound system of Indonesian in English, as a tendency as such is natural in learning a foreign language.[24]

In order to achieve the goal, the following is some principles that a teacher may bear in mind to help him teach pronunciation.

23/ Lado, Robert. Language teaching, A Scientific Approach; New York: McGraw Hill, Inc. 1964 p. 70

24/ Lado, Robert. Linguistics Across Cultures, Applied Lingistics for Language Teachers; Ann Arbor - The University of Michigan Press 1957 p. 11

1. Teaching pronunciation is a matter of patience and continuous work

The acquisation of habit to use foreign sounds does not take place automatically by itself.A learner does not acquire the habits of English pronunciation all at once. A teacher should not expect his learner to overcome a problem once after he has explained and practiced it, because the learner needs to learn new pronunciation habits to a high degree of automaticity with attention on message, not on the sounds.[25] The acquisition of a near-native articulation by the learner creates one of the most difficult problems for the teacher, and this problem is of greater or less importance depending on the degree of difference and the nature of difference between the sound system of the language to be learned and the native language.[26] In respect to teaching English pronunciation, the problem becomes significant because English sound system is very much different from that of Indonesian.

2. Teaching the problems

It would be very pedantic to teach everything about the sound of the language. In learning English sound system the learner transfers the sound system of Indonesian to English. Some elements and patterns may function well and do not have to be taught. The moment the learner observes them, he can use them. It is not necessary, for example, to teach what is English /f/ and how it is produced because Indonesian /f/ functions well to be used in the place of English /f/. The materials, therefore, should be selected so that the teacher

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25/ Lado, Robert. Language Teaching; A scientific Approach. New York, McGraw Hill, Inc. 1964 p. 76

26/ River, Charles Van and Irvin, John V. Voice and Articulation. Englewood Cliffs, N.J.Prentice-Hall, Inc. 1958 p. 68

does not teach everything about the sounds, but only the problems or one which contains problems for the learner. It would even become pedantic too when in dealing with the problems the teacher describes everything as if the learner is starting from scratch.[27]

3. Teaching the problems in the graded way

We cannot teach the sound systems all at once, and we should start with the easiest problem and gradually move to the more difficult.[28] It is necessary, therefore, in respect to teaching English fricatives, to know the degree of difficulty of the problems. For this purpose, the teacher needs to know the similarities as well as the differences that exist in English and Indonesian fricatives because there exists the key for the nature of problems which can make the learning easier or difficult.[29]

In learning English we find some phonemes which are not much different from their equivalents in Indonesian, some are of greater difference and some others are completely new to the learner because they have no equivalents in Indonesian. The smaller the differences, the lesser the difficulties of learning will be. Based on the degree of similarity between English and Indonesian, we can classify English fricatives into four:

a. easy : /s/, /f/, /h/ c. more difficult: /θ/,/ð/

b. difficult: /z/, /v/, /ʃ/ d. most difficult: /ʒ/

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27 Lado, Robert. Language learning, A Scientific Approach; New York, McGraw Hill, Inc. 1964 p. 75

28 Ibid. p. 77

29 Lado, Robert. Linguistics Across Cultures, Applied Linguistics for Language Teachers; Ann Arbor - The University of Michigan Press 1957 p. 1

4. Avoid vocabulary problems and grammatical problems

It should be remembered that teaching pronunciation is to train the student to use the sound system in speaking and listening, not to teach meaning. The task of the teacher in this case is to teach a word as a form instead of as meaning, and he should deal with pronunciation first.This principle, however, may not apply when a difficult word is needed to illustrate a minimal contrast between the phonemes. But in such cases the teacher may only teach the word as a form, not necessarily teaching the meaning.

In teaching pronunciation the teacher must also avoid grammatical problems which are not yet taught, so that he can provide a greater consentration on pronunciation purposes. When a grammatical problem that needs to be taught involves a pronunciation problem as well, it is good to teach the pronunciation problem even if it does not fit the order of presentation of the sound system.30/

5. Use the speech of educated people as model

It should be understood that in learning a foreign language the student does not invent the speech sounds, but he learns them by imitation.31/ In order to help the student achieve the standard sounds, the teacher's speech should be a good model to be imitated. For this purpose, the teacher should have the mastery on the speech of educated people.Good models, however, do not guarantee good imitation. But they are necessary to permit good responses.

It is known that a language has its own sound system in

30/ Lado, Robert. Language Teaching, A Scientific Approach; New York, McGraw Hill, Inc. 1964 p. 78

31/ Ibid. p. 50

which all elements are interelated and is different from the sound systems of other languages. The differences of sound system have some physiological bases, for examples the articulation of the phoneme, breath control, tension. The teacher must understand this physical aspect of sound production.Even-though his knowledge on this aspect will not necessarily be taught to the student, it will enable him to give a precise instruction which will help the student correct his pronunciation.

Besides, the teacher necessitates to understand the concept that a phoneme is the smallest unit of a language that differenciates meaning.[32] Understanding the phonemic system of the foreign language will enable him to emphasize the phonetic differences that determine whether the student's utterance is intelligible or unintelligible.

7. Pronunciation is a two-fold process[33]

There are two activities expected to occur in pronunciation, they are the involvement of aural receptivity or the recognition of sound, and the actual production of sounds. In learning the sound system of a language the learner is faced with the problem to recognize the significant sounds in the language before he is able to produce them. In teaching English pronunciation the teacher should pay attention to these activities to make a rapid recognition and precise production of the sounds.

Since pronunciation is a two-fold process, the difficulty that the learner is faced with in learning English fricatives

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32/ Rivers, Wilca M., Teaching Foreign Language Skills. Chicago and London, Topan International Edition, 1970 p. 115

33/ Lado, Robert and Fries, Charles C. English Pronunciation, Exercises in Sound Segments, Intonation and Rhythem.Ann Arbor The University of Michigan Press, 1960 p. 111

can be classified as belonging to either perception or production problem. Pronunciation problems are resulted from the same reason, i.e. the tendency to transfer Indonesian sound system to English without realizing the differences that exist.In order to overcome the tendency to hear English sounds in the categories which are made familier by Indonesian, aural discrimination exercises are needed, in which near-equivalents in Indonesian and the foreign sounds are distinctly differenciated. For this purpose, the teacher will need a lot of drill in aural discrimination, which can be carried out by Using minimal pairs, i.e. words that differ only in the pronunciation of the sound to practice.

After dealing with aural discrimination practises, the teacher should give enough opportunity to produce the sound in simple phrases and in longer sentences. Ideally, the sentences are utterances that are naturally phrased as they are used in conversation, but artificially constructed sentences or those that contain unusual words and grammatically difficult may be used as long as the teacher insists on practicing the sounds and witholding vocabulary and grammatical problems.[34/]

8. Classroom atmosphere

Classroom atmosphere is very important when dealing with pronunciation.[35/] The learner will not be able to achieve the freedom necessary for learning to produce sounds which are unfamilier to him if he does not feel at home with the teacher and his fellow students. It will be easier for him to imitate the sounds when he feels at ease with himself. It is important therefore, for the teacher to create such a situation in which the whole class can relax completely.

The same situation is required especially when one or two

34/ Rivers, Wilga M. Teaching Foreign Language Skills; Chicago, Toppan International Edition, 1970 p. 120

35/ Ibid.

of the students suffers some physical or psychological impediments.[36] If the teacher is not conscious of this situation, he may become tense and too much anxious with himself when he attempts to help the learner improve his pronunciation. This tension increases the tension that the learneris already experiencing, and causes a feeling of panic in which the learner ceases to hear anything distinctly. The harder he tries, the more tense he becomes and the less he can hear or produce the sounds.[37]

B. The Techniques to Overcome the Problems

Before striving after the techniques to solve the problems, we should remember the principles to teach pronunciation, especially that pronunciation involves two activities, i.e. recognition of sounds and production of sounds. In order to make a ra - pid recognition and precise production of the sounds the teacher should pay attention to these activities, and he should give appropriate exercises. Perception practices should be given before the production practices because the learner will not be able to produce the sounds unless he has a correct perception of the sounds.[38]

1. Teaching /θ/, /ð/ and /ʒ/

The three phonemes, to which Indonesian does not have the equivalents, should be taught because they are new phonemes to the learner, and there is no phoneme that fits to be used as the substitute for them in Indonesian.

The three phonemes should not be taught all at once, and

36/ Lado, Robert and Fries, Charles C., English Pronunciation Exercises in Sound Segments Intonation and Rhythem; Ann Arbor-The University of Michigan Press, 1960 p. v

37/ Rivers, Wilca M., Teaching Foreign Language Skills; Chicago, Toppan International Edition, 1970 p. 192

38/ Fries, Charles C., Teaching and Learning English as A Foreign Language; Ann Arbor-The University of Michigan Press, 1970 p24

the teacher has to select which needs to be taught first. For this purpose, he must remember that he must start with the easiest phoneme, that is one which will be most easily acquired. Besides, he must select the sound which is rated highest in the frequency of occurance. Between the three phonemes, /ʒ/ should be taught after the other two because it is both very difficult and occurs the least frequently in children's conversation. The introduction of other consonants, especially its voiceless cognate, may become a help to master this sound. /θ/ and /ð/ can be considered as of the same difficulty. In respect to the frequency of occurance, /ð/ is used only in a small number of words but they are of very high frequency and should be introduced in the earliest time when the learner begins to learn English. Thus /ð/ needs to be taught before the other two phonemes.

The first step that the teacher can do in dealing with the three phonemes is introducing them to the learner by giving examples. Since they do not have any equivalents in Indonesian, introducing them will coincide with introducing new words, and thus may represent a problem of meaning. But for the sake of pronunciation, the teacher should witho ld the meaning. that is important for providing a greater concentration on the sounds as well as to provide selective listening of the sounds. Selective listening of the new sounds should begin from the very moment the learner first hears them.[39] It will be more difficult to improve the habits of wrong pronunciation than to establish the meaning of the words in the learner's mind.

For efficiency, I will not discuss the technique for teaching the three phonemes, but only /ð/, with some additional consideration for both /θ/ and /ʒ/.

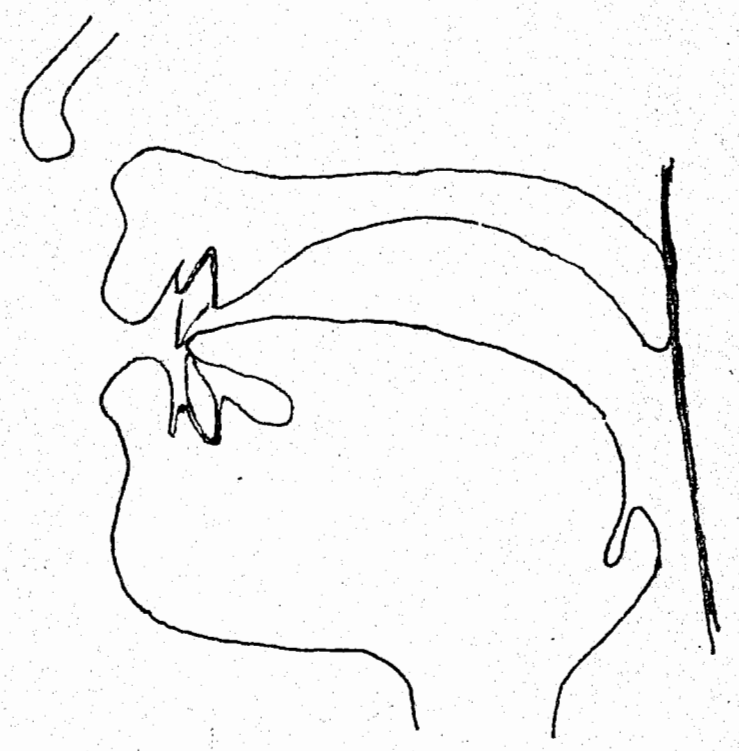
39/ Allen, Harold B., Teaching English as a Second Language; New York: McGraw Hill Book Company 1965 p. 108

a. The technique to teach /ð/

1) Introducing the sound

This sound is usually introduced to the learner together with introducing the words this, that, the, they. The teacher can pronounce those words, while the learner listens to him.

Introducing this sound requires active participation from the learner. To help the learner experiment how this sound is produced, the teacher can describe the articulation and draw the facial diagram that shows the position of tongue-tip. Unless he describes as such, the learner will not be able to achieve the position of tongue-tip correctly because there is no corresponding phoneme articulated in the same position in Indonesian.



The position of tongue-tip for /θ/ and /ð/

To help the learner produce this sound, the teacher can give an injunction by saying "Put your tongue-tip between your teeth and blow".[40] To check the vibration of vocal cords, get the

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40/ Ripman, Walter., English Phonetics; Bedford St. London W.C. J.M. Dent and Son LTD. 1957 p. 65

learner to touch his adam's apple while producing this sound.

2) Hearing practice

After the sound is introduced to the students, a special hearing practice is needed to develop their recognition and discrimination of this sound. In this practice, it will be very valuable to contrast this sound with other sounds that may be used as the substitutes for it, e.g. /d/. It can be contrasted to its voiceless cognate, too, whenever the latter has been introduced.

The following is some suggestion for hearing practice.[41]

a) Identifying sounds by number

The teacher writes /ð/ and /d/ on the blackboard. Give number 1 in front of /ð/ and 2 in front of /d/. Then the teacher says a word of which the initial sound is either /ð/ or /d/. Ask the students to write or say "one" if the word begins with /ð/ and "two" if it begins with /d/.

For examples:

1. /ð/		2. /d/	
Teacher :	this [ðis]	T :	there [ðeə]
Students:	one	S :	one
T :	they [ðei]	T :	dare [deə]
S :	one	S :	two
T :	day [dei]	T :	the [ðə]
S :	two	S :	one
T :	that [ðæt]	T :	though [ðou]
S :	one	T :	one
T :	dead [ded]	T :	den [den]
S :	two	S :	two

First of all, get the students to answer in unison, then

41/ Nation, I.S.P., Language Teaching Techniques; IKIP Sanata Dharma Yogyakarta 1974

give individual turns. As a variation as well as to practice /ð/ in the final position, the teacher can say words ending in /ð/ or /d/, the practice can be conducted in the same procedure.

b) Identifying sounds by saying "same" or "different"

The teacher says two words which are different only in one sound to be contrasted, i.e. /ð/ vs. /d/. Sometimes he says the same words. The students are asked to say "same" if the words are the same, or "different" if the words are different. For the sake of hearing practice the teacher may say nonsence words.

For examples:

Teacher:			Students:
then	-	den	different
they	-	day	different
though	-	though	same
the	-	the	same
clothe	-	clothe	same
thy	-	die	different
breathe	-	breathe	same
seethe	-	seed	different

c) Instead of saying two words, the teacher can mention three words, for examples "there, there, dare", and the students must answer "one, two" because the first and the second words are the same. If the teacher says "they, day, they" the students must answer "one, three" because the same words are the first and the third. And if the three words are the same, they must answer "one, two, three".

d) During the hearing practice the students may experiment in pronouncing /ð/. Their ability to pronounce this sound will help them hear the sound.

3) Production practice

The next step following hearing practice is production practice. A satisfactory production of the sound can be accomplished chiefly by imitation or mimicry.[42] Production practice can function as to improve the receptive grasp of the sound too, but it is mainly devoted to practice the production of the sounds.

For this purpose, the teacher can make use of minimal pairs to contrast /ð/ especially with /d/. Thus the teacher can provide a list of words containing the contrasting sounds as the following:

I		II	I		II
/ð/		/d/	/ð/		/d/
they	-	day	louth	-	loud
then	-	den	breathe	-	breed
thy	-	die	seethe	-	seed
though	-	doe	breathing	-	breeding
thus	-	does	loathing	-	loading
there	-	dare	lather	-	ladder

The teacher reads the words in column I once or twice slowly and carefully, the students listen to him. He reads them again, repeated by the students. The same thing is done with the words in column two. Then he reads each pair of the contrasting words and the students repeat after him.

In order to give enough opportunity for the individuals to produce the words and to control the pronunciation of the particular sound to learn, the teacher can give individual turns. First of all, get each of the learners to read a word in column one, one after another. Then get him to read

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42/ Fries, Charles C. Teaching and Learning English as a Foreign Language, Ann Arbor - The University of Michigan Press 1970 p. 24

a word in column two, until they all have the opportunity to read. Afterwords, get the individual to read a word in the first column and its pair.

b) Since /ð/ is distributed initially, medially and finally, it is necessary for the teacher to provide minimal pairs which show the contrast of the sounds in all the three positions. The practice using these various positions may be conducted to overcome or to develop the discrimination of fully voiced and partially voiced variants of /ð/, too.

c) /ð/ has some articulatory variants that are characterized by the position of the lips.It will be amusing to practice the muscle of the lips by pronouncing this sound occuring with various vowels and diphthongs.

/ɒ/ : cloth	/ei/ : they, scathe
/i/ : this, with, worthy	/ai/ : thy, thine,writhe
/æ/: that, than, laths	/ou/ : those, clothes
/ʌ/ : thus	/au/ : thou
/ə/ : the, them, hither	/eə/ : there
/e/ : then	/u:/ : smooth, soothe
/i:/: these, seethe, heath	/ɑ:/ : paths, baths

d) The next step after giving practice with imitation in isolated words, an exercise is needed to attain flexibility of articulation in various distributions, in various positions of lips and in precise production of the sound besides rapid recognition. This exercise will not be sufficient to be conducted by providing isolated words, it will need useful phrases, sentences or even paragraphs. The following is some examples:

Words for contrast

den - then - Zen	dine - thine - resign
breeding - breathing - breezing	lied - lithe - lies
seed - seethe - seize	bayed - bathed - baize
teed - teethe - tease	ladder - lather - lazer

Phrases

together with them	they are there
the other brother	those things with these
the father of the two	these wreaths
worthy clothes	smooth clothes
hither and thither	their mother though

Sentences

My brother did that themselves.

Their car is better than this one.

Are they going there some other day, mother?

Although these southern cities have better weather,

I'd rather visit the northern ones.

They walked hither and thither through the paths.

She soothes the other brother with a feather.

They hit the thieves in their mouths.

b. Some additional thoughts for teaching /θ/

To introduce this sound, the teacher can make use several words which are of high frequency, e.g. thank, thing, think, math. When giving the opportunity for the learners to experiment this sound, the teacher can give the same injunction as that used for /ð/. Since it is the voiceless cognate of/ð/, he must tell the learners that it is produced without vibration of vocal cords.

Since /θ/ is the voiceless cognate of /ð/, it is necessary to contrast this sound with /ð/. It should be contrasted to /t/ and /s/ too, because they both are often used as the substitutes.

c. Some additional thoughts for teaching /ʒ/

This phoneme may be considered as the most difficult for an Indonesian learner of English, and can be introduced to him after the other phonemes have been taught. Teaching this pho - neme will need a lot of practice, and a clear description of the articulation is required, especially to help the learner understand the position of tongue-tip. The learner will not be able to experiment this sound properly unless the teacher helps him by showing the position of tongue-tip. For this purpose, he can draw the facial diagram for the sound on the blackboard and describe the phonetic features.

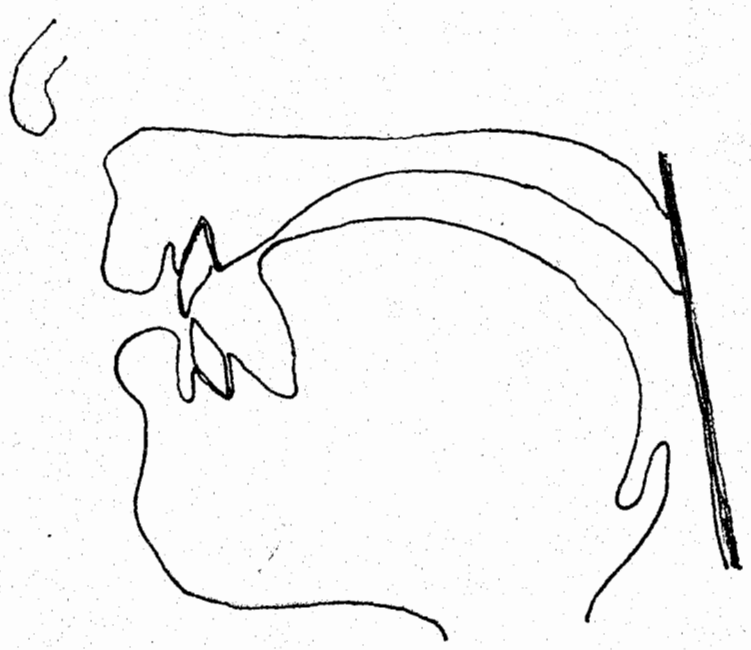

Fig. 2 The position of tongue-tip for /ʒ/

To make sure the establishment of the voicing, this sound can be contrasted to its voiceless cognate, i.e. /ʃ/, which should have been mastered before the learner is faced with /ʒ/. Let him start by pronouncing a long /ʃ/, then tell him to change into /ʒ/ by accompanying it with vibration of vocal cords. Let him touch the adam's apple, and he will feel the vibrations. Repreat this technique until he can produce the particular sound correctly before he uses it in words.

A sufficient mastery on this sound requires a lot of prac- tice. Unfortunately, this sound is the most rarely used, only a few

minimally contrasting pairs can be made with it.

2. Problems of difference in phonetic features

Both English and Indonesian have /s/ and /z/, but they may be different in the place of articulation. English /s/ and /z/ are alveolar, while Indonesian /s/ and /z/ are usually dental. Besides, English fricatives always contrast with their Indonesian equivalents in respect to the tension and exhalation of breath. These differences do not hinder the transformation of fricatives from Indonesian to English, and they are not realized by the students. In order to attain precise production of English fricatives, these differences deserve consideration in teaching.

To solve the first type of problem in which the learners tend to transfer the habit of his tongue in Indonesian, articulatory description can be useful to show how English /s/ and /z/ are articulated in contrast with their dental equivalents in Indonesian. The teacher can draw the facial diagrams for both English and Indonesian /s/ and /z/ and tell them

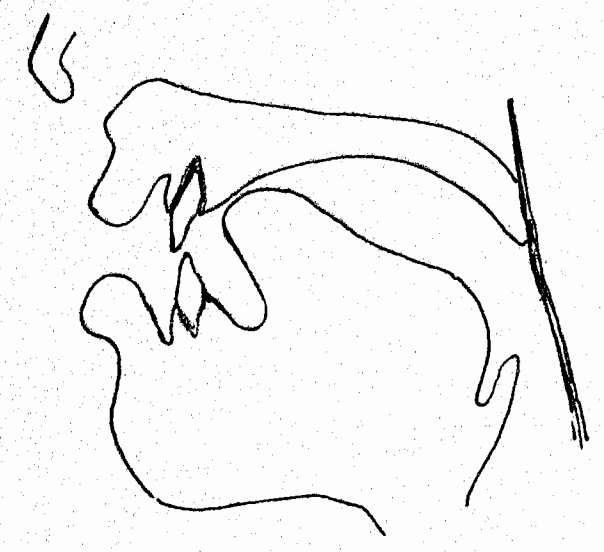

Fig 3: E/s/ and /z/

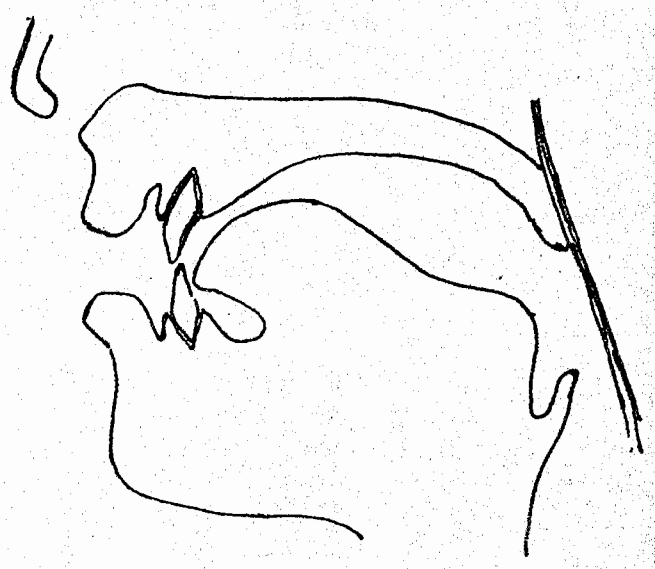

Fig.4: I/s/ and /z/

that to produce English /s/ and /z/ the tongue-tip and blade are

raised to make a light contact with the upper alveolar ridge, and the side rims of the tongue make a close contact with the upper side teeth. While the dental equivalents in Indonesian are made with the tongue-tip and blade lowered and make a light contact with the lower teeth. The side rims of the tongue make a close contact with the lower side teeth.

Merely giving articulatory description, however, will not work well unless the teacher gives enough practice to train the muscle of the tongue so that the learner develops not only an auditory but also a kinesthetic image of the brain to correct his speech muscle of the tongue.[43/]

In respect to the second difference, i.e. the degree of tension and exhalation of breath, this difference is generally negligible in learning English because it does not cause any serious trouble to the students.[44/] But the effect of this difference is likely not to be neglected with the voiceless variants of /v/ and /z/ because it can increase the distortion of the learner's utterance, in which he confuses [v̥] with [f] and [z̥] with [s] . To overcome this problem the learner needs a lot of practice for contrasting /v/ with /f/ and /z/ with /s/.

To help the learner accomplish the fortis tension of English voiceless fricatives, let him start by pronouncing Indonesian voiceless fricatives, then tell him to **expell** a greater breath and a firmer muscular energy, for examples:

[f̥f̥f̥f̥f̥ ..... f̥f̥f̥f̥f̥ ..... f̥f̥f̥f̥f̥ ..... f̥f̥f̥f̥f̥]

[s̥s̥s̥s̥s̥ ..... s̥s̥s̥s̥s̥ ..... s̥s̥s̥s̥s̥ ..... s̥s̥s̥s̥s̥]

In addition, English /ʃ/ does not differ from Indonesian /ʃ/ in the place of articulation, but they are different in respect

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43/ Rivers, Wilga M. Teaching Foreign Language Skills, Chicago, Toppan International Edition, 1970 p. 115

44/ Jones, Daniel. An Outline of English Phonetics, Wheffer, Cambridge, 1956 p. 185

to the position of the lips. In pronouncing English /ʃ/ the lips are more rounded than in pronouncing Indonesian /ʃ/. For Indonesian /ʃ/ the lips are usually in the neutral position. To over - come this problem the teacher will need to give some introductory description on the case, so that the learners will be able to practice their lips in the right position for this sound. He can also help them by getting them to start from Indonesian /ʃ/. Let them produce it continuously then tell them to make round their lips to accomplish the right position for English /ʃ/.

3. Problems of variant

English and Indonesian fricatives have two types of variant resulted from the difference of voicing and the influence of the adjacent vowel.

a. Voiced and partially voiced variants

Every voiced fricative of English has voiced and partially voiced variants. It is not so easy for an Indonesian learner of English to identify the difference between the fully voiced and the partially voiced variants because Indonesian speakers usually use completely voiceless variants of voiced fricatives in any position. It engreaters the tendency to perceive and produce both fully voiced and partially voiced fricatives of English as their voiceless cognates, especially when occuring finally, because voiced fricatives do not occur finally in Indonesian. Thus, for this reason the learner will perceive or produce English /v/ and /z/ as /f/ and /s/.

In order to overcome this problem, the learner will need a lot of practice to develop his ability to recognize and to discriminate /v/ from /f/ and /z/ from /s/. Since the partially voiced variant of the phoneme really can be negleacted, meaning to say, the fully voiced variant can be used instead of it in initial and final positions, it would be saver for

the learner to be trained to use the fully voiced variant in all the three positions. He will sccomplish the partially voiced variant automatically after quite a lot of practice.[45] For the practice, the teacher will have to provide a lot of words in which the voiced fricative is distributed initially, medially and finally, to be contrasted with its voiceless cognate.

b. Articulatory variant

Every English fricative is supposed to have some articulatory variants due to the adjucent vowel, and are characterized by the different placement or position of lips and tongue-tip. This type of variant is sometimes considered as unimportant for teaching purposes,[46] but a more precise formation of the sound will make the learner's utterance more intelligible to the listener. Since this type of variant is essentially conditioned by the vowel adjucent to the particular fricative, the mastery on this type of variant will depend on the mastery on the production of English vowels. For this purpose, it is important for the teacher to know the vowels that can be used with a particular fricative, as well as the classification of vowels according to the position of the lips. The lips in producing a vowel may be held in natuarl or neutral position, they may be spread out so as to leave a long narrow opening between them, and they may be drawn together so that the opening between them is more or less round.[47]

neutral	spread	rounded
/ʌ/	/i/ /i:/	/ɒ/ /ɔ:/
/a:/	/e/ /a /	/u/ /u:/
	/ə/ /ə:/	

45/ Jones, Daniel. AN OUTLINE OF ENGLISH PHONETICS. Wheffer, Cambridge, 1956

46/ Ibid.

47/ Jones, Daniel. THE PRONUNCIATION OF ENGLISH. Cambridge at the University Press 1973.

It should be noted that English voiceless fricatives, /s, ʃ, f, θ/, when occuring finally have the effect of reducing the length of the preceding vowel, particularly a long vowel or diphthong,[48] e.g. file, loath, place, leash. The same effect or reduction occurs when they are distributed in the medial position, e.g. proofing, earthy, racer, fission.

4. Problems from some alternative pronunciation

Indonesian speakers sometimes use some alternative pronunciations of /s/ and /sj/ for /ʃ/ and /dʒ/, /s/ for /z/. As a result, they may substitute English /ʃ/ with /s/ or /sj/ and /z/ with /s/ or /dʒ/. When a distortion as such occurs, the learner should be made aware that these alternative pronunciations do not fit the phonemic system of English. Understanding this difference will enable the teacher to ditermine whether the learner's utterance is intelligible to the ears of listener. As to the learner, he will need a lot of aural discrimination practice and exercises in which /ʃ/ is contrasted with /s/ or /sj/, and /z/ with /s/ or /dʒ/. The techniques for practice may fallow that for contrasting or practicing /θ/or /ð/. Here is an example of sentences for contrasting or practicing /s/, /z/, /ʃ/ and /dʒ/:[49]

Glorious seas, glorious ease. This sage, this age. This lot, this slot.

James was jesting when he adjured Jennie to jump over the juniper hedge.

The jolly Chinaman chuckled and chortled.

The shade he sought and shunned the sunshine.

Such precious stone she saw.

She sells sea-shells in a salt-fish shop.

48/ Gimson,A.C., An Introduction to the Pronunciation of English; London, ELBS and Edward Arnold LTD. 1976 p. 179

49/ Ripman, Walter., English Phonetics; Bedford St. London W.C.J.M. Dent and Sons LTD. 1957 p. 77

In silence he sat on the sands of the silvery sea.

He gives, as his custom at this season, a series of sermons.

How sweetly smells the honeysuckle in the hushed night.

Judge not, that ye be not judged, for with that judgement ye judge ye shall be judged.

5. Distribution problems

The distributions of English fricatives constitute an important problem in learning and cause the greatest number of distortion. For practical purposes the distribution of English fricatives can be devided into two, according the occurance of the individual fricative in initial, medial and final positions and the occurance in clusters.

a. Initial, medial and final

Final /v/ and /z/ are troublesome for the learner because Indonesian does not have a distribution as such. As a result, the learner will tend to devoice them or he will substitute them with the voiceless cognates, i.e. /f/ and /s/. To overcome this problem, we need a lot of practice for contrasting /v/ with /f/ and /z/ with /s/, particularly in the final position. For this purpose the teacher can follow the same technique as that to practice /θ/ or /ð/.

The occurance of voiced fricative initially and finally coincides with the formation of partially or completely voiceless variants of the phoneme, which usually engreaters the tendency to substitute voiced sounds with their voiceless cognates. This aspect, however, will not be discussed any more as it has been described in the problem of variant.

b. Consonant clusters

There are many clusters in which one or two fricatives occurs in English. They are troublesome to the learner because clusters are unfamilier in Indonesian. The teacher cannot teach

them all at once, but he has to grade them according to the frequency and utility as well as to the difficulty. Generally, the shorter the clusters, the easier they are to learn. Thus English clusters can be best practiced by starting with the shorter ones and building up, and by practicing in slow motion at first-pronouncing each sound in the cluster, without allowing any other sounds to intrude.[50/]

Before beginning to teach a particular cluster, the teacher should make sure that the learner has been able to pronounce the individual consonants that constitute the cluster.[51/] The teaching of cluster may follow the same technique as that to teach a new consonant. Principally, this technique consists of training the learner to hear the difference between one cluster and the others or individual sounds when pronounced in words or sentences, training him to pronounce the cluster sufficiently accurately without distortion and providing him plenty of practice and exercises. Being able to perceive or produce consonant clusters individually or in seperate words does not guarantee the mastery on the same case when to use them in normal speech. Practice and exercises are always needed to develope the learner's ability to discriminate the sounds that compose the clusters and to develope the flexibility to use them in normal comunication.

For efficiency, the solution for problems of cluster will not be given to each cluster seperately, but to the pattern that may cover one or more clusters. Besides in pre-vocalic and post-vocalic, the clusters will be devided further, to seek for the most appropriate classification which will help to make the effective technique for describing the solution.

50/ Allen, Harold B., Teaching English as a Second Language; New York, McGraw Hill Book Company 1965 p. 119

51/ Ibid.

1) Pre-vocalic clusters

Every fricative of English can occur in pre-vocalic clusters except /ð/, /z/ and /ʒ/. According to the sounds that follow them in the clusters, we can classify pre-vocalic clusters as the following:

/CCV-/ :
- /p/ bilabial stop
- /t/ alveolar stop
- /k/ alveolar stop
- /s/ + /m/ bilabial nasal
- /n/ alveolar nasal
- /f/ labio-dental fricative
- /f, s + l/ alveolar lateral
- /f, v, θ, s, h + j/ palato alveolar glide
- /θ, s, + w/ bilabial glide
- /f, θ, ʃ + r/ glide

/CCCV-/ :
- /splV-/ (/s/ + bilabial stop + lateral)
- /skjV-/ (/s/ + velar stop + palato alveolar glide)
- /skwV-/ (/s/ + velar stop + bilabial glide)

a) /s + p, t, k, m, n, f/

Actually, an Indonesian learner of English should not have any serious problem with the clusters /spV-/, /stV-/, /skV-/ because they are also used in Indonesian. However, they are all found in English loan words, so that it is understandable if the learner still find them difficult,either to recognize or to produce.

Since those clusters begin with /s/, a phoneme that also occurs initially in Indonesian, the learner will not be troubled to recognize or to produce it in the cluster. The problem lies in the second phoneme of the cluster, which should be perceived or produced in close transition after /s/. To help the learner produce those clusters, tell him to say a long

/s/, then tell him to add the second sound. To ensure that the transition is close the organs of speech usually take up the position of the second sound while releasing the previous one. When the learner has been able to produce the clusters, tell him to use them in complete words.

It will be valuable for the teacher if he knows how to articulate the sound, because if he finds his learner unable to produce the sound correctly he can help him by describing the position of the articulators.

For examples:

/stV-/ - Get the learner say a long /s/, then tell him to stop the sound by raising the tongue-tip until it touches the alveolar ridge, thus cutting of the friction.

/sfV-/ - Get the learner say a long /s/, then tell him to change the friction by moving the lower lip until it touches the upper incisors.

/snV-/ - The long /s/ is continued until the tongue-tip touches the alveolar ridge and allowing the breath to pass through the nose.

b) /s, f, + l/

To help the learner produce these clusters, let him start from a long /s/ or /f/, then tell him to add the second sound by moving the tongue-tip until touching the alveolar ridge, forming the lateral sound. In fact, the learner should not have a serious trouble with /slV-/ because Indonesian has the same cluster, e.g. in [slogan] slogan "moto", [slaŋ] slang "pipe". However, there is an alternative pronunciation [səlV-] :[səlogan] ,[səlaŋ] which may be transfered to English and causes distortion.

c) /f, v, θ, s, h + j/

To produce this type of cluster, let the learner start from a long /f/, /v/, /θ/, /s/ or /h/, then tell him to add

/jV-/. Since /j/ is a glide, it will be impossible to pronounce the cluster by itself, add a vowel instead. The possible vowel that can be used in this type of cluster, however, is only /u:/. For examples:

[fffff ..... ju:] [θθθθθ ..... ju:]

[vvvvv ..... ju:] [sssss ..... ju:t]

Mind the learner not to substitute /j/ with /i/, eventhough to produce /j/ the articulators start from the position of /i/, and this position is reached during the friction of the first sound.

d) /θ, s + w/

To help the learner produce this type of cluster, get the learner to pronounce a long /θ/ or /s/, then tell him to round the lips during the friction, to make ready for producing the second sound, i.e. /w/. The learner will not be able to produce the cluster by itself because /w/ is also a glide. Instead of adding the first sound merely with /w/, he should add /wV-/. Since the production of /w/ starts from the position of /u/, remind the learner not to substitute it with /u/.

/swV-/ should not be a serious problem for the learner because Indonesian has the corresponding cluster, though it is used merely with the vowel /a/ in the prefix swa- "by oneself". English /swV-/ is found with the vowels /i, i:, e, æ, ɒ, ʌ, ɔ:, ə;, u:/ and the diphthongs /ei/, /ai/, /ou/ and /eə/.

e) /f, θ, ʃ + r/

In teaching this type of cluster, the teacher should know that when distributed as such, /r/ is lingual fricative, which is much different from Indonesian thrill /r/. To help the learner produce /frV-/, let him start from /f/, and while keeping the friction he is told to drop the lower incisors just far enough from the upper lip, followed by a slight retraction and

curling upward of the tongue-tip to reach the position of lingual fricative /r/.

To produce /θrV-/ let the learner start from /θ/ and while keeping the breath out tell him to retreat the tongue-tip just far enough from the upper incisors and slightly curled upward to the position of /r/.

[θθθθθ ..... ru:] [θθθθθ ..... ri:]

[θθθθθ ..... rʌʃ] [θθθθθ ..... ril]

To help the learner produce /ʃrV-/ let him start from /ʃ/ and while keeping the friction the learner is told to lower the body of the tongue a little bit to make an upward curling of the tongue-tip to the position of /r/.

f) /splV-/, /stjV-/ and /skwV-/

Mastering the clusters /spV-/, /stV-/ and /skV-/ is important before the learner is to study the three clusters above. It is also important to note that the middle consonants are all stops, of which when followed by a consonant as such, the production cannot be slowed down. Therefore after reaching the position of /p, t, and k/ the articulators should immediately be made ready to produce /l, j or w/, which is expelled during the explosion of the stop.

[sp ..... plit] [sk ..... kwæk]

[st ..... tju:]

The teacher needs to be alert enough towards the production of [tju:] and [kwæk] because the learner may substitute /i/ for /j/ and /u/ for /w/. If he finds his learner make a distortion as such, he may segment the cluster into /st/ and /tj/ or /sk/ and /kw/ to be practiced seperately. After mastering particularly the second segment, give practice in the complete cluster.

2) Post-vocalic clusters

The post-vocalic clusters can be composed of two, three or four consonants.

a) /-VCC/

This type of cluster may consist of fricative and non-fricative, non-fricative and fricative, or fricative and fricative. The clusters can be classified according to the second sound as the following:

f, θ, s, ʃ + t

s + p

s + k

v, ð, z, ʒ + d

m, l + f

t, d, n, l, f, ŋ, p, m + θ

f, θ, p, t, k, l, n + s

b, d, g, ð, v, l, ŋ, m, n + z

(1) /f, θ, s, ʃ + t/

/s + p/

/s + k/

The technique to overcome the difficulty in producing these clusters is essentially the same as that to overcome pre-vocalic clusters, see page 36. The difference is, when the learner has come to adding /p, t or k/ to the long friction of the previous sound, he just should stop, not to continue with a vowel, and the tongue or the lips returns to the neutral position.

[liffff ..... t] [lisssss ..... p]

[ə:θθθθθ ..... t] [ɑ:ssss ..... k]

[wɑ:ʃʃʃʃ ..... t]

(2) /v, ð, z, ʒ + d/

Combinations of consonants as such never occur in prevocalic clusters in English. The difficulty to produce them, therefore, can be overcome by the same technique. Get the learner to produce the first consonant and keep the friction until the tongue-tip is moved to the position of /d/. The friction of the first consonant can be prolonged because it is always a fricative. The /d/ sound can be achieved by sliding the tongue-tip until it touches the alveolar ridge and cuts off the friction. When there is no word following the cluster, the tongue-tip returns to the normal position.

(3) /m, l + f/

To pronounce /-Vmf/ get the learner to start from producing a long /m/, then tell him to draw the lower lip to make a slight contact with the upper incisors, and as the contact is established force the breath out through the mouth instead of through the nose.

[traiəm ..... f] [nim ..... f]

[lim..... f]

To pronounce /-Vlf/ keep the tip of the tongue in the position of /l/, then the learner is told to drop the lower lip to make a light contact with the upper incisors for the position of /f/ while keeping the breath out through the mouth. It is important to know that English /l/ is alveolar, thus mind the learner not to produce a dental /l/ of Indonesian. It is also good to know that /f/ following /l/ has the effect of reducing the length of /l/. 52/

52/ Gimson, A.C., An Introduction to the Pronunciation of English; London, The English Language Book Society and Edward Arnold LTD. 1976 p. 179

For examples:

[hɑ:l..... f] [wul ..... f]

[sel ..... f] [gɒl ..... f]

(4) /t, d, p, l, f, m, n, ŋ + θ/

The consonants /t, d, n, l/ are alveolar; they are normally formed with the tongue-tip on the alveolar ridge. But when followed by /θ/, they can be made with the tongue-tip touching the back of the upper incisors.[53/] When it has been in the position as such, pull it away slightly to give the dental friction of /θ/.

[eit..... θ] [bred ..... θ]

[ten ..... θ] [hel ..... θ]

In producing /-Vfθ/ the tongue-tip is placed in the position of /θ/ during the friction of the first consonant so that there is no gap to insert a vowel between them.

To produce /-Vŋθ/ the tongue-tip is also placed in the position of /θ/ during the nasal /ŋ/ sound is atill produced, to avoid a gap for insertion of vowel.

To pronounce /-Vpθ/ and /-Vmθ/ place the tip of the tongue in the position of /θ/ while the lips are closed after making /p/ or /m/, then open them to allow the breath out through the mouth, forming the friction of /θ/.

(5) /f, θ, p, t, k, l, n + s/

/b, d, g, ð, v, l, ŋ, m, n + z/

When making these clusters, the learner must always be made sure to form the first consonant firmly, then he is told to put the tongue in the position of /s/ or /z/ while he is still continuing the first consonant. For instence in [mæps] maps, the lips are closed firmly for /p/, then behind this

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53/ O'Cornnor,J.D. Better English Pronunciation, Cambridge University Press 1967 p. 96

sound the tip of the tongue is placed in the position of /s/, so that when the lips are opened releasing /p/, the /s/ is heard immediately without any intrusive vowel. /z/ is the voiced cognate of /s/, they are both alveolar, thus made on the alveolar ridge. Since /z/ is voiced, remind the learner for the voicing when he opens the lips for /z/.

/-Vθs/ and /-Vðz/ give a greater trouble for the learner than the other clusters do. Because /s/, /z/, /θ/ and /ð/ are all made with the tip of the tongue, and because the teeth and the alveolar ridge are rather close together, there is a danger of using /s/ instead of /θ/ in /-Vθs/ and /z/ instead of /ð/ in /-Vðz/. This difficulty is strengthened by the common distribution of the four consonants, that /s/ and /z/ are usually at the end of words, and /θ/ and /ð/ begin the very common words such as thing, think, the, this, that, these, those, they, etc.

To overcome this problem, let the learner start by pronouncing a long /θ/ or /ð/ with no much friction. Then tell him to slide the tongue-tip gently backwards to the alveolar ridge in order to give the friction of /s/ or /z/.

[mpθ ..... s] [mi:θ ..... s]

[bri:θ ... z] [beiθ ..... z]

b) /-VCCC/

According to the final two consonants, the English post-vocalic clusters consisting of three consonants can be classified as the following:

l + fθ

p, k, n, l, f, s + ts

p, t, n, l + θs

m, l, + fs

ŋ, l, s + ks

n + dz

n + zd

The classification shows that the final two consonants of each cluster are sounds which can form a post-vocalic cluster as discussed previously. Thus for efficiency, in dealing with this type of cluster we can suppose the learner to have mas - tered /-Vfθ/, /-Vts/, /-Vθs/, /-Vfs/, /-Vks/, /-Vdz/, /-Vzd/, and the problem will be in producing the first two consonants. The combination of the first two consonants, however, has been discussed previously when it consists of non-fricative and fricative or of fricative and non-fricative. Now we can make a rough generalization that the mastery on clusters consisting of three consonants can be helped by the mastery on the simpler clusters. However, the combination of the three consonants makes it more difficult to perceive or to produce the middle sound than to perceive or to produce it when occuring in clus- ters consisting of two consonants.[54/]

(1) /-Vlfθ/

This cluster can be segmented into lf and fθ , of which the latter has been discussed in the cluster consis- ting of two consonants, see page 42, and the former has also been discussed previously, see page 41.

(2) /-V + p, k, l, n, f, s + ts/

In respect to /-Vfts/ and /-Vsts/, the learner will find them very difficult because they can be segmented to /-Vft/, /-Vst/ and /-Vts/, which should have been learned when dealing with clusters consisting of two consonants, see pp. 40 and 42. More difficult will be in producing /p, k, l, n + t/. To solve this difficulty let the learner pro- nounce the first consonant firmly, then tell him to put the tongue-tip in the position of /t/, i.e. on the alveolar ridge, while he is still continuing the first sound. If he has been able to pronounce them, let him add /s/.

54/ Allen, Harold B. Teaching English as a Second Language, New York, McGraw Hill Book Company, 1965 p. 119

(3) /-V + p, t, n, l + θs/

These clusters will not be very difficult for the learner if he has been able to pronounce /-Vp, t, n, l + θ/ and /-Vθs/, to which these clusters can be segmented. see page 42.

(4) /-V + m, l + fs/

The learning of these clusters can also be based on the mastery of /-Vmf/ /-Vlf/ and /-Vfs/.

(5) /-V + ŋ, l, s + kš/

In respect to /-Vsks/, the learner will not be much troubled either because he can segment it into /sk/ and /ks/, which should have been learned previously, e.g.

[ɑ:sk] ask [teiks] takes

To produce /ŋk/ and /lk/ let the learner start by pronouncing /ŋ/ or /l/, then tell him to raise the back part of the tongue in firm contact with the soft palate so that the breath is trapped to make the stop /k/.

(6) /-Vndz/

To master this claster the learner should have been able to produce /-Vnd/. /n/ and /d/ are both alveolar, but they are different in manner. To help the learner produce this cluster let him start by pronouncing /n/, then tell him to make a more firm contact of the tongue-tip with the alveolar ridge, while the soft palate is raised to trap the breath not to passing through the nose. The adding of /z/ to /nd/ will not be difficult for the learner if he has been able to pronounce the cluster /-Vdz/. See page 42 no. 5.

(7) /-Vnzd/

To master this cluster the learner should have mastered /-Vnz/, se page 42 no. 5. /d/ is present in cluster due to inflectional suffix, and /zd/ should have been learned

too, when dealing with the cluster consisting of two consonants. See page 41 no, 2.

c) /-VCCCC/

English post-vocalic clusters that are composed of four consonants are chiefly:

/-VftΘs/ /-VlfΘs/ /-VvnΘs/ /-VŋkΘs/

/-VksΘs/ /-VntΘs/ /-Vksts/ /-Vmpts/

The learner's mastery to produce clusters consisted of two or three consonants can be very helpful to pronounce these clusters. Each of these can be learned by segmenting it into three smaller clusters consisted of two consonants, or into two clusters consisted of three consonants. For example, /-VlfΘs/ can be segmented into /lf/ [hɑ:lf] <u>half</u>

/fΘ/ [ifΘ] <u>fifth</u>

/Θs/ [breΘs] <u>breaths</u>

/lfΘ/ [twelfΘ] <u>twelfth</u>

All the eight clusters can be segmented as such, and the segments will consist of the combination of fricative and fricative, or fricative and non-fricative. Besides, final /s/ or /Θs/ is present in the cluster due to inflectional endings. The learner, therefore, should have been able to produce the segments before he is facing with this type of cluster.

Pronouncing four consonants in close transition as a cluster, however, is always more difficult than pronouncing a cluster consisted of two or three consonants. But supposed the learner is able to pronounce the segments, he would only need to practice.

The followings are examples of segmenting the eight clusters,

/-VlfΘs/: see above.

/-VftΘs/: /ft/ <u>lift</u>; /tΘ/ <u>width</u>; /Θs/ <u>maths</u>

/-VksΘs/: /ksΘ/ <u>sixth</u>; /Θs/ <u>maths</u>

/-Vntθs/ : /nt/ tent; /tθ/ width; /θs/ maths

/-Vvnθs/ : /vnθ/ seventh; /θs/ maths

/-Vkts/ : /kst/ text; /ts/ cats

/ks/ six; /st/ list; /ts/ cats

/-Vŋkθs/ : /ŋkθ/ length; /θs/ maths

/-Vmpts/ ; /mpt/ tempt; /ts/ cats

/mp/ lamp; /pt/ apt; /ts/ cats

In /-Vŋkθs/, /-Vftθs/ and /-Vmpθs/ the second consonants are actually intrusive sounds. It is not necessary to pronounce them, and the learner may say /-Vŋθs/, /-Vfts/ and /-Vmθs/ instead. These alternative pronunciations will make it easier for the learner to pronounce the words concerned.

6. Problems of interference from writing representation

English writing symbols can cause a negative interference on pronunciation because unlike in Indonesian, there is no one-to-one relationship between the symbols and the sounds they represent. The problems for the learner, on this point of view, is not in recognizing or producing the sounds, but on his ability to discriminate phonemic system from writing system, and the ability to recognize the symbols that represent the particular phonemes; every fricative of English is represented by two or more units of symbols.

For the first problem, the learner should be made aware that a letter is not a phoneme. A phoneme is the smallest functional unit of sound, while a letter is only the symbol or the representation of sound. For an advanced learner of English, an elaborate description of phoneme may be introduced, but understanding that sound is different from letter is a minimal requirement when learning English. To illustrate the description, the teacher may give examples to show that one symbol may be very much different from the sound symbolized, that one symbol may

represent more than one sound, and that one sound may be represented by more than one unit of symbol. For examples:

ph, gh symbolize /f/

sch, -ti- symbolize /ʃ/

s symbolizes /s/, /z/, /ʃ/, /ʒ/

f symbolizes /f/, /v/

To overcome the second problem, the teacher needs to help his learner recognize any symbols that represent a particular phoneme. It is difficult because in English there seems to be no definite pattern that guides the system of symbols. First of all, he can show any "regularity of fit" 55/ of the sound or phoneme and its symbols. For example, s represents /z/ when distributed after voiced sound, but /s/ after voiceless sound, e.g. beds [bedz] , bags [bæ gz] , bets [bets], backs [bæ ks]. He can also show whether a particular symbol represents a particular sound only in a particular or a number of words, e.g. ph represents /v/ only in nephew, while in other words it represents /f/.

55/ Lado, Robert. Language Teaching, New York: McGraw Hill, Inc. 1964 p. 136

CONCLUSION

In conclusion, some general remarks can be made. By making a comparative study of English and Indonesian fricatives we can reveal several learning problems which cause many distortion and should be overcome by both the learner and his teacher. Before trying to help the learner overcome the distortion he makes, the teacher necessitates understanding the problem or problems, which will enable him to know the appropriate technique for solution, for instence whether he has to describe the articulation of the sound concerned or that he has just to provide practice and exercises.

The degree of difficulty differs from one phoneme and another. The phonemes which have equivalents in Indonesian are relatively easy to learn. The greater the similarities, the easier it is to learn, and thus those which do not have equivalents, i.e. /θ/, /ð/ and /$\overset{v}{z}$/, provide the greatest difficulty of learning; the learner has to learn new articulation systems which he has never met in Indonesian, he has to use them in a complex distribution of structure, besides that he has to learn the relation between them and the symbols that represent them.

Although the existence of equivalents to some English fricatives can reduce the difficulties, confusion in Indonesian pronunciation may cause troubles in learning English speech sound, for instence in respect to the alternation of /$\overset{v}{s}$/ to /sy/ or /s/ and /z/ to /s/, /$\overset{v}{j}$/ or /y/. From this point of view, the standardization of Indonesian phonology, especially in respect to /$\overset{v}{s}$/ and /z/ will,in some way, support the learning English speech sounds.

The graded-step principle may not meet with the utility of the phoneme concerned, which cause a relatively difficult problem to be taught early before the easier problems. This

principle is very useful, though, particularly for teaching clusters. Generally, the mastery on simple clusters becomes the base to learn the more complex ones; the learner will not find serious difficulties with the complex clusters if he has mastered the simpler ones. It is especially true when the complexity of the cluster is resulted from inflectional ending.

There is very little help that we can gain from the writing symbols to learn the sound system of English, but a teacher necessitates to understand the problems resulted from the interference of writing symbols. To reduce the many distortions which the learner may make, interference from writing symbols should not be neglected when one is learning English speech sound.

It needs to be noted too, that in teaching or solving the problems of English fricatives the teacher necessitates to be aware of the general principles for teaching pronunciation. Good models and good t chniques of teaching provided by the teacher do not guarantee the success of his teaching activities. The success of his struggles, i.e. skills to use the sounds both passively and actively in normal speech, is conditioned by several aspects. Besides, English fricatives cannot be learnt apart from the other phonemes of the language; A good mastery of this type of speech sound also requires the mastery on the other consonants, vowels and diphthongs, phonemes of stress, pitches, open transition and clause terminals.

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