

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

III.1 Presentation of the Data

III.1.1 Informant A

Table A.1 Substitution of Informant A

Substitution	Words	Sound produced
/n/ for /l/	hasil (result) apel (apple) botol (bottle) sepidol (felt-tip marker) kapal (ship)	hasin apen boton sepidon kapan
/h/ for /t/	lalat (fly) otot (muscle) obat (medicine)	lalah otoh obah
/h/ for /k/	rokok (cigarette) sobek (torn) bebek (duck) rak (shelf)	lokoh sobih bebeh lah
/n/ for /ng/	orang (people) kosong (empty) gudang (warehouse) memang (indeed)	olan koston gudan meman

	yang (that) burung (bird) andong (andong)	yan bulun andon
/l/ for /r/	rokok (cigarette) rak (shelf) rebana (tambourine) hari (day) pusara (grave) intisari (intisari) garuda (garuda) gorila (gorilla) lemari (cupboard) menara (tower) pigura (picture frame) seruni (seashore flower)	lokoh lah lebana hali pusala intisali galuda golila lemali menala pigula seluni
/n/ for /r/	telur (egg) cangkir (cup) ekor (tail) sumber (source) layar (scene) dokar (dokar)	telun cangkin ekon sumben layan dokan
/s/ for /c/	cacing (worm) kucing (cat)	sasing kusing

	celana (trousers)	selana
	cemara (casuarina tree)	semala
/h/ for /p/	top (superlative)	toh
/z/ for /j/	jika (if)	zika
	baju (blouse)	bazu
	majalah (magazine)	mazalah
	jala (net)	zala
/i/ for /c/	sobck (torn)	sobih
/u/ for /U/	telUr (egg)	telun
/i/ for /I/	cangklr (cup)	sangkin

Table A.1 shows phonemes which are substituted by Informant A.

- Phoneme *Apikoalveolar /n/* is substitute for *Apikoalveolar /l/* in final position.

[hasil] becomes [hasin]

[apel] becomes [apen]

[botol] becomes [boton]

[sepidol] becomes [sepidon]

[kapal] becomes [kapan]

- Phoneme *Laringal /h/* is substitute for *Apikodental /l/* in final position.

[lalat] becomes [lalah]

[otot] becomes [otoh]

[obat] becomes [obah]

- Phoneme *Laringal /h/* is substitute for *Dorsovelar /k/* in final position.
 - [rokok] becomes [lokoh]
 - [sobek] becomes [sobih]
 - [bebek] becomes [bebeh]
 - [rak] becomes [lah]

- Phoneme *Apikoalveolar /n/* is substitute for *Dorsovelar /ŋ /* in final position.
 - [oraŋ] becomes [olan]
 - [kosoŋ] becomes [koston]
 - [gudaŋ] becomes [gudan]
 - [memafŋ] becomes [meman]
 - [yaŋ] becomes [yan]
 - [buruŋ] becomes [bulun]
 - [andoŋ] becomes [andon]

- Phoneme *Apikoalveolar /l/* is substitue for *Apikoalveolar /r/* in initial and medial position.
 - [rokok] becomes [lokoh]
 - [rak] becomes [lah]
 - [rebana] becomes [lebana]
 - [hari] becomes [hali]
 - [pusara] becomes [pusala]
 - [intisari] becomes [intisali]
 - [garuda] becomes [galuda]
 - [gorila] becomes [golila]
 - [lemari] becomes [lemali]

[menara] becomes [menala]

[pigura] becomes [pigula]

[seruni] becomes [seluni]

Phoneme *Apikoalveolar /n/* is substitute for *Apikoalveolar /r/* in final position.

[telur] becomes [telun]

[cangkir] becomes [cangkin]

[ekor] becomes [ekon]

[sumber] becomes [sumben]

[layar] becomes [layan]

[dokar] becomes [dokan]

- Phoneme *Laminoalveolar /s/* is substitute for *Mediopalatal /c/* in initial and medial position.

[cacing] becomes [sasing]

[kucing] becomes [kusing]

[celana] becomes [selana]

[cemara] becomes [semala]

- Phoneme *Laringal /h/* is substitute for *Bilabial /p/* in final position.

[top] becomes [toh]

- Phoneme *Laminoalveolar /z/* is substitute for *Mediopalatal /j/* in initial and medial position.

[jika] becomes [zika]

[baju] becomes [bazu]

[majalah] becomes [mazalah]

[jala] becomes [zala]

- *Vokal Depan Tinggi Atas /i/* is substitute for *Vokal Depan Tinggi Bawah /ɪ/* and *Vokal Depan Madya Bawah /e/*.

[cangkiɾ] becomes [cangkin]

[sobək] becomes [sobih]

- *Vokal Belakang Tinggi Atas /u/* is substitute for *Vokal Belakang Tinggi Bawah /ʊ/*.

[telUr] becomes [telun]

Table A.2 Omission of Informant A

Omission	Words	Sound produced
/i/	delman (delman)	de:man
/k/	nyamuk (mosquito)	nyamu
	perusak (destructor)	pelusa
/r/	keluarga (family)	keluarga
	berlanjut (continue)	belanju
	sosro (sosro)	soso
	combantrin (combantrin)	combantin
/ʊ/	berlanjut (continue)	belanju

Informant A omits phoneme *Dorsovelar /k/* in final position, *Apikoalveolar /t/* in medial position, *Apikoalveolar /l/* in medial position, and *Apikodental /ʈ/* in final position.

[keluarga] becomes [keluaga]

[berlanjut] becomes [belanju]

[sosro] becomes [soso]

[combantrin] becomes [combantin]

[delman] becomes [de:man]

[berlanjut] becomes [belanju]

Table A.3 Addition of Informant A

Addition	Words	Sound produced
/ə/	krim (cream)	kəlim

Informant A adds *Vokal Tengah Madya /ə/* between *Dorsovelar /k/* and *Apikoalveolar /r/*.

[krim] becomes [kəlim]

Table A.4 Exceptional Words

Words	Sound produced
Parker (parker)	pakon
Wortel (carrot)	wotun
Bayer (bayer)	bayun

Informant A produces some disorder words which are not classified as one of those four phonologic disorder.

III.1.2 Informant B

Table B.1 Substitution of Informant B

Substitution	Words	Sound produced
/h/ for /r/	baru (new)	ba:hu?
/l/ for r/	utara (north)	u:ta:la
/h/ for /t/	tiba (arrive)	hi:ba
/w/ for /m/	madu (honey)	wa:du
/t/ for /c/	baca (read)	ba:ta
	kaca (glass)	ka:ta
/t/ for /j/	baja (steel)	ba:ta
/t/ for /k/	kata (word)	ta:ta
/b/ for /p/	payung (umbrella)	ba:yung
/n/ for /ng/	bunga (flower)	bu:na

Table above shows phonemes which are substituted by Informant B.

- Phoneme *Laringal* /h/ is substitute for *Apikoalveolar* /r/ in medial position.

[baru] becomes [ba:hu?]

- Phoneme *Apikoalveolar* /l/ is substitute for *Apikoalveolar* /r/ in medial position.

[utara] becomes [u:ta:la]

- Phoneme *Laringal /h/* is substitute for *Apikodental /t/* in initial position.
[tiba] becomes [hi:ba]
- Phoneme *Labiodental /w/* is substitute for *Bilabial /m/* in initial position.
[madu] becomes [wa:du]
- Phoneme *Apikodental /t/* is substitute for *Mediopalatal /c/* in medial position.
[baca] becomes [ba:ta]
[kaca] becomes [ka:ta]
- Phoneme *Apikodental /t/* is substitute for *Mediopalatal /j/* in medial position.
[baja] becomes [ba:ta]
- Phoneme *Apikodental /t/* is substitute for *Dorsovelar /k/* in initial position.
[kata] becomes [ta:ta]
- Phoneme *Bilabial /b/* is substitute for *Bilabial /p/* in initial position.
[payung] becomes [ba:yung]
- Phoneme *Apikoalveolar /n/* is substitute for *Dorsovelar /ŋ /* in medial position.
[buŋ a] becomes [bu:na]

Table B.2 Omission of Informant B

Omission	Words	Sound produced
All consonants	juga (also)	Uʔ :a
	kado (gift)	a: ɔ
	soto (soto)	ɔ ʔ : ɔ
	kerikil (pebble)	ʔ:l:l

	toko (shop)	ʊ ʔ : ʊ
	aku (I)	aʔ : ʊ
/n/	bulan (moon)	bu:la
	ikan (fish)	i:ta
	pohon (tree)	po:ho
/r/	roti (bread)	ʊ :ti
	gelar (title)	hð:la
	pinggir (side)	pɪŋ:ɡɪ
	garpu (fork)	ka:pu
/r/+/t/	rambut (hair)	am:pu
/s/	emas (gold)	ð:ma
	sapu (broom)	a:pu
/k/	perangko (stamp)	pð:laŋ :ʊ
/j/	jam (watch)	a:m
	baju (cloth)	ba:U

- All consonants are omitted as shown on first box of Table B2.

[juga] becomes [Uʔ :a]

[kado] becomes [a: ʊ]

[soto] becomes [ʊ ʔ : ʊ]

[kðrikɪ] becomes [ð:l:l]

[toko] becomes [ʊ ʔ : ʊ]

[aku] becomes [a ʔ : ʊ]

- Omits *Apikoalveolar /n/* in final position
 - [bulan] becomes [bu:la]
 - [ikan] becomes [i:ta]
 - [pohon] becomes [po:ho]
- Omits *Apikoalveolar /r/* in all position
 - [roti] becomes [ɔ :ti]
 - [gelar] becomes [hɔ:la]
 - [pinggir] becomes [pɪŋ:gl]
 - [garpu] becomes [ka:pu]
 - [rambut] becomes [am:pu]
- Omits *Laminoalveolar /s/* in initial and final position.
 - [ɔmas] becomes [ɔ:ma]
 - [sapu] becomes [a:pu]
- Omits *Dorsovelar /k/* in medial position
 - [pɔraḥ ko] becomes [pɔ:laḥ : ɔ]
- Omits *Mediopalatal /j/* in initial and medial position.
 - [jam] becomes [a:m]
 - [baju] becomes [ba:U]



III.1.3 Informant C

Table C.1 Substitution of Informant C

Substitution	Words	Sound Produced
/i/ for /I/	pinggir (side)	pinggir
	kerikil (pebble)	kerikil
	kelingking (little finger)	kelingking
/ɛ/ for /e/	ekor (tail)	eko
	eja (spell)	ɛjah
	enak (delicious)	ɛnak
/w/ for /U/	ukUr (measure)	uku
	urUs (take care)	u:us
	turUn (down)	tu:un
/ai/ for /aI/	pakai (use)	pakai
	tupal (squirrel)	tupai
	lalai (forget)	lalai
	nilai (value)	nilai
/au/ for /aU/	pulaU (island)	pulau
/z/ for /s/	iseng (just for fun)	izeng
/h/ for /k/	kakak (brother)	kakah
	rokok (cigarette)	rokoh
/h/ for /ʔ /	maʔ af (sorry)	mah:af
/n/ for /ŋ/	sunyi (quiet)	sunnih

/k/ for /d/	khidmat (respect)	khikmat
/s/ for /ʃ/	syarat (condition)	sarat
	syair (poem)	sair
	masyhur (famous)	masur
/z/ for /ʒ/	asyik (passionately)	azik
/c/ for /j/	baja	bajah

Table C.1 is substitution shown by Informant C

- *Vokal Depan Tinggi Atas /i/ is substitute for Vokal Depan Tinggi Bawah /ɪ/*
 - [pinggɪr] becomes [pinggir]
 - [kerikɪl] becomes [kerikil]
 - [kelingking] becomes [kelingking]
- *Vokal Depan Madya Bawah /ɛ/ is substitute for Vokal Depan Madya Atas /e/.*
 - [ekor] becomes [ɛko]
 - [eja] becomes [ɛjah]
 - [enak] becomes [ɛinak]
- *Vokal Belakang Tinggi Atas /u/ is substitute for Vokal Belakang Tinggi Bawah /ʊ/.*
 - [ukʊr] becomes [uku]
 - [urʊs] becomes [u:us]
 - [turuʊn] becomes [tu:un]
- */ai/ is substitute for Diftong Naik Menutup Maju /aɪ/*
 - [pakal] becomes [pakai]

[tupaI] becomes [tupai]

[lalaI] becomes [lalai]

[nilaI] becomes [nilai]

- /au/ is substitute for *Diftong Naik Menutup Mundur /aU/*

[pulaU] becomes [pulau]

- Phoneme *Laminoalveolar /z/* is substitute for *Laminoalveolar /s/* in medial position.

[iseng] becomes [izeng]

- Phoneme *Laringal /h/* is substitute for *Dorsovelar /k/* in final position.

[kakak] becomes [kakah]

[rokok] becomes [rokoh]

- Phoneme *Laringal /h/* is substitute for *Glotal /ʔ /* in medial position.

[maʔ af] becomes [mah:af]

- Phoneme *Apikoalveolar /n/* is substitute for *Medioplatatal /ñ/* in medial position.

[sunyi] becomes [sunnih]

- Phoneme *Dorsovelar /k/* is substitute for *Apikopalatal /d/* in medial position.

[khidmat] becomes [khikmat]

- Phoneme *Laminoalveolar /s/* is substitute for *Laminopalatal /ʃ/* in initial and medial position.

[syarat] becomes [sarat]

[syair] becomes [sair]

[masyhur] becomes [masur]

- Phoneme *Laminoalveolar /z/* is substitute for *Laminopalatal /j/* in medial position.

[asyik] becomes [azik]

- Phoneme *Medioplatatal /c/* is substitute for *Medioplatatal /j/* in medial position.

[baja] becomes [bacah]

Table C.2 Addition of Informant C

Addition	Words	Sound Produced
/h/	ada (exist)	adah
	baca (read)	bacah
	baja (steel)	bajah
	toko (shop)	tokoh
	kado (gift)	kadoh
	oto (car)	othoh
	sampai (arrive)	sampaih
	sunyi (quiet)	sunnih
	nasi (rice)	nasih

Informant C adds *Laringal /h/* in all position.

[ada] becomes [adah]

[baca] becomes [bacah]

[baja] becomes [bajah]

[toko] becomes [tokoh]

[kado] becomes [kadoh]

[oto] becomes [othoh]

[sampai] becomes [sampaiah]

[sunyi] becomes [sunnih]

[nasi] becomes [nasih]

Table C.3 Omission of Informant C

Omission	Words	Sound Produced
/r/	rata (flat)	:ata
	warna (colour)	wa:na
	segar (fresh)	sega:

Informant C omits *Apikoulveolar /r/* in all position.

[rata] becomes [:ata]

[warna] becomes [wa:na]

[segar] becomes [sega:]

Table C.4 Distinctive Feature

Minimal Pair	Word	Sound Produced
/c/ and /j/	baca (read)	bach
	baja (steel)	bach

III.1.4 Informant D

Table D.1 Substitution of Informant D

Substitution	Words	Sound Produced
/c/ for /s/	saya (I) sekolah (school) sepuluh (ten)	caya cekolah cepuluh
/t/ for /s/	sapu (broom) sisir (comb) pesawat (plane)	ta:pu titi be:ta:wat
/b/ for /p/	punya (have)	buna
/w/ for /b/	bebek (duck)	wewek
/n/ for /y/	ayam (chicken)	anam
/d/ for /g/	pinggir (side)	pindi
/d/ for /j/	eja (spell)	eda
/t/ for /k/	kaki (foot)	tati
/w/ for /p/	pendek (short)	wendek

Table D.1 shows phonemes which are substituted by Informant D

- Phoneme *Mediopalatal /c/* is substitute for *Laminalveolar /s/* in initial position.

[saya] becomes [caya]

[sekolah] becomes [cekolah]

[sepuluh] becomes [cepuluh]

- Phoneme *Apikodental /t/* is substitute for *Laminoalveolar /s/* in initial and medial position.

[sapu] becomes [ta:pu]

[sisir] becomes [titi]

[pesawat] becomes [be:ta:wat]

- Phoneme *Bilabial /b/* is substitute for *Bilabial /p/* in initial position.

[punya] becomes [buna]

- Phoneme *Labiodental /w/* is substitute for *Bilabial /b/* in initial and medial position.

[bebek] becomes [wewek]

- Phoneme *Apikoalveolar /n/* is substitute for *Mediopalatal /j/* in medial position.

[ayam] becomes [anam]

- Phoneme *Apikodental /d/* is substitute for *Dorsovelar /g/* in medial position.

[pinggir] becomes [pindi]

- Phoneme *Apikodental /d/* is substitute for *Mediopalatal /j/* in medial position.

[eja] becomes [eda]

- Phoneme *Apikodental /t/* is substitute for *Dorsovelar /k/* in initial and medial position.

[kaki] becomes [tati]

- Phoneme *Labiodental /w/* is substitute for *Bilabial /p/* in initial position.

[pendek] becomes [wendek]

Table D.2 Omission of Informant D

Omission	Words	Sound Produced
/r/	rumah (house)	umah
	roti (bread)	oti
	hendro (hendro)	ɔ̃ndɔ
	merah (red)	mah
	sisir (comb)	titi
	kursi (chair)	u:i
/n/	nenek (grandmother)	enek
/p/	punya (have)	unya
	apa (what)	a:a
/s/	semangka (watermelon)	ɔ̃nanta
	susan (susan)	u:an
	emas (gold)	ɔ̃ma
/k/	kasih (affection)	atih
/b/	belum (not yet)	ɔ̃lum
/ŋ /	anjing (dog)	andi

Informant D omits some phonemes:

- Omits phoneme *Apikoalveolar /r/* in all position.

[rumah] becomes [umah]

[roti] becomes [oti]

[hendro] becomes [ɒndɔ]

[merah] becomes [mah]

[sisir] becomes [titi]

[kursi] becomes [u:l]

- Omits phoneme *Apikoalveolar /n/* in initial position.

[nenek] becomes [enek]

- Omits phoneme *Bilabial /p/* in initial and medial position.

[punya] becomes [unya]

[apa] becomes [a:a]

- Omits phoneme *Laminoalveolar /s/* in all position.

[semangka] becomes [ɒnanta]

[susan] becomes [u:an]

[ɒmas] becomes [ɒma]

- Omits phoneme *Dorsovelar /k/* in initial position.

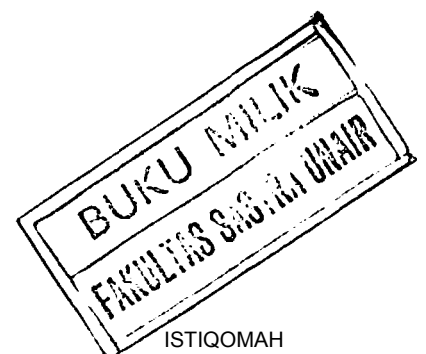
[kasih] becomes [atih]

- Omits phoneme *Bilabial /b/* in initial position

[belum] becomes [ɒlum]

- Omits phoneme *Dorsovelar /ŋ /* in final position.

[anjih] becomes [andi]



III.1.5 Informant E

Table E.1 Substitution of Informant E

Substitution	Words	Sound Produced
/t/ for /k/	buku (book)	butu
	toko (shop)	toto
	ikan (fish)	itan
/ɲ / for /r/	air (water)	aiɲ
/n/ for /r/	arik (arik)	anik
/y/ for /r/	merah (red)	miyah
/t/ for /j/	baju (cloth)	batu
/l/ for /b/	sabtu (saturday)	saltu
/y/ for /l/	bola (ball)	boya
/ɲ / for /l/	nakal (naughty)	nakaɲ

Table above shows phonemes which are substituted by Informant E

- Phoneme *Apikodental* /t/ is substitute for *Dorsovelar* /k/ in initial and medial position.

[buku] becomes [butu]

[toko] becomes [toto]

[ikan] becomes [itan]

- Phoneme *Dorsovelar* /ɲ/ is substitute for *Apikoalveolar* /r/ in final position.

[air] becomes [aiɲ]

- Phoneme *Apikoalveolar /n/* is substitute for *Apikoalveolar /r/* in final position.
[arik] becomes [anik]
- Phoneme *Mediopalatal /y/* is substitute for *Apikoalveolar /r/* in medial position.
[merah] becomes [miyah]
- Phoneme *Apikodental /ʋ/* is substitute for *Mediopalatal /y/* in medial position.
[baju] becomes [batu]
- Phoneme *Apikoalveolar /l/* is substitute for *Bilabial /b/* in medial position.
[sabtʉ] becomes [saltu]
- Phoneme *Mediopalatal /y/* is substitute for *Apikoalveolar /l/* in medial position.
[bola] becomes [boya]

Phoneme *Dorsovelar /ŋ/* is substitute for *Apikoalveolar /l/* in final position.

[nakal] becomes [nakaŋ]

Table E.2 Omission of Informant E

Omission	Words	Sound Produced
/b/	bawah (under)	awah
	bukan (not)	ukan
	bisa (can)	ita
/k/	kelas (class)	ɔlas
	bakwan (bakwan)	bawan
	kertas (paper)	ɔtas

/s/	saya (I)	aya
/r/	rambut (hair)	ambut
	roti (bread)	oti
One syllable or more	celana (trousers)	ana
	perempuan (women)	puan

Informant E omits phonemes:

- *Bilabial /b/* in initial position

[bawah] becomes [awah]

[bukan] becomes [ukan]

[bisa] becomes [ita]

- *Dorsovelar /k/* in initial and medial position.

[kelas] becomes [ɔlas]

[bakwan] becomes [bawan]

[kertas] becomes [ɔtas]

- *Laminoalveolar* in /s/ initial position.

[saya] becomes [aya]

- One syllable or more

[celana] becomes [ana]

[perempuan] becomes [puan]

Table E.3 Exceptional Word

Words	Sound Produced
hidung (nose)	adu
narto (narto)	atu
kita (we)	anta
manja (spoiled)	anda
boleh (may)	buih

III.1.6 Informant F

Table F.1 Substitution of Informant F

Substitution	Words	Sound Produced
/y/ for /j/	eja (spell)	eya
	jurang (ravine)	yulang
/ty/ for /j/	baja (steel)	batya
	fajar (dawn)	fatya
/w/ for /p/	pada (on)	wada
/dh/ for /d/	dorong (push)	dhorong
/th/ for /t/	oto (car)	otho
/ʔ / for /t/	lezat (delicious)	lezaʔ
/y/ for /s/	saku (pocket)	yaku
	saran (suggestion)	ya:an
	saraf (nerve)	ya:af

	nasi (rice) devisa (devisa)	nayi dewiya
/y/ for /c/	cara (way) cantik (beautiful)	yaya yantik
/ty/ for /c/	baca (read) kaca (glass)	batya katya
/kh/ for /g/	tiga (three)	tikha
/w/ for /v/	valuta (currency) veteran (veteran) devaluasi (devaluation)	waluta weteran dewaluasi
/y/ for /j/	syarat (condition) asyik (passionate)	yarat ahyik
/ai/ for /aI/	sampaI (arrive)	sampai
/au/ for /aU/	suraU (prayer house) pulaU (island) kacaU (in disorder)	surau pulau kacau

Table F.1 shows phonemes which are substituted by Informant F

- Phoneme *Medioplatatal* /y/ is substitute for *Medioplatatal* /j/ in initial and medial position.

[eja] becomes [eya]

[jurang] becomes [yulang]

- Phoneme *Apikodental /t/* plus *mediopalatal /y/* is substitute for *Mediopalatal /j/* in medial position.

[baja] becomes [batya]

[fajar] becomes [fatya]

- Phoneme *Labiodental /w/* is substitute for *Bilabial /p/* in initial position.

[pada] becomes [wada]

- Phoneme *Apikopalatal /d/* plus *Laringal /h/* is substitute for *Apikopalatal /d/* in initial position.

[dorong] becomes [dhorong]

- Phoneme *Apikodental /ʋ/* plus *Laringal /h/* is substitute for *Apikodental /ʋ/* in medial position.

[oto] becomes [otho]

- Phoneme *Glotal /ʔ/* is substitute for *Apikodental /ʋ/* in final position.

[lezat] becomes [lezaʔ]

- Phoneme *Mediopalatal /y/* is substitute for *Laminoalveolar /s/* in initial and medial position.

[saku] becomes [yaku]

[saran] becomes [ya:an]

[saraf] becomes [ya:af]

[nasi] becomes [nayi]

[devisa] becomes [dewiya]

- Phoneme *Mediopalatal /y/* is substitute for *Mediopalatal /c/* in initial position.
 - [cara] becomes [yaya]
 - [cantik] becomes [yantik]
- Phoneme *Apikodental /ʋ/* plus *Mediopalatal /y/* is substitute for *Mediopalatal /c/* in medial position.
 - [baca] becomes [batya]
 - [kaca] becomes [katya]
- Phoneme *Dorsovelar /k/* plus *Laringal /h/* is substitute for *Dorsovelar /g/* in medial position
 - [tiga] becomes [tikha]
- Phoneme *Labiodental /w/* is substitute for *Labiodental /v/* in initial and medial position.
 - [valuta] becomes [waluta]
 - [veteran] becomes [weteran]
 - [devaluasi] becomes [dewaluasi]
- Phoneme *Mediopalatal /y/* is substitute for *Apikoprepalatal /j/* in initial and medial position.
 - [jarat] becomes [yarat]
 - [ajik] becomes [ahyik]
- Diftong /ai/ is substitute for *Diftong Naik Menutup Maju /aɪ/* in final position.
 - [sampil] becomes [sampai]

- Diftong /au/ is substitute for *Diftong Naik Menutup Mundur /aU/* in final position.

[suraU] becomes [surau]

[pulaU] becomes [pulau]

[kacaU] becomes [kacau]

Table F.2 Omission of Informant F

Omission	Words	Sound produced
/r/	rata (plain)	:ata
	rokok (cigarette)	:okok
	baru (new)	ba:u
	turun (go down)	tu:un
	segar (fresh)	sega:
	ekor (tail)	eko:

Informant F omits *Apikoalveolar /r/* in all position.

[rata] becomes [:ata]

[rokok] becomes [:okok]

[baru] becomes [ba:u]

[turun] becomes [tu:un]

[segar] becomes [sega:]

[ekor] becomes [eko:]

Table F.3 Distinctive Feature.

Phoneme	Words	Sound Produced
/s/ and /c/	saya (I)	yaya
	cara (way)	yaya
/c/ and /j/	baca (read)	batya
	baja (steel)	batya

Informant F cannot distinguish phoneme /s/ with /c/ and phoneme /c/ with /j/.

III.2 Analysis of the Data

III.2.1 Informant A

Substitution

Substitution of informant A most frequently occurs in final position and least often occurs in initial and medial position. Phoneme *Apikoalveolar /n/* substitutes *Apikoalveolar /l/* and */t/* and *Dorsovelar / ɲ /* in final position. Informant A is able to produce phoneme /l/ in initial and medial position but unable to produce it in final position. He can utter phoneme /l/ in word [lalat] correctly, but can not utter phoneme /l/ in word [kapal]. He utters word [kapal] with [kapan]. It also happens with phoneme / ɲ /. He utters phoneme / ɲ / in word [ca ɲ kɪr] correctly, but utters word [kosofɲ] with [koson].

Phoneme *Apikoalveolar /t/* is substituted with *Apikoalveolar /l/* in initial and medial position and /n/ in final position. So, word [rebana] becomes [lebana], word [hari] becomes [hali], and word [layar] becomes [layan]. Here, we can see

that some substitution occurs among phonemes with the same place of articulation.

Informant A can not produce phoneme *Apikodental /t/*, *Bilabial /p/*, and *Dorsovelar /k/* in final position. He substitutes those phonemes with *Laringal /h/*. Therefore, words like: [otot] becomes [otoh], [top] becomes [toh], and [bebek] becomes [bebeh].

Phoneme *Mediopalatal /c/* and */j/* are substituted with *Laminoalveolar /s/* and */z/* in initial and medial position. Word [cacing] becomes [sasing] and [baju] becomes [bazu]. He pronounces *Laminoalveolar /s/* and */z/* easier than *Mediopalatal /c/* and */j/*. *Laminoalveolar* is produced by rising tip and blade of the tongue to the alveolar ridge, then *Mediopalatal* by rising middle of the tongue to the hard palate. It means that he does not rise his middle of the tongue to the hard palate, but rises his tip of the tongue to the alveolar ridge.

In vowel, Informant A is unable to produce *Vokal Bawah*. He substitutes *Vokal Depan Tinggi Bawah /ʌ/* and *Vokal Depan Madya Bawah /e/* with *Vokal Depan Tinggi /i/*. He also substitutes *Vokal Belakang Tinggi Bawah /ʊ/* with *Vokal Belakang Tinggi Atas /u/*.

Omission

Informant A omits phoneme *Dorsovelar /k/*, *Apikodental /t/* in final position and *Apikoalveolar /l/* and */r/* in medial position. In case of phonemes */k/* and */t/* there is inconsistency of Informant A since he sometimes omits and sometimes substitutes these phonemes with phoneme *Laringal /h/* in final

position. Then, he omits phoneme *Apikoalveolar /l/* and */r/* when those phonemes in the medial position, and before or after those phonemes are consonant. Informant A has difficulty in pronouncing the word that has pattern **—CCV—** or **—VCC—**.

Addition

Informant A is unable to produce phoneme *Dorsovelar /k/* and *Apikoalveolar /r/* contiguously. He adds phoneme */ə/* between those phonemes, so, word [krim] becomes [kəlim].

Exceptional Word

Informant A produces some disorder words which are not classified as one of those four phonologic disorders. He does not merely substitute a phoneme, but also omits phonemes, so, the sound produced is very deviated, like word [wortel] becomes [wotun].

III.2.2 Informant B

Substitution

All substitution of Informant B occurs in initial and media position. There is no substitution in final position. Informant B produces sound with broken speech. It means that he produces it syllable by syllable. His sound is weak and even he sometimes produces consonant which can not be heard by listener.

Informant B is only able to produce some phonemes. Therefore some phonemes are disordered. He is unable to produce phonemes *Mediopalatal /c/, /j/* and *Dorsovelar /k/* in medial position. He substitutes those phonemes with *Apikodental /t/*. He can not raise his middle and back of the tongue to the hard palate and soft palate. He can merely raise his tip of the tongue to the upper teeth. The same case occurs to the phoneme *Dorsovelar /ɣ/*. He substitutes this phoneme with *Apikoalveolar /n/* which is produced by the tip of the tongue to the alveolar ridge.

He also substitutes phonemes *Apikoalveolar /r/* with *Laringal /h/* and *Apikoalveolar /l/* in medial position. Then, he substitutes phoneme *Apikodental /t/* with *Laringal /h/* in initial position. This is the opposite explanation with the above which explain that *Apikodental /t/* is substitute phoneme. So, there is inconsistency of substitution done by Informant B.

Informant B cannot produce phoneme *Bilabial /m/* and */p/*. He substitute those phonemes with *Labiodental /w/* and *Bilabial /b/*. It seems that he cannot differentiate phoneme of the same place of articulation.

In vowel, Informant B cannot produce *Vokal Depan Tinggi Atas /i/*, *Vokal Belakang Tinggi Atas /u/*, and *Vokal Belakang Madya Atas /o/*. He substitutes those vowels with *Vokal Depan Tinggi Bawah /ɪ/*, *Vokal Belakang Tinggi Bawah /ʊ/*, and *Vokal Belakang Madya Bawah /ɔ/*. So, he is unable to produce vowel with the tongue position is high in the mouth.

Omission

Because of the weak sound of Informant B, some consonants are not heard. Really, Informant B tries hard to utter those consonants but the sound produced only the vowels, such as word [juga] becomes [Uʔ :a], [kado] becomes [a: ɔ], [soto] becomes [ɔ ʔ : ɔ], and [kərikil] becomes [ə:l:l].

Informant B also omits *Apikoalveolar /n/* in final position, */r/* in all position, *Laminoalveolar /s/* in initial and final position, *Dorsovelar /k/* in medial position, and *Medioplatatal /j/* in initial and medial position. It shows that phonemes which can be produced by Informant B is very restricted.

III.2.3 Informant C

Substitution

Substitution of Informant C most frequently occurs in medial and final position. Only one phoneme which is substituted by him occurs in initial position, that is phoneme *Laminopalatal /ʃ/*.

Informant C is able to produce *Dorsovelar /k/* in initial and medial position, but unable to produce it when occurs in final position. He substitutes this phoneme with *Laringal /h/*. He produces phoneme *Dorsovelar /k/* to substitute *Apikodental /d/* in medial position. Therefore, word [kakak] becomes [kakah], and word [khidmat] becomes [khikmat].

Informant C cannot produce *Glotal /ʔ /* in medial position. He substitutes it with *Laringal /h/*. He produces word [maʔ af] with [mah:af]. Comparing with

his ability to produce word [khikmat], this may be because of the vowel /a/ after the *Glotal /ʔ/*.

Phoneme *Laminopalatal /j/* is substituted with *Laminoalveolar /s/* and */z/* in initial and medial position. In producing *Laminopalatal /j/*, Informant C raises his tip and blade of the tongue to the alveolar ridge, not to the hard palate, so the sound produced is phoneme */s/* and */z/*.

Then, Informant C produce *Laminoalveolar /z/* and *Medioplatatal /c/* to substitute *Laminoalveolar /s/* and *Medioplatatal /j/* in medial position. It shows that the substitution occurs to the phonemes with the same place of articulation.

In vowel, Informant C is unable to produce *Vokal Depan Tinggi Bawah /ɪ/*, *Vokal Belakang Tinggi Bawah /ʊ/*, and *Vokal Depan Madya Atas /e/*. He substitutes those vowels with *Vokal Depan Tinggi Atas /i/*, *Vokal Belakang Tinggi Atas /u/*, and *Vokal Depan Madya Bawah /ɛ/*.

The same case with the vowel, Informant C produces diphthong */ai/* and */au/* to substitutes rising diphthong */aɪ/* and */aʊ/*. It means that the rise of the vowel is over the normal.

Addition

Informant C adds *Laringal /h/* to the word where the final of it is vowel. He produces this final vowel strongly, so the addition take place.



Omission

Informant C just omits *Apikoalveolar /r/* in all position. It means that his ability in pronouncing the phonemes is good enough, since not all of Indonesian speakers are able to utter */r/* sound.

III.2.4 Informant D

Substitution

Substitution of Informant D occurs in initial and medial position. There is no substitution in final position. Informant D seems to have more attention to the final phoneme.

Informant D substitutes phoneme *Laminoalveolar /s/* with *Mediopatalatal /c/* in initial position and *Apikodental /t/* in initial and medial position, such as word [saya] becomes [caya] and word [sisir] becomes [titi]. She also substitutes phoneme *Bilabial /p/* with */b/*. It means that she can not differentiate phonemes of the same place of articulation. Informant D sometimes has difficulty in producing Bilabial */b/* and */p/*, and substitutes those phoneme with *Labiodental /w/*.

Informant D also unable to raise her middle and back of the tongue to the hard palate. Therefore, she substitutes phonemes *Mediopatalatal /j/* and *Dorsovelar /g/* with *Apikopalatal /d/*. The same case occurs to the *Mediopatalatal /ŋ/*. She can not produce this sound and substitute it with *Apikoalveolar /n/*.

Omission

Informant D omits many phonemes. Most of her omission is the initial phonemes. Like in substitution, Informant D gives more attention to the final phoneme, so if she feel that the initial phoneme seems difficult to utter, she just omits it.

The final omission only happens to the phoneme *Apikoalveolar /r/*, *Laminoalveolar /s/*, and *Dorsovelar /ŋ /*. The examples are word [sisir] becomes [titi], word [ðmas] becomes [ðma], and word [anjin] becomes [andi].

The initial and medial omission occurs to some phonemes, such as *Apikoalveolar /r/*, */l/*, *Bilabial /p/*, */b/*, *Laminoalveolar /s/* and *Dorsovelar /k/* and */g/*. The examples are word [rɔ ti] becomes [ɔ ti], [nenek] becomes [enek], [punya] becomes [unya], [susan] becomes [u:an], [kasih] becomes [atih], and [bðlum] becomes [ðlum].

III.2.5 Informant E

Substitution

Substitution of Informant E most frequently occurs in initial and medial position, and least often occurs in final position. Informant E produces phoneme *Apikodental /t/* to substitute phoneme *Dorsovelar /k/* and *Medioplatatal /j/* in medial position. He tends to produce phoneme by raising the tip of the tongue to the upper teeth to substitute phoneme which is produced by rising the middle and back of the tongue to the hard palate or soft palate.

There is inconsistency in substitution of phoneme *Apikoalveolar /r/*. this phoneme is substitute with phoneme *Apikoalveolar /n/*, *Mediopatalatal /l/* in medial position and *Dorsovelar / ɣ /*, so word [arik] becomes [anik], word [merah] becomes [miyah], and word [air] becomes [ai ɣ].

The inconsistency also occurs to the phoneme *Apikoalveolar /l/*. in one side, this phoneme substitutes phoneme *Bilabial /b/* in medial position, and the other side this phoneme is substituted with phoneme *Mediopatalatal /l/* and *Dorsovelar / ɣ /*. Therefore, word [sabtʉ] becomes [saltʉ], word [bola] becomes [boya], and word [nakal] becomes [nakah].

Omission

All omission of Informant E occurs in initial and medial position. There is no omission in the final position. It shows that Informant E gives less attention to initial word and more focus to the final word. Therefore, she often omits the initial word in uttering.

Informant E also omits one syllable or more in uttering of certain words. He utters word [celana] with [nana], and word [perempuan] with [puan].

Exceptional Word

There are some exceptional words which are not classified as one of those four phonologic disorders produced by Informant E. The sound produced is very deviated, such as word [hiduɣ] becomes [adu], [narto] becomes [atu], [kita] becomes [anta], [manja] becomes [anda], and [boleh] becomes [buih].

III.2.6 Informant F

Substitution

Substitution of Informant F occurs in initial and medial position. Informant F produces phoneme *Mediopalatal /y/* to substitute *Mediopalatal /j/*, */c/*, *Laminoalveolar /s/*, and *Laminopalatal /ʃ/*. It seems that this substitution occurs among the phonemes in the same place of articulation. Sometimes phoneme *Mediopalatal /j/* and */c/* is substituted with */ty/* (phoneme *Mediopalatal /y/* + *Apikodental /t/*). Here we can see that Informant F often produces phoneme *Mediopalatal /y/*.

Informant F also produces */dh/* and */th/* (really do not exist in Indonesia) to substitute phoneme *Apikopalatal /d/* and *Apikodental /t/*. Informant F utters phonemes */d/* and */t/* with hard effort, so the sound produced seems sound */dh/* and */th/*.

Informant F produces *Labiodental /w/* to substitute *Labiodental /v/* and *Bilabial /p/*. This substitution also has relation with place of articulation. Phoneme *Bilabial* is produced by moving the tongue and lips together, while *Labiodental* by moving upper front teeth to the lower lips.

Omission

Informant F omits *Apikoalveolar /r/* in all position. Word [rata] becomes [:ata], word [baru] becomes [ba:u], and word [segar] becomes [sega:]

Distinctive Feature

Informant F is not able to distinguish phoneme *Laminoalveolar /s/* from *Mediopalatal /c/* and phoneme *Mediopalatal /c/* from *Mediopalatal /j/*. He utters word [saya] with [yaya] and also utters word [cara] with [yaya]. Then, he utters word [baca] with [batya] and word [baja] with [batya].

BAB IV

CONCLUSION AND SUGGESTIONS