A CONTRASTIVE STUDY OF THE SEGMENTAL PHONEMES
OF ENGLISH AND JAVA NATIVE FOR THE PREDICTION
OF PRONUNCIATION PROBLEMS

A THESIS
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Yogyakarta, June 1987

The writer,

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>1</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>11</td>
</tr>
<tr>
<td>CHAPTER I : INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>A. Background of Study</td>
<td>1</td>
</tr>
<tr>
<td>B. Aim of Study</td>
<td>3</td>
</tr>
<tr>
<td>C. Scope of Study</td>
<td>3</td>
</tr>
<tr>
<td>D. Method of Study</td>
<td>5</td>
</tr>
<tr>
<td>E. Procedure</td>
<td>7</td>
</tr>
<tr>
<td>CHAPTER II : THE SOUND SYSTEM OF ENGLISH</td>
<td>9</td>
</tr>
<tr>
<td>A. Consonants</td>
<td>9</td>
</tr>
<tr>
<td>B. Clusters</td>
<td>26</td>
</tr>
<tr>
<td>C. Vowels</td>
<td>29</td>
</tr>
<tr>
<td>D. Diphthongs</td>
<td>34</td>
</tr>
<tr>
<td>CHAPTER III : THE SOUND SYSTEM OF JAVANESE</td>
<td>16</td>
</tr>
<tr>
<td>A. Consonants</td>
<td>36</td>
</tr>
<tr>
<td>B. Clusters</td>
<td>53</td>
</tr>
<tr>
<td>C. Vowels</td>
<td>55</td>
</tr>
<tr>
<td>D. Diphthongs</td>
<td>61</td>
</tr>
<tr>
<td>CHAPTER IV : A CONTRASTIVE STUDY OF JAVANESE</td>
<td>62</td>
</tr>
<tr>
<td>ENGLISH SOUND SYSTEMS</td>
<td></td>
</tr>
<tr>
<td>A. Consonants</td>
<td>52</td>
</tr>
<tr>
<td>B. Clusters</td>
<td>78</td>
</tr>
</tbody>
</table>
C. Vowels .................. 81
D. Diphthongs ................. 87

CHAPTER V: CONCLUSION AND SUGGESTIONS ............... 88
A. Conclusion .................. 88
B. Suggestions ................. 90

BIBLIOGRAPHY .................. 96
CHAPTER I

INTRODUCTION

A. BACKGROUND OF STUDY

Since language is an oral process, accurate pronunciation, that is, the mastery of the sound system, is a prerequisite to complete mastery of the language. It is as important as the grammar or vocabulary of the language. In order to understand what people are saying when they speak to us, and in order for us to make ourselves understood in speaking to others, it is necessary to know the system of sounds in the language we are hearing and speaking. 1)

Realizing that the mastery of the sound system of English is not easy to achieve, I have been motivated to make a study of it. Learners usually transfer the sound system of their native language to that of the target language without realizing it. In communication terms, the substitution of another sound system produces noise that cuts down the intelligibility of what is transferred. In linguistic terms the phonemic distinctions that serve to identify the words and sentences of the target language may be

lost with resulting ambiguity; a different phoneme may be substituted with resulting misunderstanding or failure of communication. The chances of misunderstanding or lost of information increase with every linguistic signal that is not differentiated. 2) Teaching pronunciation is difficult, so teachers should do their best so as to help students master the sound system of the target language.

Considering that teaching every aspect of the sound system of English would be pedantic and would hinder rather than it would help, I want only to arrive at a list of English sounds that are difficult for Javanese learners to pronounce.

Pronunciation is a dual process. Pronunciation involves not only the ability to recognize the significant sounds in the language, but it also involves the ability to pronounce these sounds with accuracy. Hence the second part of the pronunciation process is the production of the significant sounds of the language. The attainment of accurate pronunciation of a second language, then, necessitates the ability to recognize and produce the distinctive sound

2) Robert Lado, Language Teaching, A Scientific Approach, 1974, p. 72
differences in the language. 3)

This study is an attempt for the prediction of pronunciation problems. I would like to discover the learning problems by a systematic comparison of the phonological system of Javanese with that of English. These learning problems constitute the content of the teaching of pronunciation.

B. AIM OF STUDY

I want to make up a list of English sounds that are difficult for Javanese learners to pronounce. The aim is to help the students recognize as well as produce the stream of speech of English. I would like to develop the students' ability to recognize and discriminate the English sound features that are used to distinguish meanings. The goal will be the correct use of the English sound system in utterances for communication.

C. SCOPE OF STUDY

Teachers should realize the bad effect of carelessness and should be aware of the importance of accuracy. I am urged to improve accuracy by studying

the use of the English sound system in utterances for communication.

The two major areas I include in my study are:

1. What might be the pronunciation problems of Javanese learners?

It includes ideas derived from the following articles:


c. Pronunciation Contrast in English, by Don L.F. Nilsen and Alleen Pace Nilsen.

d. English Pronunciation, by Peter A.D. and MacCarthy M.A.

e. An Introduction to the Pronunciation of English, by A.G. Gimson.


2. What could teachers of English do to improve students' accuracy in pronunciation?

It includes ideas derived from the following articles:
a. Language Teaching, by Robert Lado, Ph.D.
b. Language Testing, by Robert Lado, Ph.D.
c. English from Radio Australia Book I
d. Teaching and Learning English as a Foreign Language, by Charles C. Fries
e. A Comparative Analysis of the English System of Stress and Rhythm, by Charles Karismanto (a Previous Study).
f. Indonesian and English, a Contrastive Analysis, by J.B. Soemardjo (a Previous Study).

D. METHOD OF STUDY

Based on my observation as a teacher of English whose most of the learners have Javanese as their mother tongue, I believe that mastering the sound system of English is a necessity. By analyzing both English and Javanese sound systems and then contrasting both of them I want to arrive at a list of English sounds for the prediction of pronunciation problems. The method I use is a contrastive analysis and I mean to find out the pronunciation problems of the Javanese learners. Fries states: "The most effective materials are those that are based upon a scientific description of the language to be learned carefully compared with a parallel description of the native language of the
learners." 4)

The same assumption is also stated by Robert Lado. So I apply the technique of analysis as usually done in the analytical procedure, especially the one suggested by Robert Lado.

Stage I.

I prepare a linguistic analysis of the sound system of the language to be learned, i.e. English and a similar description of the language of the learner, i.e. Javanese. All the segmental phonemes of each language, their significant phonetic features and their distribution will be presented. I would like to state both the Javanese and the English analysis according to the parallel organization and description.

Stage II.

I would like to compare the sound systems phoneme by phoneme in order to find out points of difficulty. The comparison will be based on the following questions:

1. Does the Javanese sound system have the same phonemes as the English one? If the Javanese has the same phonemes, there will be no problem, but if the particular phonemes in English have different forms from the corresponding phonemes in Javanese.

---

or if they do not exist in Javanese, there will be problems.

2. Are the variants similar in both languages? If the variants are similar in both languages, there will be no problem, but if they are different, there will be problems.

E. PROCEDURE

In chapter II I would like to do the analysis of the English sound system first before discussing the Javanese, because the main study is English. The steps of the analysis will be as follows:

1. Consonants, consisting of:
   a. Stops or Plosives
   b. Fricatives
   c. Affricates
   d. Glides
   e. Nasals
   f. Lateral.

2. Clusters
3. Vowels
4. Diphthongs.

For the sake of illustration I would like to adopt the consonant, vowel and diphthong charts stated in the Pronunciation of the American English for Teachers of English as a Second Language, written by Betty J. Wallace.
The phonetic transcriptions used in my thesis will be also based on the ones used by the same author in the same book.

In chapter III I would like to do the analysis of the Javanese sounds. The steps of the analysis will be the same as the way I analyze the English sounds in chapter II, i.e.:

1. Consonants, consisting of:
   a. Stops or Plosives
   b. Fricatives
   c. Affricates
   d. Glides
   e. Nasals
   f. Lateral.

2. Clusters
3. Vowels
4. Diphthongs.

Consonant, vowel and diphthong charts will also be used to describe the point and manner of articulating each phoneme. The supra segmental features will not be discussed.

After analyzing the English and the Javanese phonemes, I would like to contrast the two in chapter IV.

At last I would like to take a conclusion and suggest a material for classroom practice based on the predicted problems I have found out.
CHAPTER II

THE SOUND SYSTEM OF ENGLISH

The greatest part of the English sound analysis will be based on the Pronunciation of American English for Teachers of English as a Second Language by Betty J. Wallace. First, the English consonant phonemic chart will be stated and I shall do the same thing with the English vowel and diphthong ones. After that each individual sound will be described in detail.

A. CONSONANTS

ENGLISH CONSONANT SOUNDS

<table>
<thead>
<tr>
<th>General Type</th>
<th>Point of Articulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lips</td>
</tr>
<tr>
<td>Stops/Plosives :</td>
<td></td>
</tr>
<tr>
<td>Voiceless</td>
<td>/ p /</td>
</tr>
<tr>
<td>pin</td>
<td></td>
</tr>
<tr>
<td>Voiced</td>
<td>/ b /</td>
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<tr>
<td>book</td>
<td>do</td>
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<tr>
<td>Continuants :</td>
<td></td>
</tr>
<tr>
<td>Fricatives v1 1)</td>
<td>/ f /</td>
</tr>
<tr>
<td>five</td>
<td>thank</td>
</tr>
<tr>
<td>v2)</td>
<td>/ v /</td>
</tr>
<tr>
<td>very</td>
<td>they</td>
</tr>
<tr>
<td>Nasals v2</td>
<td>/ m /</td>
</tr>
<tr>
<td>some</td>
<td></td>
</tr>
<tr>
<td>Glides v2</td>
<td>/ w /</td>
</tr>
<tr>
<td>we</td>
<td></td>
</tr>
<tr>
<td>Literal v2</td>
<td>/ l /</td>
</tr>
<tr>
<td>we</td>
<td></td>
</tr>
</tbody>
</table>
Notes:

1) v† is the abbreviation for 'voiceless' sound and
2) v‡ is the abbreviation for 'voiced' sound.

1. Stops or Plosives

\[
\begin{array}{c}
/ p / \\
/ t / \\
/ k / \\
/ b / \\
/ d / \\
/ g / \\
\end{array}
\]

= / p / =

The sound / p / is a voiceless bilabial stop or plosive. It is pronounced with the two lips pressed tightly together before the air is released with plosive sound. The English sound / p / is pronounced differently in different positions. At the beginning of a word the / p / has a puff of air accompanying it; after / s / in the cluster / sp / there is no puff of air, and at the end of a word, / p / may be produced by opening the lips with a puff of air or may be made by keeping the lips closed. In other words, at the end of a word it may be a stop or a plosive. The sound / p / occurs in initial, medial and final positions as in:

Initial position: pen
poor
post
Medial position : repeat
      copy
      happy

Final position :  cup
      rope
      soap
= / b / =

The sound / b / is a voiced bilabial stop or plosive pronounced with the two lips pressed tightly together then it is released as for / p /. The vocal cords are vibrating. The English / b / is pronounced the same way at any position. The sound / b / can occur in initial, medial and final positions as in :

Initial position : baby
      boy
      bed

Medial position : rubber
      cupboard
      harbour

Final position :  lab
      robe
      rub
= / t / =

The sound / t / is a voiceless alveolar stop or plosive pronounced with the tongue tip put against the upper teeth ridge then released. When we pronounce the initial / t / sound in such a word as tear, this sound is pronounced with aspiration. In medial position and after / s / it is unaspirated. At the end of a word it may be a stop or plosive. The sound / t / can occur initially, medially as well as in final position as in:

Initial position: tin
tip
ten

Medial position: waiter
sister
hunter

Final position: sent
lent
spent

= / d / =

The sound / d / is a voiced alveolar stop or plosive with the tongue tip put against the teeth ridge in order to completely shut off the stream of air. Then the air is released with a slight plosion. The English / d / can occur in initial, medial and final positions as in:
Initial position: day
doll
desk

Medial position: sudden
idea
needle

Final position: bad
food
rude

=/k=/

The sound /k/ is a voiceless velar stop or plosive pronounced with the back of the tongue put against the velum then released. When we pronounced the initial /k/ sound in such a word as care, the consonant sound is followed by a puff of air. In the cluster /sk/, /k/ is not aspirated. In final position it is pronounced either as a stop /k/ or as a plosive. The sound /k/ occurs in initial, medial and final positions as in:

Initial position: cook
key
cake

Medial position: baker
bookish
rocky
Final position: make
take
lake

= /g/= 

The sound /g/ is a voiced velar stop or plosive pronounced with the back of the tongue in the same position as for /k/. The vocal cords are vibrating. The sound /g/ is found in initial, medial as well as final positions as in:

Initial position: go
goat
girl

Medial position: again
degree
begin

Final position: beg
bag
leg

2. Fricatives:

/ f / / ð / / s / / s̻ / / h / 

/v / / θ / / z / / ʒ /
\[= / f / =\]

The sound \(/ f /\) is a voiceless labio dental fricative. It is produced with the upper teeth placed against the lower lip. The sound \(/ f /\) occurs in initial, medial and final positions as in:

**Initial position:** fat
feed
fine

**Medial position:** refuse
suffer
refresh

**Final position:** leaf
loaf
roof

\[= / v / =\]

The initial sound of the word 'very', 'vice', 'voice' is \(/ v /\) sound. This sound is pronounced with the upper teeth placed on the lower lip just as in the sound \(/ f /\). The only difference between this sound and \(/ f /\) lies in its voicing. The sound \(/ v /\) is voiced. So, it is a labio dental voiced fricative. The sound \(/ v /\) occurs in initial, medial as well as final position as in:
Medial position : evil
never
advice

Final position : love
live
above

= / θ / =

The sound / θ / is a voiceless dental fricative produced by putting the tongue between the teeth and letting the air pass over the top of the tongue. The sound / θ / occurs in initial, medial and final positions as in:

Initial position : thin
thick
thank

Medial position : method
healthy
wealthy

Final position : both
earth
bath

= / ð / =

The sound / ð / is voiced dental fricative produced by putting the tongue between the teeth and letting the air pass over the top of the tongue. The only difference
between this sound and the sound /θ/ is the addition of the vibration of the vocal cords. The sound /ʃ/ occurs in initial, medial as well as final position as in:

Initial position: though
    there
    these

Medial position: mother
    brother
    bother

Final position: breathe
    bathe
    with

= /s/ =

This sound is a voiceless alveolar fricative pronounced with the tongue tip close to the teeth ridge. The air makes a hissing sound as it passes over the tongue tip and between the teeth ridge. This sound occurs in initial, medial as well as final position as in:

Initial position: seat
    sing
    sell

Medial position: listen
    lesson
    assist
Final position : notes
    pass
    bus

    = / z / =

The sound / z / is a voiced alveolar fricative pronounced with the tongue in the same position as for / s /. It is a voiced sound; the vocal cords are vibrating. The sound / z / occurs in initial, medial as well as final position as in :

Initial position : zero
    zoo
    zebra

Medial position : lazy
    crazy
    husband

Final position : gaze
    says
    ears

    = / ʃ / =

The sound / s / is a voiceless palatal fricative pronounced with the blade of the tongue drawn back toward the palate. The tongue blade is grooved, the lips are pushed forward. The sound / ʃ / occurs in initial, medial and final positions as in :
Initial position : ship
               shut
               sheep

Medial position : fishing
                 dishes
                 social

Final position : fish
               cash
               wash

= / .TryParseThis / =

The sound / z / is a voiced palatal fricative. It is pronounced with the tongue blade and lips in the same position as for / ð / . The only difference is that / ž / is a voiced sound. The sound / ž / occurs in initial, medial and final positions as in:

Initial position : gigolo (French loan word)

Medial position : pleasure
                 measure
                 decision

Final position : garage

= / h / =

The initial consonant sound in 'hat', 'hair', 'hole' is symbolized with / h /. It is a voiceless fricative velar.
We produce / h / in the same way as taking a deep breath when a doctor wants to check our lungs. The sound / h / occurs in initial and medial positions but never in final.

Examples:

Initial position: hot
horse
hospital

Medial position: behold
ahead
perhaps

3. Affricates:

\[ \tilde{c} \]
\[ \tilde{j} \]

= / c / =

The sound / \tilde{c} / is a voiceless affricate palatal pronounced by putting the tongue blade against the teeth ridge as it for / t / and then pronouncing / \tilde{c} /.

The tongue is grooved. The sound / \tilde{c} / occurs in initial, medial as well as final position as in:

Initial position: chair
chief
chess
Medial position: actual
nature
picture

Final position: sketch
church
lunch

= / ʝ / =

The sound / ʝ / is a voiced affricate palatal and differs from / ɕ / only by being voiced. In pronouncing the first part of this sound the tongue blade touches the teeth ridge giving an impression that / ʝ / begins with the sound / d /. The / ʝ / sound occurs in initial, medial as well as final position as in:

Initial position: jail
joke
joy

Medial position: soldier
subject
urgent

Final position: page
stage
image
4. **Glides** :

\[
\begin{array}{ccc}
/r/ & /y/ & /w/ \\
\end{array}
\]

\[
/_r/_ = /r/ = \\
/_y/_ = /y/ = \\
\]

The sound /r/ is pronounced like a vowel sound. It is a voiced alveolar glide. The tip of the tongue is turned up toward the teeth ridge but without touching it. The lips are rounded. The sound /r/ occurs in initial and medial positions, but never in final, as in:

**Initial position**: rude 
road 
rear

**Medial position**: sorry 
hurry 
arrive

The initial sound in the word 'yet' is represented by the symbol /y/. In pronouncing /y/ we begin with the tongue in the position for the vowel sound /i/. Then the tongue glides smoothly into the position of the vowel which follows. It is a voiced palatal glide. The sound /y/ occurs only in initial position as in:

yes 
young 
yellow
= / w / =

In pronouncing the first sound in such a word as 'wet' we begin with the tongue in the position of the vowel / u /. Then the tongue glides into the position of the vowel sound which follows. This sound is represented by the symbol / w /. The lips are rounded at the beginning of the / w / sound. It is a voiced bilabial glide. The sound / w / occurs in initial and medial positions but never in final, as in:

Initial position: wide
   window
   wonderful

Medial position: backward
   away
   coward

5. Nasals:

/ m /  / n /  / ɲ /

= / m / =

The sound / m / is pronounced with the lips completely close. The tongue is relaxed. The air passes through the nose. It is a voiced bilabial nasal.

Examples:

Initial position: milk
mind
moon

Medial position : swimmer
demand
common

Final position : comb
calm
blame

= / n / =

The sound / n / is pronounced with the tip of the tongue on the teeth ridge and the air passes through the nose. It is a voiced alveolar nasal.

Examples : 

Initial position : nest
nose
near

Medial position : denote
signature
penny

Final position : pen
often
happen
= /ŋ/ =

The sound /ŋ/ is pronounced with the back of the tongue high in the back of the mouth cavity against the velum and the air passes through the nose. The front of the tongue is placed down behind the front lower teeth. It is a voiced velar nasal. The sound /ŋ/ occurs only in final position as in:

- ring
- link
- bring

6. **Lateral** :

= /l/ =

The lateral sound symbolized with /l/ is a sound produced by the air going out through the mouth but through the side of the tongue not over the top of the tongue. The sound /l/ occurs in initial, medial as well as final position as in:

- **Initial position**: leave
  - look
  - late

- **Medial position**: island
  - silent
  - silly
Final position : bell
doil
beautiful

B. CLUSTERS

English allows many clusters of consonants, that is, sequences of two or more consonants within a syllable which are troublesome for speakers of languages which do not permit such sequences.

In the following pages I list some consonant clusters which I adopt from Manual of American English Pronunciation by Clifford H. Prator Jr. and Betty Wallace Robinet, Lesson 14. I would like to present the consonant clusters in both initial as well as final position.
### TABLE OF INITIAL CONSONANT CLUSTERS

| /sp/ | Spin | /kr.// | crow | /pl/ | play |
| /st/ | stay | /br/ | bring | /kl/ | clay |
| /sk/ | sky | /dr/ | drink | /bl/ | blue |
| /sf/ | sphere | /gr/ | grey | /ql/ | glue |
| /sm/ | small | /fr/ | free | /fl/ | flew |
| /sn/ | snail | /r/ | three | /sl/ | slew |
| /tw/ | twin | /sr/ | shrink | /spy/ | spew |
| /kw/ | quick | /by/ | beauty | /sky/ | skew |
| /dw/ | dwell | /py/ | pure | /skw/ | squall |
| /gw/ | Guam | /ky/ | cure | /spr/ | spray |
| /sw/ | swim | /vy/ | view | /str/ | stray |
| /hw/ | when | /fy/ | few | /skr/ | scratch |
| /w/ | thwart | /hy/ | hue | /spl/ | split |
| /pr/ | pray | /my/ | mite | /skl/ | sclerosis |
| /tr/ | tray |

### TABLE OF FINAL CONSONANT CLUSTERS

| */lp/ | help | */rp/ | harp | */fs/ | laughs |
| */lt/ | belt | */rt/ | heart | */tst/ | watched |
| */lk/ | milk | */rk/ | hark | */dzd/ | judged |
| */lf/ | self | */pt/ | stopped | */lpt/ | helped |
| */lθ/ | wealth | */kt/ | liked | */rpt/ | harped |
| */lb/ | bulb | */ft/ | laughed | */mt/ | camped |
| */lv/ | delve | */θ/t/ | lathed | */spt/ | clasped |
| */lm/ | film | */st/ | passed | */n/ | month |
| */ln/ | kiln | */st/ | washed | */ns/ | once |
| */ls/ | else | */ps/ | stops | */nt/ | ant |
| */ls/ | Welsh | */ks/ | likes | */mp/ | camp |
| */sp/ | wasp | */ts/ | eats | */mt/ | dreamt |
| */sk/ | ask | */θ/s/ | baths | */mf/ | nymph |
C. VOWELS

The vowel sounds in English are produced by different positions of the tongue within the mouth cavity and by the rounding and the unrounding of the lips. The difference in the position of the tongue is the primary cause of the difference of the various vowel sounds. In the following I would like to present an English vowel chart and describe the manner in which each individual sound is produced.

**ENGLISH VOWEL SOUNDS**

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrounded</td>
<td>Rounded</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>/i/ leave</td>
<td>/u/ fool</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/I/ live</td>
<td>/u/ full</td>
<td></td>
</tr>
<tr>
<td>Mid</td>
<td>/e/ gate</td>
<td>/o/ know</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/æ/ get</td>
<td>/ə/ ago</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>/æ/ man</td>
<td>/ɔ/ saw</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>/ə/ block</td>
<td></td>
</tr>
</tbody>
</table>
The sound /i/ is a high front vowel, that is, the tongue is high in the front of the mouth cavity. The muscles of the tongue and the throat are tense. If the lips are drawn back, the vowel sound will be pronounced accurately.
Examples: sheep
leave
read

The sound /I/ is also a high front vowel, but it is pronounced with the tongue in a slightly lower position than for /i/. The muscles of the tongue, the throat and the lips are relaxed. The sounds /I/ and /i/ are also differentiated by length; the vowel sound of 'sheep' is long and the vowel sound of 'ship' is short.
The difference, however, is not one of quantity but of quality. This difference of the sound quality is produced by a difference in the tongue position.
Examples: ship
live
rid
= / e / =

The sound / e / is a mid front vowel. During the pronunciation of this vowel sound the tongue moves from mid position to high position in the front of the mouth cavity. This vowel sound is represented by the symbol / e / and the sound is pronounced as a half diphthong / ei /.

Examples:  
say
play
main

= / ɛ / =

The sound / ɛ / is a mid front vowel, that is, the front part of the tongue is not high nor low in the front of the mouth cavity but lower than that for / e /. The muscles of the throat are relaxed. The lips are unrounded.

Examples:  
men
pen
lend

= / æ / =

The sound / æ / is a low front vowel, that is, the front part of the tongue is low in the front of the mouth cavity. The lips are spread.

Examples:  
man
pan
land
= / ə / =
The sound / ə / is a mid central vowel, that is, the middle of the tongue is in the center of the mouth cavity. The mouth is not open very wide and the muscles of the tongue and the throat are relaxed. The lips are not rounded.
Examples:
  ago
  about
  adore

= / â / =
The sound / â / is a low central vowel, that is, the middle of the tongue is low in the mouth cavity. The mouth is open rather wide. The lips are not rounded. The sound / â / is pronounced as a long vowel.
Examples:
  hard
  bark
  sharp

= / U / =
The sound / U / is a high back vowel, that is, the back of the tongue is high in the back of the mouth cavity. The muscles of the tongue and the throat are tense. The lips are very round. The sound / U / is pronounced as a long vowel.
Examples:
  moon
  cool
  spoon
= / u / =

The sound / u / is also a high back vowel but it is pronounced with the tongue in a slightly lower position than for / U / . The muscles of the tongue and the throat are relaxed and the lips are less rounded than for / U / . The difference between the sound / u / with / U / is produced by the difference in the tongue position, a slight difference in the lip rounding and the sound / u / is a short vowel.

Examples : put
could
sugar

= / o / =

The sound / o / is a mid back vowel, that is, the back of the tongue is midway between the high and the low positions in the back of the mouth cavity. The muscles of the tongue and the throat are tense and the lips are strongly rounded. During the pronouncing of / o / the tongue moves upward to a high back position. For this reason the vowel sound has the quality of a half diphthong / ou / .

Examples : boat
coal
coat
= /ɔ/ =

The sound /ɔ/ is a low back vowel, that is, the back of the tongue is low in the back of the mouth cavity. The mouth is open and the lips are rounded. The sound /ɔ/ is pronounced as a long vowel.

Example: law
          bought
          caught

D. DI PH TH ONGS

This part is an attempt to study the English diphthongs. It is stated in 'An Outline of English Phonetics' by Daniel Jones that a diphthong is a succession of two vowel sounds. Since the vowel sounds have been discussed in the previous chapter, the description of the individual diphthong sound is not considered necessary. A diphthong chart will be presented to illustrate the direction of the glide because the succession of the vowel sound of a diphthong consists of an intentional glide. In producing a diphthong the organ of speech starts in the position of one vowel and immediately moves to the direction of another vowel sound. The mode of forming the principal members of English diphthong is shown in the following diagram.
The nature of the English Diphthongs

The dots show the starting points and the arrows show the direction in which the diphthong proceed.

This diagram is taken from An Outline of English Phonetics by Daniel Jones, page 99.
CHAPTER III
THE SOUND SYSTEM OF JAVANESE

A study of the sound system of the students' native language is very important for a teacher of English. If the teacher knows the sound system of his students' native language, he can predict where possible trouble spots may occur by comparing the sound system of the native language and that of the English.

This chapter is an endeavour to study how the Javanese sounds are produced. It is a description of how to produce every Javanese phoneme. The procedure will cover the following steps:

A. CONSONANTS.

1. The Javanese consonant sounds will be presented on a chart.

2. The individual consonant sound will be described in detail group by group.

a. Plosives and Stops:

\[
\begin{array}{cccc}
/ \text{p} / & / \text{t} / & / \text{t}^\text{h} / & / \text{k} / \\
/ \text{b} / & / \text{d} / & / \text{d}^\text{h} / & / \text{g}^\text{h} / \\
\end{array}
\]

b. Affricates:

\[
\begin{array}{c}
/ \text{c} / \\
/ \text{ʃ} / \\
/ \text{j} / \\
\end{array}
\]
c. Fricatives: /s/ /h/
d. Glides: /r/ /y/ /w/
e. Nasals: /m/ /n/ /ny/ /ŋ/
f. Lateral: /l/

It should be noted that there are twenty consonants represented by Javanese characters which are written under the lines.

B. CLUSTERS

C. VOWELS

The Javanese vowels will be dealt with the same procedure as that of the consonants.

1. The Javanese vowel chart will be presented.
2. Each individual vowel will be described in detail one by one.
   a. The high front vowel: /i/
   b. The mid front vowel: /e/
   c. The mid front vowel: /ɛ/
   d. The mid central vowel: /ə/
   e. The low central vowel: /a/
   f. The high back vowel: /u/
   g. The mid back vowel: /o/
   h. The low back vowel: /ɔ/
A. CONSONANTS

1. THE JAVANESE CONSONANT SOUNDS

<table>
<thead>
<tr>
<th>Manner of articulation</th>
<th>Point of Articulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Labial</td>
</tr>
<tr>
<td></td>
<td>Bilabial</td>
</tr>
<tr>
<td>Plosives &amp; Stops :</td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td>/ p /</td>
</tr>
<tr>
<td>pipi</td>
<td>tata</td>
</tr>
<tr>
<td>voiced</td>
<td>/ kʰ /</td>
</tr>
<tr>
<td>bapa</td>
<td>dara</td>
</tr>
<tr>
<td>Affricates :</td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>voiced</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Fricatives :</td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>voiced</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasals :</td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td>/ m /</td>
</tr>
<tr>
<td>mara</td>
<td>nata</td>
</tr>
<tr>
<td>Glides :</td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td>/ w /</td>
</tr>
<tr>
<td>wana</td>
<td>rasa</td>
</tr>
<tr>
<td>Lateral :</td>
<td></td>
</tr>
<tr>
<td>voiceless</td>
<td></td>
</tr>
</tbody>
</table>
2. Description of the individual Javanese Consonant Sounds.

a. Plosives or Stops:

\[
\begin{align*}
/p/ & \quad /t/ & \quad /t^{h}/ & \quad /k/ \\
/b^{h}/ & \quad /d/ & \quad /d^{h}/ & \quad /g^{h}/
\end{align*}
\]

\(= /p/=\)

The Javanese sound /p/ is a bilabial voiceless stop or plosive pronounced with the two lips pressed tightly together before the air is released with a plosive sound. The Javanese sound /p/ is never pronounced with a puff of air. It occurs in initial, medial and final positions. In initial and medial positions the Javanese sound /p/ are plosives. In a final position it is a stop.

Examples:

Initial position:  
- pipa - pipe
- pira - how many/how much
- pada - the same

Medial position:  
- upa - a grain of cooked rice
- apa - what
- sapa - who

Final position:  
- landep - sharp
- minep - shut
- arep - want
= / bʰ / =

The Javanese sound / bʰ / is a bilabial voiced plosive or stop pronounced with the two lips pressed tightly together, then released in the same way as for / p /. The vocal cords are vibrating. It is pronounced with a puff of air accompanying it. In initial and medial positions the Javanese sound / bʰ / are plosives. In a final position the sound / bʰ / is pronounced as a stop / p /. The Javanese sound / bʰ / occurs in initial and medial positions as plosives and in its final position as a stop, never a plosive and it loses its voice so it is a voiceless stop.

Examples:

Initial position: bapak - father
                bata   - brick
                biru   - blue

Medial position: kabar  - news
                subur  - nourish
                sebar  - to spread

Final position:  sebab  - cause
                urub   - light/flame
                rebab  - a Javanese musical instrument

= / t / =

The Javanese sound / t / is a dental voiceless stop. It is pronounced by putting the tongue tip against the upper teeth and then released. This sound is pronounced without aspiration.
The vocal cords are not vibrating. The Javanese sound /t/ occurs in initial, medial and final positions. In initial and medial positions the Javanese sound /t/ are plosives. In a final position it is a stop.

Examples:
Initial position:  tuku - to buy
takon - to ask a question
teka - to arrive

Medial position:  nata - to arrange
arta - money
sata - tobacco

Final position:  papat - four
cepet - quick
luput - miss/wrong

= /d/ =

The Javanese sound /d/ is a dental voiced stop or plosive produced by putting the tongue tip against the upper teeth in order to completely shut off the stream of air. Then the air is released. It is pronounced without aspiration. The Javanese sound /d/ can occur in initial, medial and final positions. In initial and medial positions the Javanese sound /d/ are plosives. In a final position it is a stop.

Examples:
Initial position:  duwe - to have/to posses
dawa - iong
dandan - to dress
Medial position: wedang - drink
            nuding - to point
            ngidung - to sing

Final position: ragad - coast
                jagad - world
                joged - Javanese dance

= /tʰ/ =

The Javanese sound /tʰ/ is an alveolar voiceless stop pronounced by putting the tongue tip against the alveolum then released. It is a typical Javanese sound pronounced with a puff of air accompanying it. This sound occurs in initial and medial positions. It does not occur in a final position.

Examples:

Initial position: thukul - to grow
                 thiwul - a kind of cake
                 thuthuk - a hit

Medial position: cethak - palate
                 kethak - coconut oil waste
                 methuk - to pick up

= /dʰ/ =

The Javanese sound /dʰ/ is an alveolar voiced stop pronounced by putting the tongue tip against the alveolum then released. The vocal cords are vibrating.
It corresponds to the English /d/ in 'done' but it is pronounced with aspiration. It occurs in initial and medial positions. It does not occur in a final position.

Examples:

Initial position:  
dada  -  breast  
dayoh  -  guest  
dawuh  -  to command

Medial position:  
pondok  -  a house  
pundak  -  s shoulder  
medun  -  to step down

= /k/=  

The Javanese sound /k/ is a velar voiceless plosive or stop pronounced by putting the back of the tongue against the velum then released. This sound is pronounced without a puff of air. It occurs in initial, medial and final positions. In initial and medial positions the Javanese sound /k/ are plosives. In final position it is represented by a glottal stop.

Examples:

Initial position:  
kula  -  I, me  
kepriye  -  how  
kurang  -  less

Medial position:  
mikir  -  to think  
makarya  -  working  
pakan  -  animal food
Final position : kampak - axe  
ngajak - to invite  
mandek - to stop  

= / ɡʰ / =

The Javanese sound / ɡʰ / is a velar voiced plosive or stop with the tongue in the same position as for / k / . The vocal cords are vibrating. It is an aspirated sound produced with a puff of air accompanying it. The Javanese sound / ɡʰ / occurs in initial, medial and final positions. In initial and medial positions the Javanese sound / ɡʰ / are plosives. In a final position it is pronounced as the stop / k / .

Examples :

Initial position : gula - sugar  
gajah - elephant  
gelas - a glass  

Medial position : sega - cooked rice  
sugih - rich  
bagus - handsome  

Final position : bedug - a big drum  
bledug - dust  
glidig - to work
b. Affricates:

\[ \begin{align*}
/ \ddot{c} / \\
/ \ddot{j} / \\
= / c / =
\end{align*} \]

The Javanese sound / \ddot{c} / is an alveolar voiceless affricate pronounced by putting the tongue blade against the alveolus. The vocal cords are not vibrating. In producing the Javanese sound / \ddot{c} / the muscles of our mouth are relaxed and it is produced without the protusion of the lips. This sound occurs in initial and medial positions. In Javanese there is no final / \ddot{c} / sound.

Examples:

Initial position: campuran - mixture
coba - try
cedak - near

Medial position: pecah - broken
kacang - beans
becak - tricycle

= / \ddot{j} / =

The Javanese sound / \ddot{j} / is an alveolar voiced affricate. It differs from / c / only by being voiced. The vocal cords are vibrating. In producing the Javanese sound / \ddot{j} / the muscles of the mouth are relaxed and without the protusion of the lips. The Javanese sound / \ddot{j} / does not occur in a final position.
Examples:

Initial position:  jujur - honest
                 jaran - horse
                 jempol - thumb

Medial position:  pajek - tax
                  ngajak - to invite
                  ngunjuk - to drink

c. Fricatives: /s/ and /h/

= /s/ =

The Javanese sound /s/ is an alveolar voiceless fricative pronounced with the tongue tip close to the upper teeth.
The air makes a hissing sound as it passes between the tongue tip and the teeth. It occurs in initial, medial and final positions.

Examples:

Initial position:  sepi  - silent
                  sabar  - to be patient
                  segara - sea

Medial position:  bisa - can/be able to
                  isi - content
                  pisang - banana

Final position:  panas - hot
                 waras - healthy
                 beras - rice
= / h / =

The Javanese sound / h / is a velar voiced fricative. We produce / h / in the same way as taking our deep breath when we feel very tired or when a doctor wants to check our lungs. In initial and medial positions the sound / h / is voiced. In its final position it is voiceless.

Examples:

Initial position:  hambar - not tasty
                  hak     - possession
                  hargo   - mount

Medial position:  prahara - typhoon
                  wahana   - media
                  tahu     - soya bean cake

Final position:   wegah - not willing
                  butuh    - need
                  weruh    - to see

d. Glides:

   / r /     / y /     / w /

= / r / =

The Javanese sound / r / is an alveolar voiceless glide. The sound / r / is pronounced like a vowel sound. The tip of the tongue is turned up toward the teeth ridge but it does not come in contact with it. It is rolled. The sound / r / occurs in initial, medial and final positions.
Examples:

Initial position: rada - rather
rasa - taste
ruwet - complicated

Medial position: pira - how many/how much
kurang - less/not enough
marem - satisfied

Final position: seger - fresh
pasar - market
anyar - new

= / y / =

The Javanese sound / y / is a palatal voiceless glide. In pronouncing / y / we begin with the tongue blade towards the palate in the position of / i / vowel sound. Then the tongue glides smoothly into the position of the vowel which follows. The sound / y / occurs in initial and medial positions. It does not occur in a final position.

Examples:

Initial position: yasa - to make
yuda - war
yangko - a kind of Javanese cake

Medial position: ayu - beautiful
kayu - wood
layon - a corpse
The Javanese sound / w / is a bilabial voiceless glide produced by the rounding of both lips and then the tongue glides into the position of the vowel which follows. The Javanese sound / w / occurs in initial and medial positions. In Javanese there is no final / w / sound.

Examples:
Initial position:  wasis    - clever
                 wingi    - yesterday
                 wungu    - to get up

Medial position:  kawruh    - knowledge
                 iwak      - fish
                 luwih     - more than

e. Nasals:
   / m /    / n /    / ny /    / ny /    / r /

   = / m / =

The Javanese sound / m / is a bilabial voiced nasal. It is pronounced with the lips against each other. The tongue is relaxed. The air goes out through the nose. We can find this sound in initial, medial and final positions.
Examples:

Initial position: mangan - to eat
    murah - cheap
    mesem - to smile

Medial position: tamu - guest
    sumanak - friendly
    lima - five

Final position: adem - cool
    mendem - to bury
    pelem - mango

= / n / =

The Javanese sound / n / is an alveolar voiced nasal. It is pronounced with the tip of the tongue against the alveolus and the air goes out through the nose. It occurs in initial, medial and final positions.

Examples:

Initial position: napas - breath
    nembung - to ask
    numpak - to ride

Medial position: rene - come here
    peni - beautiful
    dana - to contribute a fund
Final position : papan - place
dalan - road/way
kangsen - to make a date

= / ny / =

The Javanese sound / ny / is a palato alveolar voiced nasal. It is pronounced with the front of the tongue against the hard palate, then the tongue glides into the vowel which follows. The air goes out through the nose. It occurs in initial and medial positions but not in its final position.

Examples:

Initial position : nyoba - to try
nyuwun - to ask for
nyilih - to borrow

Medial position : nganyang - to bargain
nyenyet - silently
menyang - to go to

= / η / =

The Javanese sound / η / is a velar voiced nasal. It is pronounced with the back of the tongue against the velum and the air goes out through the nose. The vocal cords are vibrating. The sound / η / occurs in initial, medial and final positions.
Examples:

Initial position: ngandel - to believe
                 ngantuk - sleepy
                 ngoyak - to run after

Medial position: sanga - nine
                 krungu - to hear
                 tangi - to get up

Final position: dluwang - paper
                 lawang - door
                 irung - nose

f. Lateral:

        /= l /=

The Javanese sound /l/ is an alveolar voiceless lateral. It is pronounced with the tongue tip against the alveolum. The air goes out through the mouth but along the sides of the tongue. The air does not go out over the top of the tongue. The sound /l/ occurs in initial, medial and final positions.

Examples:

Initial position: lero - two
                 lenga - oil
                 luwes - attractive

Medial position: bali - to come back
                 kalung - necklace
                 beling - broken glass
Final position: gangsal - five  
dengkul - knee  
sekul - cooked rice

**E. CLUSTERS**

Javanese allows many clusters of consonants. In this chapter the Javanese clusters will be presented. I would like to list the clusters alphabetically, starting from 'bl' and it will be ending in 'wr'. The clusters may be in an initial as well as in a medial position, but never in a final position.

**THE JAVANESE CLUSTERS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Cluster</th>
<th>Initial Position</th>
<th>Medial Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>/ bl /</td>
<td>blumbang - pond</td>
<td>nyoblos - to punch a hole</td>
</tr>
<tr>
<td>2.</td>
<td>/ br /</td>
<td>brambang - onion</td>
<td>nyabrang - to cross</td>
</tr>
<tr>
<td>3.</td>
<td>/ cl /</td>
<td>clana - trousers</td>
<td>kocluk - mad</td>
</tr>
<tr>
<td>4.</td>
<td>/ cr /</td>
<td>crita - story</td>
<td>kecrek - a Javanese musical instrument</td>
</tr>
<tr>
<td>5.</td>
<td>/ dl /</td>
<td>dluwang - paper</td>
<td>kedlarung - to go too far</td>
</tr>
<tr>
<td>6.</td>
<td>/ dr /</td>
<td>driya - feeling</td>
<td>adreng - enthusiastic</td>
</tr>
<tr>
<td>7.</td>
<td>/ gl /</td>
<td>gladi - training</td>
<td>ngegla - clearly seen</td>
</tr>
<tr>
<td>8.</td>
<td>/ gr /</td>
<td>grobag - wooden car</td>
<td>manggrok - to stop</td>
</tr>
<tr>
<td>9.</td>
<td>/ jl /</td>
<td>jlantah - used coconut oil</td>
<td>anjlog - to jump down</td>
</tr>
<tr>
<td>10.</td>
<td>/ jr /</td>
<td>jrambah - veranda</td>
<td>ajrih - to be afraid of</td>
</tr>
<tr>
<td>11.</td>
<td>/ kl /</td>
<td>klelep - drowned</td>
<td>teklek - wooden slipper</td>
</tr>
<tr>
<td>12.</td>
<td>/ kr /</td>
<td>krasa - to feel</td>
<td>ekrah - lifter</td>
</tr>
<tr>
<td>13.</td>
<td>/ ml /</td>
<td>mlayu - to run</td>
<td>semlempit - slipped in</td>
</tr>
<tr>
<td>14.</td>
<td>/ mr /</td>
<td>mripat - eyes</td>
<td>lumrah - natural</td>
</tr>
<tr>
<td></td>
<td>Initial Position</td>
<td>Medial Position</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>/nl/</td>
<td>nlesih - to clarify</td>
<td>panlesih - clearing</td>
</tr>
<tr>
<td>16.</td>
<td>/nr/</td>
<td>nrima - to accept</td>
<td>panrimane - one's understanding</td>
</tr>
<tr>
<td>17.</td>
<td>/ngl/</td>
<td>nglacak - to trace</td>
<td>panglangine - the swimming</td>
</tr>
<tr>
<td>18.</td>
<td>/ngr/</td>
<td>ngrumat - to keep well</td>
<td>pangramane - the rebelling</td>
</tr>
<tr>
<td>19.</td>
<td>/pl/</td>
<td>playon - running</td>
<td>kupluk - a cap</td>
</tr>
<tr>
<td>20.</td>
<td>/pr/</td>
<td>priya - a man</td>
<td>saprene - up till now</td>
</tr>
<tr>
<td>21.</td>
<td>/sl/</td>
<td>slendang - shawl</td>
<td>angslup - to set</td>
</tr>
<tr>
<td>22.</td>
<td>/sr/</td>
<td>srawung - to get along with</td>
<td>pasrah - to leave up to</td>
</tr>
<tr>
<td>23.</td>
<td>/tl/</td>
<td>tliti - thorough</td>
<td>ketlusur - slipped</td>
</tr>
<tr>
<td>24.</td>
<td>/tr/</td>
<td>traju - small scales</td>
<td>cantrik - pupil</td>
</tr>
<tr>
<td>25.</td>
<td>/wr/</td>
<td>wreda - old</td>
<td>Kawruh - knowledge</td>
</tr>
</tbody>
</table>

C. VOWELS

The following is a Javanese vowel chart; each individual vowel will be described in detail. I would like to start with the description of the high front vowel /i/ and end with the low back vowel /o/. The materials found in this chapters are partly based on The Pronunciation of American English for Teachers of English as a Second Language, by Betty J. Wallace, and partly based on Ilmu Runyi Bahasa, written by Marsono and published by Fakultas Sastra dan Kebudayaan, Universitas Gadjah Mada.
1. THE JAVANESE VOWEL SOUNDS

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Central</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrounded</td>
<td></td>
<td>Rounded</td>
</tr>
<tr>
<td>High</td>
<td>/i/ iki</td>
<td></td>
<td>/u/ upa</td>
</tr>
<tr>
<td>Mid</td>
<td>/e/ eling</td>
<td>/ə/ emoh</td>
<td>/o/ loro</td>
</tr>
<tr>
<td></td>
<td>/ɛ/ edi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>/a/ anyar</td>
<td></td>
<td>/ɔ/ obor</td>
</tr>
</tbody>
</table>

2. Description of the individual Javanese vowel sound.

\[ = /i/ = \]

The Javanese sound /i/ is a high front vowel, that is, the tongue is high in the front of the mouth cavity. The muscles of the tongue and the throat are tense. The lips are unrounded. It is a short /i/.

Examples:

Initial position: iki - this
ijo - green
iwak - fish
Medial position: saiki - now
                punika - this/that
                uninga - to know

Final position: upami - for example
                mangerti - to understand
                klambi - dress/coat

= / I / =

The Javanese sound / I / is also a high front vowel but it is pronounced with the tongue in a slightly lower position than for / i / . The muscles of the tongue, the throat and the lips are relaxed. The difference of these two sounds is produced by a difference in the tongue position. This / I / is always a short / I /. It is only found in medial position.

Examples:
    kulit - skin
    cilik - small/little
    mikir - to think
    gelis - hurry

= / ɛ / =

The Javanese sound / ɛ / is a mid front vowel, that is, the front part of the tongue is not high nor low in the front of the mouth cavity.

Examples:
Initial position: eling - to remember
esuk - morning
enak - delicious

Medial position: kepengin - to wish
kepenak - comfortable
sampeyan - you

Final position: sepele - simple
lambe - lip
sae - good

= /ɛ/ =

The Javanese sound /ɛ/ is a mid front vowel, that is, the front part of the tongue is not high nor low in the front of the mouth cavity but lower than that for /i/. The muscles of the throat are relaxed. The lips are unrounded. There is no final /ɛ/.

Examples:
Initial position: edi - beautiful
lepen - river
sekeng - poor

Medial position: remeh - of little value
celeng - swine
kejengkelan - irritation
= / å / =

The Javanese sound / å / is a mid central vowel, that is, the middle of the tongue is in the center of the mouth cavity. The mouth is not open very wide and the muscles of the tongue and the throat are relaxed. The lips are not rounded.

Examples:

Initial position:  empuk  - soft
                 emban  - servant
                 emas  - gold

Medial position:  saenggon  - one place
                  kesenengan  - hobby
                  kebeneran  - by chance

Final position:   mekaten  - like this
                  apunten  - excuse
                  sepeken  - one week

= / æ / =

The Javanese sound / æ / is a low central vowel, that is, the middle of the tongue is low in the mouth cavity. The mouth opens rather wide. The lips are not rounded.
Examples:

Initial position: anyar - new
ayu - beautiful
aran - name/called

Medial position: palagan - fighting area
garapan - task
kesasar - to be lost

Final position: ora - no/not
jogan - floor
bayar - payment

= / u / =

The Javanese sound / u / is a high back vowel, that is, the back of the tongue is high in the back of the mouth cavity. The muscles of the tongue and the throat are tense. The lips are very rounded.

Examples:

Initial position: upaya - effort
udhu - contribution
udan - rain

Medial position: pitutur - advice
kurungan - cage
srawungan - friend

Final position: tau - to have done
mau - a little while ago
bau - shoulder
The Javanese sound / o / is a mid back vowel, that is, the back of the tongue is midway between high and low positions in the back of the mouth cavity. The muscles of the tongue and the throat are tense and the lips are strongly rounded.

Examples:

Initial position: obah - to move
ora - no/not
dosa - sin

Medial position: pripun - how
pantun - paddy
medun - to go down

Final position: pindo - twice
bodo - stupid
maido - do not believe

= / œ / =

The Javanese sound / œ / is a low back vowel, that is, the back of the tongue is low in the back of the mouth cavity. The mouth is open and the lips are rounded.

Examples:
Initial position: obor - torch
    ana - exist
    aia - bad

Medial position: samana - that time
    sadasa - ten
    segara - sea

Final position: dina - day
    mega - cloud
    pinda - like

D. DIPHTHONGS

This part is an endeavour to study the Javanese diphthong. It is stated in "Fonetik" by Marsono (Fakultas Sastra dan Kebudayaan Universitas Gadjah Mada Yogyakarta) that diphthongs do not exist in the Javanese language. The absence of diphthong lead us to conclude that the English diphthongs are serious problems for the Javanese learning to speak English.
CHAPTER IV

A CONTRASTIVE STUDY OF THE ENGLISH AND

THE JAVANESE SOUND SYSTEMS

In this chapter the English sound system will be compared with that of the Javanese language. The procedure will cover the following steps:

1. The English consonants will be compared with that of the Javanese. The order will be as follows:
   a. The English stops or plosives, i.e. /pʰ/, /b/, /tʰ/, /d/, /kʰ/ and /ɡ/ will be compared with the Javanese /p/, /bʰ/, /t/, /d/, /tʰ/, /dʰ/, /k/ and /ɡʰ/.
   b. The English affricates, i.e. /ʃ/ and /ʒ/ will be compared with the Javanese /c/ and /j/.
   c. The English fricatives, i.e. /f/, /v/, /θ/, /ð/, /s/, /z/, /s/, /z/ and /h/ will be compared with the Javanese /s/ and /h/.
   d. The English nasals, i.e. /m/, /n/ and /ŋ/ will be compared with the Javanese /m/, /n/, /ny/ and /ŋ/.

62
e. The English glides, i.e. /r/, /y/ and /w/ will be compared with the Javanese /r/, /y/ and /w/.

f. The English lateral /l/ will be compared with the Javanese /I/.

2. The English clusters will be compared with that of the Javanese. I would like to arrange the comparison of the two clusters in the alphabetical sequence.

3. The English vowels will be compared with that of the Javanese. The order will be as follows:

a. The English high front vowels, i.e. /i/ and /I/ will be compared with the Javanese /i/ and /I/.

b. The English mid front vowels, i.e. /e/ and /æ/ will be compared with the Javanese /e/ and /æ/.

c. The English mid central vowel /ə/ will be compared with the Javanese /ə/.

d. The English low central vowel /ɔ/ will be compared with the Javanese /ɔ/.

e. The English high back vowels /u/ and /U/ will be compared with the Javanese /u/.

f. The English back vowel /o/ will be compared with the Javanese /o/.

g. The English low back vowel /ɔ/ will be compared with the Javanese /ɔ/. 
A. CONSONANTS

The following are the English consonants compared with that of the Javanese.

1. **Stops or Plosives.**

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/pʰ/ - puppy</td>
<td>/p/ - pipi</td>
</tr>
</tbody>
</table>

The English /p/ is a voiceless bilabial plosive or stop. It is pronounced with a puff of air accompanying it. The English /p/ is pronounced differently in different position. After /s/ in the cluster /sp/ there is no puff of air accompanying it. The initial and medial positions of /p/ are plosives. The final /p/ is a stop or a plosive.

The Javanese sound /p/ is also a voiceless bilabial plosive or stop. It is pronounced without a puff of air accompanying it. The initial and medial /p/ are plosives. The final /p/ is a stop.

**Conclusion:**

The English /p/ is a problem for the Javanese learning to speak English because of the different way of pronouncing it, i.e. the English /p/ is aspirated but not the one of Javanese.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ b / - Baby, Bob</td>
<td>/ b\textsuperscript{h} / - bapak, ibu</td>
</tr>
</tbody>
</table>

The English / b / is a voiced bilabial plosive. It is pronounced without aspiration in initial, medial as well as final position. In other words it is pronounced in the same way at any position.

The Javanese / b\textsuperscript{h} / is also a voiced, bilabial plosive but it is pronounced with aspiration. In the final position the / b / is pronounced as a stop / p /.

Conclusion:

The English / b / is a problem for the Javanese learning to speak English because of the different way of pronouncing it, i.e. the English / b / is not aspirated but the Javanese / b / is an aspirated one.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ t / - tata, bata, tobat</td>
<td></td>
</tr>
</tbody>
</table>

The Javanese / t / is a voiceless dental stop. In all positions it is not aspirated. It is always pronounced as a stop in its final position.
Conclusion:

The unaspirated Javanese / t / sound does not occur in English.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>~</td>
<td>/ d / - duwe</td>
</tr>
<tr>
<td></td>
<td>The Javanese sound / d / is a voiced dental stop. In all positions it is not aspirated. It is always pronounced as a stop at the end of a syllable.</td>
</tr>
</tbody>
</table>

Conclusion:

The unaspirated Javanese / d / sound does not exist in English.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ tʰ / - ten, letter</td>
<td>/ tʰ / - thukul, thiwul</td>
</tr>
<tr>
<td>The English / tʰ / is a voiceless alveolar plosive or stop. It is pronounced with aspiration. When / tʰ / is followed by a vowel in a stressed syllable as in 'taken' (tʰəkən), it is aspirated in the same way as / p /.</td>
<td>The Javanese / tʰ / is a voiceless alveolar stop. It is pronounced with aspiration. In pronouncing the Javanese / tʰ / the tongue tip is against the post alveolus. It does not exist in a final position.</td>
</tr>
</tbody>
</table>
In unstressed positions as in 'letter' /ɛtə/, 'quantity' /ˈkwɒntətɪʃən/, also after /s/ as in 'step' and 'stood', /t/ is pronounced with no aspiration. At the end of a word /t/ is either a stop or a plosive.

Conclusion:

The English /tʰ/ is not a serious problem for the Javanese learning to speak English because of the similar place of articulation. It is a problem when it is final, because the Javanese /tʰ/ does not exist in final position.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/d/ - decided</td>
<td>/dʰ/ - dada</td>
</tr>
<tr>
<td>The English /d/ is a voiced alveolar stop pronounced without aspiration.</td>
<td>The Javanese /dʰ/ is also a voiced alveolar stop but it is pronounced with aspiration. It does not exist in a final position</td>
</tr>
</tbody>
</table>

Conclusion:

The English /d/ in its final position is indeed a problem for the Javanese learning to speak English, since it is a voiced plosive.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ kʰ / - cook, kicking</td>
<td>/ k / - kuku, kaku</td>
</tr>
<tr>
<td>The English / k / is a voiceless velar plosive. It is aspirated in initial position. In the cluster / sk /, / k / is not aspirated. In a final position it is pronounced either as a stop or as a plosive.</td>
<td>The Javanese / k / is a voiceless velar plosive. It is not aspirated in all positions. In a final position the / k / is pronounced as a glottal stop.</td>
</tr>
</tbody>
</table>

**Conclusion:**

The English / k / is a problem for the Javanese learning to speak English, because of the different way of pronouncing it, i.e. the English / k / is aspirated but the Javanese one is not.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ g / - go, bigger, bag</td>
<td>/ gʰ / - guru, maguru</td>
</tr>
<tr>
<td>The English / g / is a voiced velar plosive. It is pronounced without aspiration.</td>
<td>The Javanese / g / is also a voiced velar plosive, but it is pronounced with aspiration. In a final position it is pronounced as a stop / k /.</td>
</tr>
</tbody>
</table>

**Conclusion:**

The English / g / is a problem for the Javanese learning to speak English because of the different way of pronouncing it.
2. Affricates:

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ʻ/ - chair, church</td>
<td>/c/ - ciri, cucur</td>
</tr>
<tr>
<td>The English /c/ is a voiceless palato alveolar affricate pronounced with the protrusion of the lips.</td>
<td>The Javanese /c/ is a voiceless alveolar affricate. It is pronounced without the protrusion of the lips.</td>
</tr>
</tbody>
</table>

Conclusion:
The English /ʻ/ is a problem for the Javanese learning to speak English because the different place of articulation and the different way of pronouncing the sound.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/j/ - joke</td>
<td>/j/ - jala, beja</td>
</tr>
<tr>
<td>The English /j/ is a voiced palato alveolar affricate pronounced with the protrusion of the lips.</td>
<td>The Javanese /j/ is a voiced alveolar affricate. It is pronounced without the protrusion of the lips.</td>
</tr>
</tbody>
</table>

Conclusion:
**Conclusion:**

The English / ë / is a problem for the Javanese learning to speak English because of the different place of articulation and the different way of pronouncing the sound.

3. **Fricatives:**

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ f / - fine, coffee, philosophy</td>
<td>-</td>
</tr>
</tbody>
</table>

The English / f / is a voiceless, labio dental fricative.

**Conclusion:**

The English / f / is a problem for the Javanese learning to speak English because it does not exist in the Javanese language.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ ŋ / - very, never, active</td>
<td>-</td>
</tr>
</tbody>
</table>

The English / ŋ / is a voiced labio dental fricative.
Conclusion:

The English / v / is a problem for the Javanese learning to speak English because it does not exist in the Javanese language.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ v / - thing, method, bath</td>
<td>-</td>
</tr>
</tbody>
</table>

The English / θ / is a voiceless dental fricative.

Conclusion:

The English sound / θ / is a problem for the Javanese learning to speak English because it does not exist in the Javanese language.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ θ / - this, other, clothes</td>
<td>-</td>
</tr>
</tbody>
</table>

The English / ꞌ / is a voiced dental fricative.

Conclusion:

The English sound / ꞌ / is a problem for the Javanese learning to speak English because it does not exist in the Javanese language.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ s / - cinema, lesson</td>
<td>/ s / - sasi, besus</td>
</tr>
<tr>
<td>The English / s / is a</td>
<td>The Javanese / s / is a</td>
</tr>
<tr>
<td>voiceless alveolar</td>
<td>voiceless alveolar fricative.</td>
</tr>
<tr>
<td>fricative.</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion:

The English / s / is not a problem for the Javanese learning to speak English.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ z / - zoo, reason</td>
<td></td>
</tr>
<tr>
<td>The English / z / is a</td>
<td></td>
</tr>
<tr>
<td>voiced alveolar pricative.</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion:

The English / z / is a problem for the Javanese learning to speak English because it does not exist in the Javanese language.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɔ/ - ship, nation</td>
<td>-</td>
</tr>
<tr>
<td>The English /ɔ/ is a voiceless alveo-palatal fricative pronounced with the protrusion of the lips.</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion:**
The English /ɔ/ does not occur in the Javanese language, so it is a problem for the Javanese learning to speak English.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ڇ/ - occasion, measure</td>
<td>-</td>
</tr>
<tr>
<td>The English /ڇ/ is a voiced palatal fricative.</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusion:**
The English /ڇ/ does not exist in the Javanese language, so it is a problem for the Javanese learning to speak English.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ h / - how, behave</td>
<td>/ h / - huru hara, prahara</td>
</tr>
<tr>
<td>The English / h / is a</td>
<td>The Javanese / h / is a</td>
</tr>
<tr>
<td>voiceless velar fricative.</td>
<td>voiced velar fricative. It</td>
</tr>
<tr>
<td>It does not exist in its</td>
<td>occurs in initial, medial as</td>
</tr>
<tr>
<td>final position.</td>
<td>well as final position. It</td>
</tr>
<tr>
<td></td>
<td>is voiceless in a final</td>
</tr>
<tr>
<td></td>
<td>position.</td>
</tr>
</tbody>
</table>

Conclusion:

The English / h / is not a problem for the Javanese learning to speak English.

4. Nasals

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ m / - men, common, limb</td>
<td>/ m / - mara, rama, merem</td>
</tr>
<tr>
<td>The English / m / is a</td>
<td>The Javanese / m / is also</td>
</tr>
<tr>
<td>voiced bilabial nasal. The</td>
<td>a voiced bilabial nasal, pronounced in the</td>
</tr>
<tr>
<td>lips are completely closed.</td>
<td>same way as the English / m / .</td>
</tr>
<tr>
<td>The tongue is relaxed. The</td>
<td></td>
</tr>
<tr>
<td>air goes out through the</td>
<td></td>
</tr>
<tr>
<td>nose.</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion:

The English / m / is not a problem for the Javanese learning to speak English.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/n/ - nine, know, annoy</td>
<td>/n/ - nata, menawa</td>
</tr>
<tr>
<td>The English /n/ is a voiced alveolar nasal.</td>
<td>The Javanese /n/ is also a voiced alveolar nasal pronounced in the same way as the English /n/.</td>
</tr>
</tbody>
</table>

**Conclusion:**
The English /n/ is not a problem for the Javanese learning to speak English.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ny/ - new, onion, nuisance</td>
<td>/ny/ - nyasar, menyang munyuk</td>
</tr>
<tr>
<td>This sound is a voiced palato alveolar nasal.</td>
<td>This sound is also a voiced palato alveolar nasal.</td>
</tr>
</tbody>
</table>

**Conclusion:**
The English /ny/ is not a problem for the Javanese learning to speak English.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ŋ/ - long, language</td>
<td>/ŋ/ - ngombe, mangan, kembang</td>
</tr>
<tr>
<td>The English /ŋ/ is a voiced velar nasal. It occurs in medial and final positions.</td>
<td>The Javanese /ŋ/ is also a voiced velar nasal. It occurs in initial, medial as well as final positions.</td>
</tr>
</tbody>
</table>

**Conclusion:**
The English /ŋ/ is not a problem for the Javanese learning to speak English.

5. **Glides**

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/r/ - room, sorry, wrong</td>
<td>/r/ - rasa, para</td>
</tr>
<tr>
<td>The English /r/ is an unrolled voiced alveolar glide.</td>
<td>The Javanese /r/ is a rolled voiced alveolar glide.</td>
</tr>
</tbody>
</table>

**Conclusion:**
The English /r/ is a problem for the Javanese learning to speak English as the English /r/ is not rolled.
<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ y / - yes</td>
<td>/ y / - yasa</td>
</tr>
<tr>
<td>The English / y / is a voiced palatal glide. There is no final / y /.</td>
<td>The Javanese / y / is a voiceless palatal glide. There is no final / y /.</td>
</tr>
</tbody>
</table>

Conclusion:
The English / y / may be a problem for the Javanese learning to speak English because of the different way of pronouncing it.

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ w / - win, when</td>
<td>/ w / - wani, wedang</td>
</tr>
<tr>
<td>The English / w / is a voiced bilabial glide pronounced with rounded lips.</td>
<td>The Javanese / w / is a voiceless bilabial glide pronounced with spread lips.</td>
</tr>
</tbody>
</table>

Conclusion:
The English / w / is a problem for the Javanese learning to speak English because of the different way of pronouncing it. The English / w / is voiced while the Javanese / w / is voiceless.
6. Lateral

<table>
<thead>
<tr>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/l/ - little, tall</td>
<td>/l/ - lali, wolu</td>
</tr>
<tr>
<td>The English /l/ is a</td>
<td>The Javanese /l/ is a</td>
</tr>
<tr>
<td>voiceless alveolar</td>
<td>voiceless alveolar</td>
</tr>
<tr>
<td>lateral.</td>
<td>lateral.</td>
</tr>
</tbody>
</table>

Conclusion:
The English /l/ is not a problem for the Javanese learning to speak English because of the manner of producing those two sounds are not different.

B. CLUSTERS

We have noticed in the previous chapters that English allows many clusters and so does the Javanese language. The following is a list of English clusters compared with those of the Javanese language.

It is a presentation of the English clusters in initial, medial and final positions, if any, compared with the Javanese ones in initial and medial positions.
<table>
<thead>
<tr>
<th>Sound</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
<th>Initial</th>
<th>Medial</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ bl /</td>
<td>bland</td>
<td>oblong</td>
<td>bubble</td>
<td>blumbang</td>
<td>cubluk</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>blade</td>
<td>publish</td>
<td>trouble</td>
<td>blarak</td>
<td>nabluk</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>blue</td>
<td>public</td>
<td>table</td>
<td>bluluk</td>
<td>ceblok</td>
<td>-</td>
</tr>
<tr>
<td>/ br /</td>
<td>brand</td>
<td>umbrella</td>
<td>-</td>
<td>brambang</td>
<td>ambruk</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>breed</td>
<td>library</td>
<td>-</td>
<td>brewok</td>
<td>ambrol</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>breast</td>
<td>embrace</td>
<td>-</td>
<td>bruwet</td>
<td>bubruk</td>
<td>-</td>
</tr>
<tr>
<td>/ gl /</td>
<td>glass</td>
<td>Anglo</td>
<td>eagle</td>
<td>gladi</td>
<td>joglo</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>glue</td>
<td>neglect</td>
<td>burgle</td>
<td>glagah</td>
<td>ngegla</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>glove</td>
<td>burglar</td>
<td>angle</td>
<td>giatik</td>
<td>Ngaglik</td>
<td>-</td>
</tr>
<tr>
<td>/ gr /</td>
<td>grass</td>
<td>imigrate</td>
<td>-</td>
<td>grobak</td>
<td>sigrek</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>grow</td>
<td>migration</td>
<td>-</td>
<td>grabah</td>
<td>sagrobak</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>green</td>
<td>engross</td>
<td>-</td>
<td>griya</td>
<td>sagriya</td>
<td>-</td>
</tr>
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<td>/ kl /</td>
<td>class</td>
<td>tackling</td>
<td>tackle</td>
<td>klasa</td>
<td>dingklik</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>clerk</td>
<td>cycling</td>
<td>suckle</td>
<td>klapa</td>
<td>m kalepat</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>clue</td>
<td>picking</td>
<td>jackle</td>
<td>kliwat</td>
<td>sakloron</td>
<td>-</td>
</tr>
<tr>
<td>/ kr /</td>
<td>cross</td>
<td>across</td>
<td>-</td>
<td>krasa</td>
<td>jangkrik</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>crown</td>
<td>secret</td>
<td>-</td>
<td>krama</td>
<td>cakruck</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>cry</td>
<td>concrete</td>
<td>-</td>
<td>kramas</td>
<td>ekrak</td>
<td>-</td>
</tr>
<tr>
<td>/ pl /</td>
<td>plural</td>
<td>implicite</td>
<td>-</td>
<td>playon</td>
<td>keplayu</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>place</td>
<td>aeroplane</td>
<td>-</td>
<td>plorodan</td>
<td>semplah</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>please</td>
<td>sampling</td>
<td>-</td>
<td>plerok</td>
<td>nyempluk</td>
<td>-</td>
</tr>
<tr>
<td>/ pr /</td>
<td>price</td>
<td>appreciate</td>
<td>-</td>
<td>priya</td>
<td>saprene</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>pride</td>
<td>approach</td>
<td>-</td>
<td>prayoga</td>
<td>kepriye</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>proof</td>
<td>express</td>
<td>-</td>
<td>prunan</td>
<td>kepranan</td>
<td>-</td>
</tr>
<tr>
<td>/ sl /</td>
<td>sleep</td>
<td>asleep</td>
<td>-</td>
<td>slamet</td>
<td>angslup</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>slice</td>
<td>unsleepy</td>
<td>-</td>
<td>slulup</td>
<td>menslep</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>slow</td>
<td>Brussle</td>
<td>slasa</td>
<td>Meslomot</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>/lk/</td>
<td>-</td>
<td>milky</td>
<td>milk</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>siky</td>
<td>silk</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hulking</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>/tr/</td>
<td>trade</td>
<td>introduce</td>
<td>centre</td>
<td>trenyuh</td>
<td>ketrucut</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>trace</td>
<td>entrance</td>
<td>-</td>
<td>trima</td>
<td>ketrajang</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>truth</td>
<td>attract</td>
<td>-</td>
<td>tratag</td>
<td>satru</td>
<td>-</td>
</tr>
<tr>
<td>/sw/</td>
<td>swear</td>
<td>unsworn</td>
<td>-</td>
<td>swara</td>
<td>diswarani</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>sweep</td>
<td>unswept</td>
<td>-</td>
<td>swarga</td>
<td>kaswargan</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>swim</td>
<td>unsweetened</td>
<td>-</td>
<td>swasana</td>
<td>kaswara</td>
<td>-</td>
</tr>
</tbody>
</table>

**Conclusion:**

English has clusters in initial, medial as well as final position. On the other hand the Javanese language does not have clusters in a final position. So, the clusters in a final position is a problem for the Javanese learning to speak English.

**C. V O W E L S**

The following is a comparison of the English vowels with those of the Javanese language.

The procedure is as follows:

1. The high, mid and low front vowels of the English will be compared with those of the Javanese.

2. The mid and low centre vowels of the English will be compared with those of the Javanese.

3. The high, mid and low back vowels of the English will be compared with those of the Javanese.
<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/i/</td>
<td>leave</td>
<td>iki, ijo, iwak</td>
</tr>
<tr>
<td></td>
<td>The English sound /i/ is a high front vowel and pronounced as a long vowel, especially when followed by a voiced consonant or final.</td>
<td>The Javanese sound /i/ is a high front vowel. It is always pronounced as a short vowel.</td>
</tr>
</tbody>
</table>

**Conclusion:**

The English long /i/ is a problem for the Javanese learning to speak English because the Javanese sound /i/ is short, while the English /i/ is long.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/I/</td>
<td>live</td>
<td>kulit, sakit, alit</td>
</tr>
<tr>
<td></td>
<td>The English /I/ is also a high front vowel, but it is pronounced with the tongue in a slight lower position than for /i/. The muscles of the tongue, throat and lips are relaxed. It is long when followed by a voiced consonant.</td>
<td>The Javanese /I/ is also a high front vowel. It is pronounced as the English /I/ but it is never long.</td>
</tr>
</tbody>
</table>
Conclusion:

The English /ɪ/ is a problem for the Javanese learning to speak English because it may be long when followed by a voiced consonant while the Javanese /ɪ/ is short.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/e/</td>
<td>gate</td>
<td>eling, esuk, enak</td>
</tr>
</tbody>
</table>

The English /e/ is a mid front vowel. It is represented by the symbol /e/ but the sound is pronounced as a diphthong /ei/, because during the pronunciation of the sound the tongue moves from mid position to high position in the front of the mouth cavity. This sound is always long.

Conclusion:

The English /e/ is a problem for the Javanese learning to speak English because it is always pronounced as a long vowel while the Javanese /e/ is short.
<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɛ/</td>
<td>get</td>
<td>ed, ker, semer</td>
</tr>
</tbody>
</table>

**Conclusion:**
The English /ɛ/ is not a problem for the Javanese learning to speak English because of the same manner of producing the sound.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/æ/</td>
<td>man</td>
<td>entek, suwék</td>
</tr>
</tbody>
</table>
Conclusion:
The sound /ə/ is not often used in the Javanese language. The English /ə/ may be a problem for the Javanese learning to speak English.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ə/</td>
<td>ago</td>
<td>emoh, lego, beno</td>
</tr>
</tbody>
</table>

The English sound /ə/ is a mid central vowel, that is, the middle of the tongue is in the centre of the mouth cavity. The mouth is not open very wide and the muscles of the tongue and the throat are relaxed. The lips are not rounded.

Conclusion:
The English sound /ə/ is not a problem for the Javanese learning to speak English because it is pronounced in the same manner.
<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ə/</td>
<td>not</td>
<td>aja, ana, apa</td>
</tr>
<tr>
<td></td>
<td>The English /ə/ is a low central vowel pronounced with the mouth open rather wide and the middle of the tongue is low in the mouth cavity. This sound is long when it is followed by a voiced consonant.</td>
<td>The Javanese /ə/ is also a low central vowel; it is always short.</td>
</tr>
</tbody>
</table>

Conclusion:
The English /ə/ followed by a voiced consonant may be a problem for the Javanese learning to speak English.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ʊ/</td>
<td>moon, cool, spoon</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>The English /ʊ/ is a high back vowel, that is, the back of the tongue is high in the back of the mouth cavity. The muscles of the tongue and the throat are tense.</td>
<td>-</td>
</tr>
</tbody>
</table>
Conclusion:
The English /u/ which is a long sound does not exist in the Javanese language; so it is a problem for the Javanese learning to speak English.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ u /</td>
<td>put, could</td>
<td>udan, ula, dudu</td>
</tr>
<tr>
<td></td>
<td>The English /u/ is another high back vowel, but it is a short one.</td>
<td>The Javanese short /u/ is similar with the English short /u/.</td>
</tr>
</tbody>
</table>

Conclusion:
There is no problem for the Javanese learning to speak English to pronounce this sound, for it is produced in the same way.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ o /</td>
<td>know, low</td>
<td>ora, loro, ijo</td>
</tr>
<tr>
<td></td>
<td>The English /o/ is a mid back vowel, that is, the back of the tongue is midway between the high and the low positions in the back of the mouth cavity. It is a long sound and pronounced as a diphthong /ou/.</td>
<td>The Javanese /o/ is also a mid back vowel pronounced with the same tongue position as that of the English but this sound is a short one.</td>
</tr>
</tbody>
</table>
Conclusion:

This sound is a problem for the Javanese learning to speak English because of the different way of pronouncing it.

<table>
<thead>
<tr>
<th>Sound</th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɔ/</td>
<td>Saw, law</td>
<td></td>
</tr>
</tbody>
</table>

The English sound /ɔ/ is a low back vowel, that is, the back of the tongue is low in the back of the mouth cavity. It is a long vowel.

Conclusion:

The English sound /ɔ/ does not exist in the Javanese language, so it is a problem for the Javanese learning to speak English.

D. DIPHTHONGS

It has been noticed in the previous chapter that English has diphthongs. On the other hand, diphthongs do not exist in the Javanese language. So, diphthongs are serious problems for the Javanese learning to speak English.
CHAPTER V
CONCLUSION AND SUGGESTIONS

A. CONCLUSION

After having compared the sound system of English and the one of the Javanese language, I would like to arrive at a list of the difficult phonemes of English that can be predicted as the pronunciation problems for the Javanese learning to speak English. It has been noticed in the previous chapters that some phonemes occur in the two languages and some do not. It has also been noticed that some phonemes of the two languages are alike and some others are different. The differences are either in the place or in the manner of articulation.

1. The English phonemes which do not exist in the Javanese language:
   b. Clusters: The final position clusters.
   c. Vowel: The long ones.
   d. Diphthongs: There is no diphthong in Javanese.

2. The phonemes of English which are different from the ones of the Javanese language as to their place of articulation:
a. Consonants: /t/, /c/, /j/.

b. Clusters: -

c. Vowels: -

3. The phonemes of English which are different from the ones of the Javanese language as to their manners of articulation:

a. Consonants:
   1) aspiration: /pʰ/, /b/, /tʰ/, /d/,
      /kʰ/, /g/.
   2) voicing: /h/, /y/, /w/, /l/.
   3) lip protrusion: /ɔ/, /o/.
   4) lip rounding: /w/.

b. Vowels:
   1) length: /i/, /ɪ/, /e/, /æ/, /u/, /ɔ/.
   2) gliding: /o/, /ɔ/.

It is not supposed that all the phonemes which appear to be contrastive will create the same amount of difficulties for the Javanese learning to speak English. Some phonemes are considered hard to learn and some others are not. But it can be predicted that the English phonemes which do not exist in the Javanese language are the most serious problems for the Javanese learning to speak English. The English phonemes which are produced in a different places and manners of articulation are also considered to be serious pronunciation problems.
I would like to conclude that the English phonemes I have just listed which do not exist in the Javanese language can be predicted as the greatest pronunciation problems for the Javanese learning to speak English. Next, the English phonemes which are produced in different places and manners of articulation are also problems.

In brief summary statement, then, the English phonemes which do not exist in the Javanese language and those which are different as to their places and manners of articulation are areas of difficulties which teachers should pay attention to in order to improve students' effective learning and teachers' efficient instructions.

B. SUGGESTIONS

In an attempt to gain maximum efficiency in teaching pronunciation to the Javanese learning to speak English, the problem sounds I have stated above are suggested to be the materials for pronunciation class practice.

Wishing to improve students' effective learning, I would like to present the way of teaching pronunciation by some experts to be considered. After that I will suggest an idea concerning pronunciation teaching mainly for the Javanese learning to speak English.
1. According to 'Structural Notes and Corpus' published by The Committee on the Language Program, American Council of Learned Societies, Washington D.C., :
"teaching pronunciation should be based on the following steps:

a. Choral mim - mem with double repetition.
b. Choral mim - mem with single repetition.
c. Individual mim - mem." 5)

2. According to Robert Lado in his book 'Language Teaching' :
"the materials of pronunciation teaching should be focused on problem sounds. We could find out the problem sounds by contrasting a description of the sound system of the target language with that of the first language." 6)

3. According to Charles C. Fries in his book 'Teaching and Learning English as a Foreign Language', :
"understanding as well as producing the stream of speech of English demands the mastering of the new sound system of both sound segments and of covering patterns. Therefore, many lessons contain exercises directed toward developing a flexibility of articulation and repeating new modes of pronunciation until they become habits." 7)

6) Robert Lado, op.cit., p. 75.
4. According to Don L.F. Nilsen and Alleen Pace Nilsen in their book 'Pronunciation Contrast in English':
"The path to correction of the problem sound lies in contrasting the two sounds until they can be readily distinguished both in learning and speaking. In this way the students are motivated to devote their energy and attention to the target language." 8)

5. According to me, in dealing with pronunciation difficulties it is advisable to take all the above ideas into consideration for the following reasons:

a. Robert Lado has stated how to find out the problem sounds to focus our teaching. In this way he has led us to a more effective students' learning.

b. Fries is good because he has directed us to the development of the habits of the target language.

c. The steps of teaching pronunciation stated in the 'Structural Notes and Corpus' has told us the precise procedure in teaching pronunciation. They have made pronunciation teaching easier to do.

d. Don L.F. Nilsen and Alleen Pace Nilsen ideas on teaching pronunciation are good because the students are motivated to devote their energy and attention to the target language.

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8) Don L.F. Nilsen and Alleen Pace Nilsen, Pronunciation Contrast in English, 1973, P. VII.
Here is an example of a problem sound for the Javanese learning to speak English presented in a pronunciation class.

/ʃ/ as in 'the', 'father', 'whether'.

Step 1: Please listen carefully and then repeat after me together.

(The following sentences are taken from Pronunciation Exercises in English for the Foreign Born, by M. Elizabeth Clarey and Robert J. Dixson).

1) Where is that leather bag?
   There it is - over there on the table.

2) Is this the way to the town?
   Yes! Go over that way!

3) Which tie shall I wear, this one or that one?
   I thin that one is better than this one.

4) Have you seen those brothers of mine?
   No, but there is your mother. Ask her about them.

5) Would you rather have this one or that one?
   Neither, thanks. I have had enough of both of them.

6) Can't we discuss this matter further at another time?
I would rather do it now. I don't know whether I'll be free later.

7) Where is your mother?
   This is the night she goes to the theatre with father.

8) Are there any other words to practice?
   We have finished all of them, but we have to practice our breathing exercises.

9) Are those boys brothers?
   Yes they are, although they don't look at all alike.

10) Do you like this weather?
   No, I loathe it. It is hard to breath in this weather. 9)

Step 2: Once again listen and repeat after me!

Step 3: Now I will give you a turn to repeat after me one by one!

If further explanation about the sound production is needed, the use of a chart and a profile diagram to compare the English sound and the similar Javanese sound is suggested.

**Example:**

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Javanese</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sound</strong></td>
<td>/ŋ/ the gun</td>
<td>/d/ degan</td>
</tr>
<tr>
<td><strong>Voicing</strong></td>
<td>voiced</td>
<td>voiced</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>continuant</td>
<td>stop</td>
</tr>
<tr>
<td><strong>Passage</strong></td>
<td>oral</td>
<td>oral</td>
</tr>
<tr>
<td><strong>Articulator</strong></td>
<td>tip of the tongue</td>
<td>tip of the tongue</td>
</tr>
<tr>
<td><strong>Point of articulation</strong></td>
<td>top teeth</td>
<td>teeth ridge</td>
</tr>
</tbody>
</table>

![Diagram showing pronunciation comparison](image)

**English**: /ŋ/ the gun

**Javanese**: /d/ degan

I hope this study will assist teachers of English to Javanese learners in dealing with pronunciation difficulties.
BIBLIOGRAPHY


Structural Notes and Corpus, A Basis for the Preparation of Materials to Teach English as a Foreign Language, published by The Committee on the Language Program, American Council of Learned Societies, Washington, D.C., 1952.
