## CHAPTER III <br> PRESENTATION AND ANALYSIS OF THE DATA


#### Abstract

3.1. Presentation of The Data

To simplify and interpret further analysis, presentation of the data is divided into two groups. First, a able is used to present the inventory of sounds, second, a description is used to describe the sound that have been presented in the table.


### 3.1.1. The Inventory of Sounds

The data that are presented in the table below are obtained from informants' pronounciations that have been grouped based on the sounds that occured. From the words that are ppronounced by the informants, transcriptions are made and grouped in the table below :

Table 1
The Inventory of Sounds

| Sounds | Initial | Medial | Irinal |
| :---: | :---: | :---: | :---: |
| [p] | [panton] <br> rice <br> [pari] <br> rice <br> [polowijo] <br> vegetables <br> [putri] <br> daughter <br> [pasan] <br> message <br> [pory] <br> each <br> [pinisopoh] <br> the olders <br> [puron] <br> willing <br> [parduli] <br> care <br> [pok $)$ ] <br> bottom | [k^pen] <br> times <br> [sampon] <br> already <br> [nכp د] <br> what <br> pupami] <br> if <br> [k^bup^ten] <br> regency <br> [kumpul^n] <br> group <br> [tanp 3$]$ <br> wi. thout <br> [koplo] <br> fool <br> [sampe ${ }^{7}$ ] <br> until <br> [bap $\kappa^{2}$ ] <br> father |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [pel] <br> pilit <br> [piys mbr'] <br> alone <br> [pund ot ${ }^{7}$ ] <br> take. <br> [pentns] <br> show <br> [paynh] <br> tired <br> [putu] <br> grandson <br> [p^t $\varepsilon^{\prime}$ ] <br> rather <br> [puloh] <br> ten <br> [p^Zg^h] <br> still <br> [prei] <br> free/holdday <br> [p^nen] <br> harvest | [opr^si] <br> operation <br> [opmama]. <br> hospitalization <br> [samapot] <br> fainted <br> [capat] <br> fast $\left[g R \supset p y \rho^{\circ}\right]$ <br> overwhelming $[\text { kっpyっr }]$ $\frac{\text { soft flesh }}{\text { coconut }}$ $[\mathrm{s} \wedge \mathrm{pu}]$ <br> broom [sampeyan] <br> you $\left[k \varepsilon \mathrm{pl} \varepsilon^{\prime}\right]$ <br> a kind of insect $\left[t \operatorname{tap} \wedge^{\prime}\right]$ <br> exact $\left[\text { giumpo }{ }^{2}\right]$ <br> gather | - |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [pars] <br> dry(for rice) <br> [pop o ${ }^{\circ}$ ] <br> babytis clothes <br> [papat ${ }^{7}$ ] <br> four <br> [pl^ur] <br> had better <br> [prnp^ten] <br> crossroad <br> [palom] <br> mango <br> [pang^n] <br> bake <br> [pindo] <br> twice $[\operatorname{panjanəz\wedge n}]$ <br> you $[p \rho 1 \wedge h]$ <br> move $[\mathrm{p} \wedge \text { rəy }]$ <br> allowed <br> [pnyen] <br> meal | [namplon] <br> plunge <br> [rupz] <br> colour <br> [glapon] <br> flour <br> [g^рyo?] <br> embrace <br> [12pat $=$ ] <br> a. name of snack |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[\mathrm{p}=]$ | [p3s 2] <br> fasting <br> [pinger] <br> edge <br> [puco ${ }^{\circ}$ ] <br> top |  | $\left[{ }^{2} u u^{\prime}{ }^{2} p^{\prime}\right]$ <br> life $[\mathrm{s} \partial b \wedge \mathrm{p}=]$ <br> cause $\text { [satiy } \left.\wedge p^{*}\right]$ <br> each [cukop=] <br> enourh <br> [sundəp=] <br> a kind of <br> insect <br> [cukop=] <br> enough <br> [kadəlap=] <br> drawn <br> [terop=] <br> awning <br> ['arap=] <br> want |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  |  |  | [yand $\wedge p^{\prime}$ ] <br> below <br> [ggar $\left.\wedge p^{2}\right]$ <br> do <br> [dorəp=] <br> harvest <br> [nalap ${ }^{2}$ ] <br> watering rice <br> [nagg^p ${ }^{*}$ ] <br> hire <br> [səmar^p ${ }^{2}$ ] <br> know [borəp"] <br> the oldest child <br> [yerэp] <br> front <br> [Lujop:] <br> consent <br> [Jankap「] <br> complete <br> [ $n^{n} \eta \rho^{2}$ ] <br> yawn <br> [nrosapr <br> penetrate |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[\mathrm{b}]$ | [bal^s] <br> nothing <br> $[\mathrm{b} \wedge \mathrm{gi}]$. <br> part <br> [bibet] <br> seed <br> [b^y^r] <br> pay <br> [biyasn] <br> ordinary <br> $[$ bid $\wedge \eta]$ <br> area <br> [b^ñu] <br> water <br> [bstan] <br> no <br> [boss] <br> use high level <br> of Javanese <br> [benjer] <br> flood <br> [banjor] <br> then | [ibu] <br> mother <br> [1abat]. <br> inside <br> [sabnr] <br> spread off <br> [Iumbon] <br> rice storage <br> [g^b^h] <br> rice <br> [1^buh^n] <br> rest time <br> [r^bo ${ }^{*}$ ] <br> fertilizer <br> [obnt] <br> medicine <br> [kubur/n] <br> grave <br> [nlabor] <br> paint <br> [10mb^] <br> competition |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [b^rəy] <br> together <br> [barns $]$ <br> rice <br> [barg] <br> dry, for land <br> [bar $2 p^{7}$ ] <br> the oldest chi child $[\text { butoh }]$ <br> need $[\text { bramb^ }]$ <br> onion [bub^r] <br> finish $[b \wedge 1 b]$ <br> hal 1 $[\text { bəs^r] }$ <br> a name of Java nese month [bucu] <br> ceremonial dish [boy a] crocodile | [?ambay] <br> ceremonial dish <br> in a cone shap <br> 「knbeh $\rceil$ <br> all <br> [?omboh] <br> don't know <br> [? $3 \mathrm{mb} \wedge \mathrm{h}$ ] <br> grand parenta $[? a b \wedge \eta]$ <br> red $\left[t o b \wedge t^{:}\right]$ <br> repent and for <br> swear $\text { tob } u^{-}$ <br> far \|mubon... <br> around [tumbis] <br> buy <br> $\left[\operatorname{tamb}^{-}{ }^{-}\right.$ <br> add [sumbor] <br> source. |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  |  |  |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [w] |  | [suwid^?] <br> sixty <br> [s $\varepsilon w u]$ <br> a thousand <br> [?uw ? $^{5}$ ] <br> tree <br> [kuw1] <br> that |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [WJlu] <br> eight <br> [wulinn] <br> month <br> [w^1!?] <br> up side <br> [wol^s] <br> pity <br> [v^у^z] <br> puppet drama <br> [woro-worv] <br> announcement $\left[w i w t t^{2}\right]$ <br> start $[w A g \backslash]$ <br> $\frac{\text { name of Java- }}{\text { nese day }}$ [wanton] <br> brave <br> [winkly] <br> back 'wados ${ }^{-}$ <br> goat | [Juwbt'] <br> a kind of frui fruits <br> [?^พ <br> worsy <br> [duwn] <br> have <br> [?uw2 7 ] <br> man <br> [ $\mathrm{B} \wedge \mathrm{W} \wedge \mathrm{n}$ ] <br> rice field [tuw ${ }^{\text {] }}$ <br> old <br> [Putowa] <br> or <br> [gncli <br> make <br> [nuwon] <br> ask for <br> [mawon] <br> only <br> [kajnwi] <br> beside |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [ t ] | [ $\tan 1]$ <br> farmer <br> [til. J ] <br> cassava <br> [tig2] <br> three <br> [terob] <br> then <br> $[$ tamb $\wedge 1]$ <br> batch <br> [tuw)] <br> pld <br> [toju] <br> three <br> [tabu] <br> sugar cane: | [sวwวlıs] <br> eleven <br> [swiwi] <br> wing <br> [?ow^h] <br> change <br> [?antan] <br> motionless [pat $\wedge$ ?] <br> piece of land [sวtung^l] <br> one <br> [wonton] <br> there is <br> [ganti] <br> change <br> [pintor] <br> Elever <br> [ $m \wedge t i$ ] <br> dead <br> [wot^w $\operatorname{ss}$ ] <br> about |  |


| Sounds | Initial | Medias | Final |
| :---: | :---: | :---: | :---: |
|  |  | [s^?Estu] <br> true <br> [m^st^ni] <br> call <br> [7arto] <br> money <br> [? (tong] <br> count <br> [motu] <br> beyond <br> [s^tl] <br> a name of meals <br> [nへtc] <br> ever <br> [w^tas] <br> boundary <br> [mantu] <br> son in law <br> [na puntan] <br> apologize <br> [butoh] <br> need |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  |  | [n^tən] <br> like this <br> $[k a n t I]$. <br> patient <br> [satan^h] <br> a half <br> [tantAJ] <br> challenge <br> [manto?] <br> go home <br> $[s \partial t)]$ <br> tobacco <br> [soto] <br> 2 kind of meals <br> W^tu_ <br> stone $[p u t / h]$ <br> white $[k \wedge n t o n]$ <br> left <br> [somnntan] <br> an unnamed <br> amount <br> [mantri] <br> officer |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[t=]$ |  | - | [?^1^m^t'] |
|  |  |  | address |
|  |  |  | [s1^mat ${ }^{\text {] }}$ ] |
|  |  |  | safe |
|  |  |  | [?^d^t'] |
|  |  |  | custom/tradi= |
|  |  |  | tion |
|  |  |  | [1iwnt'] |
|  |  |  | pass |
|  |  |  | [surnt ${ }^{\text {] }}$ |
|  |  |  | letter |
|  |  |  | [?^11t'] |
|  |  |  | small |
|  |  |  | [8^ktt'] |
|  |  |  | sick |
|  |  |  | [pundot:] |
|  |  |  | take |
|  |  |  | [kiy^t'] |
|  |  |  | strong |
|  |  |  | [kuwnt:] |
|  |  |  | strong |
|  |  |  | [?วbへt'] |
|  |  |  | medicine |
|  |  |  | [cnent'] |
|  |  |  | Ihandican |


| Sounds | Initial | Mcdial | Final |
| :---: | :---: | :---: | :---: |
| $[\mathrm{t} .]$ | $[\text { toll }]$ son |  <br> stand up | [?Awst:] <br> start <br> [ñ^mbot'] <br> work <br> [duw(t'] <br> money <br> [tumots] <br> join <br> [? ${ }^{\text {oyot }}$ ] <br> root <br> [8ngat'] <br> able <br> [məndət:] <br> take <br> [s^クวt] <br> very <br> [kupati] <br> a name of meal <br> [Junk^t ${ }^{\text { }}$ ] <br> comb <br> [lancrat:] <br> damage |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| ; | [ $\mathrm{t}, \mathrm{s}$ ] <br> only <br> [tukoI] <br> grow <br> [tanol] <br> a kind of wa- <br> yang |  |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [d] |  | [s^?itit?] <br> few <br> [C^nṭモ1^ñ] <br> hanger <br> [cokuṭər] <br> curl <br> [mot ใ?] <br> pick <br> [manto?] <br> hodding of head <br> [pato?nn] <br> guide <br> [mənd $\partial t^{2}$ ] <br> take <br> [mundot'] <br> take <br> [ $\mathrm{k} \wedge \wedge_{\wedge} \wedge$ ] ] <br> sometimes [mod̨] <br> make the same [kand (1] <br> clay pot [wndo?] reservoir |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  |  | [g^di^h] <br> have <br> [sokod! !?] <br> few <br> [m^ndak] <br> stop <br> [pod. $]$ <br> the same <br> [godion] <br> leaf <br> $[\bmod \wedge 1]$ <br> capital <br> [pindo] <br> twice <br> [ $\mathrm{\sim} \wedge \wedge \wedge h$ ] <br> place <br> [panḍ^?] <br> every time [gaḍ^ŋ] <br> banana $\left[? \varepsilon \underset{.}{d} k^{2}\right]$ <br> near |  |


| Sounds | Inital | Mcdial | Final |
| :---: | :---: | :---: | :---: |
| [d] |  <br> spirit inhabit Ingcertain <br> [dintan] <br> day <br> [daran] <br> not yet |  |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [d^di] <br> become <br> [d^dวs] <br> become <br> [ $\mathrm{d} \wedge \mathrm{m} \partial \mathrm{I}$ ] <br> use <br> [dino] <br> day <br> [dis)] <br> village <br> [dalวp'] <br> drawn <br> [doro] <br> pigeon <br> [dulor] <br> brother <br> [dวwo] <br> long <br> [duwl] <br> have <br> [dudu] <br> not <br> [dalo?] <br> see | [m^dok] <br> stand <br> [sodoyo]. <br> all <br> [k^d^g] <br> relative <br> [sup^dos] <br> should be [sods] <br> palm leaf rib <br> [tandor] <br> plant <br> [muds] <br> stark naked [ud^n] <br> rain <br> [mud^1] <br> 1ie all over [ $\mathrm{k} \wedge \mathrm{d} \partial \mathrm{s}$ ] <br> 1ike <br> [ $\mathrm{nid}_{\mathrm{I}}^{\mathrm{I}} \mathrm{rr}$ ] <br> peddle <br> [?^doh] <br> far |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [m] | [ $\alpha \wedge n d \wedge \eta]$ <br> rice cooker <br> [dR^mben] <br> drumband <br> [mundot'] | [kidol] <br> South <br> [kudu]. <br> must <br> [p^d^ク』^n] <br> place for cook <br> ing rice <br> [t^nd^ $\eta$ ] <br> do <br> [tums] | [?anam] |
|  | buy | louse |  |
|  | $\begin{aligned} & {[\mathrm{m} \wedge l \mathrm{~h}]} \\ & \text { again } \end{aligned}$ | $\begin{aligned} & \text { [?upoms] } \\ & \text { if } \end{aligned}$ | $\begin{aligned} & {[\text { parrm] }} \\ & \frac{1 \text { 1quid to rub }}{\text { on body }} \end{aligned}$ |
|  | $\begin{aligned} & {[\text { manik }]} \\ & \text { this } \end{aligned}$ | $\begin{aligned} & {[\text { nump^? }]} \\ & \text { ride } \end{aligned}$ | $\begin{aligned} & {[\mathrm{k} \wedge \mathrm{gam}]} \\ & \text { for } \end{aligned}$ |
|  | $\left[\begin{array}{l} {[m 1 \wedge k u]} \\ \text { walks } \end{array}\right.$ | $\begin{aligned} & {[\text { tump^n] }} \\ & \text { join with } \\ & \text { others } \end{aligned}$ | $\left[\begin{array}{l} \text { [rondom] } \\ \text { submerged } \end{array}\right.$ |
|  | $[m \wedge \eta k c]$ | $[g \wedge m p l l]$ | [? $\wedge d \partial m$ ] |
|  | $\left[\begin{array}{l} \text { later } \\ {[m r i k i]} \end{array}\right.$ | easy $[? \supset \mathrm{~m} \wedge \mathrm{~h}]$ | cold [galam] |
|  | here | house | Wil1 |
|  | $\left[\begin{array}{l} {[\text { mullh }]} \\ \text { go home } \end{array}\right.$ | $[\mathrm{r} \wedge \mathrm{ml}]$ <br> busy/nojsy | $\left[\begin{array}{l} {[m \wedge r \partial m]} \\ \text { satisfy } \end{array}\right.$ |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [m^ju] <br> go foward <br> [mulni] <br> start <br> [mung $\wedge$ h] <br> climb <br> [mumot] <br> headache <br> [m^mpu] <br> able/rich <br> [monss] <br> season <br> [m^l^h] <br> even <br> [mı^yu] <br> fun <br> [mrucot ${ }^{\text { }}$ ] <br> 100se <br> [mots] <br> eye <br> [m^ri] <br> recover | [c^mpor] <br> mix <br> '[? ᄂlmu]. <br> science <br> [? $\mathrm{nm} \wedge n$ ] <br> safe <br> $[\mathrm{d} \wedge \mathrm{mal}]$ <br> for <br> [?umor] <br> age <br> [s^mpon] <br> already <br> [lum^y^n] <br> not bad <br> [ $\mathrm{r} \wedge \mathrm{mi}$ ] <br> jute <br> [tumb^s] <br> buy <br> [sum^h] <br> husband/wife <br> [sumor] <br> well | [ pol 2 m ] <br> manggo <br> [?^yวm] <br> safe <br> [kugkom] <br> submerged <br> [sugsom] <br> porridge of rice |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [ n$]$ | [mlzbu] <br> enter <br> [n^m1] <br> name <br> [numpn?] <br> ride <br> [nop2] <br> what <br> [nik^h] <br> marry <br> [n^mo?] <br> just <br> [nomor] <br> number <br> [n^ri] <br> dance <br> [n^ŋıク] <br> but <br> [nunot:] <br> $\frac{\text { join with }}{\text { others }}$ <br> [ $n \wedge t l$ ] <br> ever <br> [nots] | [1ims] <br> five <br> [t^nḍor]. <br> plant [b^njor] <br> then $[\operatorname{din}]]$ <br> day $\text { \|tuno } \mid$ <br> less <br> [kanを?] <br> can <br> [p^nen] <br> harvest <br> [ $\mathrm{t} \wedge \mathrm{n} 1$ ] <br> farmer <br> [ganti] <br> change <br> [? $2 \mathrm{n} \circ$ ] <br> there is <br> [pindhh] <br> move <br> [1^nc^r] smooth | $[?\llcorner t \wedge n]$ <br> East $[\text { Rud } \wedge n]$ <br> rain $[\mathrm{s} 21 \wedge \mathrm{p} \wedge n]$ <br> 36 days <br> [pon^p^n] <br> nephew/niece <br> [s^mpon] <br> already <br> [wonton] <br> there is <br> [boton] <br> no <br> [? $\wedge \wedge \wedge n]$ <br> name <br> [1^Д®n] <br> swim <br> [t^on] <br> year <br> [p^nton] <br> Efice |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | $\left[\begin{array}{l} {[\text { nrimo }]} \\ \text { accept } \\ {[\text { norn? }]} \\ \text { hit } \\ \\ \text { nlis lp: }] \\ \text { slipped in } \end{array}\right.$ | $\mid p \ln \wedge ?$ <br> comfort <br> [?^n^? $]^{-}$ <br> son/daughter <br> \|kons <br> there $\left[\begin{array}{l} {[\text { k^ntor }} \\ \text { office } \\ {[\text { pundi }]} \end{array}\right]$ <br> where $[? \wedge \cap i-? \wedge \cap 1]$ <br> instrument to cut the rice |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[\eta]$ |  | [m^ŋks] <br> w111 <br> [k^ngo] <br> for <br> [mingu] <br> Sunday <br> [8วy)] <br> nine <br> [k^gən] <br> miss <br> [? $\wedge \cap$ ns $\wedge 1]$ <br> get <br> [DAクg <br> still <br> [mong $]$ <br> please <br> [binko?] <br> bent <br> [por^nk^t:] <br> instrument <br> [baŋ1] <br> night | [b $\wedge y \wedge \eta]$ <br> bed from wood $[s \wedge k(\eta]$ <br> from $[7, t o n]$ <br> count $\lceil(? \wedge g \partial \eta]$ <br> bif $[\alpha \wedge t ə \eta]]$ <br> come $[p \wedge n j \wedge \eta]$ <br> long $[g \wedge m p \wedge \eta]$ <br> easy $[s \cup \eta]$ <br> that/which $[p r(\eta)]$ <br> bamboo $[I \wedge p \wedge \eta \wedge \cap]$ <br> court $[b \wedge j a \eta]$ <br> the oldest child |



| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [not2] <br> real. <br> [ñㅅd] <br> serl <br> [ñor] <br> pay back <br> $[$ ñ^ŋkı $]$ <br> bring <br> [nuco?] <br> balance <br> [ñblos] <br> portiorate <br> [ñ(w)] <br> hire <br> [nolon] <br> steal <br> [nlenor] <br> turn on <br> [ñวrィŋ] <br> attack <br> [ñ̊dRคn $n$ ] <br> ceremony to <br> pay homage an- <br> cestoral spiri | [?nท̂ววp] <br> cold <br>  <br> spirit Inhabi <br> bited certain <br> place $[? \cap \hat{n} \wedge x]$ <br> new |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [ñ^ $]$ <br> go <br> [ñ^yor] <br> prepare vegeta <br> ble dish <br> $[$ nn^tl] <br> make sate <br> [nn^nd^?] <br> touch <br> [ñomplon] <br> plunge <br> [nuysumi] <br> make porridge <br> of rice for <br> the workers <br> [ñmo? $]$ <br> mosquito <br> $[$ ñalam] <br> diving <br> [ñrupot $\left.{ }^{2}\right]$ <br> slurp <br> [ñuñot] <br> be soggy |  |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[\mathrm{g}]$ | ［g＾クコ®ヘI］ <br> five <br> ［ $\mathrm{E} \wedge$ クु $\mathrm{s} \wedge \mathrm{r}]$ <br> fast <br> ［garin］ <br> sick <br> ［g＾wl］ <br> make／wear <br> ［ganten］ <br> by turns <br> ［gulon］ <br> collar <br> ［g2w2］ <br> bring <br> ［gluntog］ <br> 1ie down <br> ［ b เnd $\partial \eta$ ］ <br> carcy <br> ［galo］ <br> disappointed <br> $[g \wedge m p \wedge \eta]$ <br> easy | ［s＾g $\partial t$ ］ <br> able <br> ［morgo］ <br> cause <br> ［yglh］ <br> yes <br> ［kango］ <br> for <br> ［？ug2］ <br> also <br> ［Jへ gOH ］ <br> corn <br> ［muņg 1 h］ <br> climb <br> ［dugi］ <br> arrive $[t i g J]$ <br> three／dry＿sea－ son $\text { [tanวgว }]$ <br> power <br> ［？＾gəm］ <br> clothes |  |


| Sounds | Initial | Medial | Tinal |
| :---: | :---: | :---: | :---: |
| [k] | [gRopyo?] <br> overwheliming <br> [g^] <br> alley <br> [gunam] <br> speech <br> [gulo] <br> sugar <br> [gupil] <br> chipped <br> [gllt^?] <br> lie down <br> [gadl] <br> big <br> [gRวmbol] <br> gather <br> [kul^? ] <br> buy goods for resale <br> $[k \wedge l(h]$ <br> two <br> [k^クgコ] <br> for | [jog 3 ] <br> watch over <br> [ $\mathrm{p} \wedge \mathrm{gg} \wedge \mathrm{h}$ ] <br> still <br> [menikj] <br> this <br> [m^nkı] <br> soon/will <br> [cukop=] <br> enough |  |


| Sounds | Initiad | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [kur^ŋ] <br> 1 ess <br> [k^ro?] <br> rose-aplle flo wer <br> [karly] <br> dry <br> [krnknl] <br> stone $[k l \partial l \partial p=]$ <br> drawn $[k(\mathrm{p} \wedge \cap]]$ <br> plait from bamboo $[k u l o n]$ <br> Vest $[k \wedge \mathrm{rn} \wedge \mathrm{p} \wedge I]$ <br> karnival $[k u p ı \eta]$ <br> ear $[k \wedge \eta]$ <br> brother $[k \ln )]$ <br> here | [niku] <br> that <br> [sukJ] <br> glad <br> $[?$ Lnk $\wedge \eta]$ <br> which <br> [sakico] <br> comfort <br> [tukol] <br> grow <br> [?1ki] <br> this <br> $[s \wedge ? i k i]$ <br> now <br> [samonks] <br> water melon <br> [s^kı $]$ ] <br> from <br> [griki] <br> here <br> [dukoh] <br> village |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| ; | [kAmbll] <br> coconut <br> [k^yu] <br> wood <br> [knd̨つs] <br> like/as <br> $[\operatorname{kun}(n]$ <br> yellow <br> [klabu] <br> can enter <br> [kamb^n] $]$ <br> flower <br> [kulo] <br> I <br> [kiwo ] <br> left <br> [krikil] <br> stone <br> [kluyur^n] <br> loaf around [k^ku] <br> 3tiff/rigid <br> [knspi] <br> cassava | $[? \cap \mathrm{ER}]$ <br> much/a lot <br> [t^kon] <br> ask <br> [sokol^h] <br> school <br> [sak^wnn] <br> four <br> [diuk o] <br> answy <br> [s^k $\left.1 t^{\prime}=\right]$ <br> sick/ilI <br> [n^k^l] <br> naughty <br> [sikll] <br> foot <br> [sakol] <br> rice <br> [pnknn] <br> meal of anima) |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [kancan] <br> straight <br> [ $k a \not \subset \wedge$ ] <br> must <br> [knnton] <br> left <br> [k^1วy] <br> decrease <br> [kirlm] <br> send <br> [Kwnli] <br> clay_pot <br> [kwali?] <br> inside out <br> [kr^m^t] <br> holy <br> [kr^m^s] <br> Shompoo <br> [kli won] <br> A name of Java <br> nese day <br> [kliru] <br> falls | $\cdots$ |  |



| Sounds | Initial | Mcdial | Final |
| :---: | :---: | :---: | :---: |
|  | 「アuwns $\rceil$ <br> already <br> ［？unjo？］ <br> drink <br> ［？uwLt－］ <br> tree <br> ［Pumor］ <br> age <br> ［？sntan］ <br> there is <br> ［Panam］ <br> six <br> ［rasto］ <br> hand <br> ［？arop］ <br> want／will <br> ［Payミ1］ <br> difficult <br> $[?(n k \wedge \eta]$ <br> which <br> ［？iyo］ <br> yes | ［s＾2moniks］ <br> now <br> ［s＾pjonc．］ <br> had better <br> ［mosn？nkan］ <br> pity <br> ［piy＾mb＾pipon］ <br> him／her <br> ［kacəl＾k＾？ <br> accident <br> ［s＾7ubay＾n］ <br> one circle | ［？＾pe？］ <br> pick <br> ［pupor］ <br> fertilizer <br> ［rabor］ <br> fertilizer <br> ［sader EP］ <br> relative <br> ［disl？］ <br> first <br> ［bap＾？］ <br> father <br> ［？an＾？］ <br> child <br> ［cวd＾f］ <br> near <br> ［？จิw＾？］ <br> body <br> ［buk＾？］ <br> gpen <br> ［s＾yo？］ <br> together <br> ［j＾10？］ <br> ask for |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [ y$]$ | $[y \varepsilon n]$ <br> if $\left[\begin{array}{lll} \mathrm{yo} \end{array}\right]$ <br> yes <br> [yuyu] <br> crab <br> [yu] <br> sister |  |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [ j ] | [Jukor] <br> take <br> [jaro?] <br> orange <br> [j^nkวp=] <br> complete <br> [jarct ${ }^{\text {T}}$ ] <br> scream | [1iys] <br> other <br>  <br> snatch away <br> [ky^1] <br> teacher of <br> Islam <br> [niy^t] <br> aim <br> [Kiynt] <br> powerful <br> [sombคhy^n] <br> pray <br> [wny $n$ ] <br> time <br>  <br> should/had bet <br> ter <br> [b^njlr] <br> flood <br> [p^njะn] <br> place for cere <br> [p^nj^g] <br> lons |  |


| Sounds | Initial | Medial | Tinal |
| :---: | :---: | :---: | :---: |
|  | [j^w^h] <br> rain <br> [Ja muwnh] <br> Friday $[j \wedge g \circ \eta]$ <br> corn $\begin{aligned} & {[j a l \wedge s]} \\ & \frac{\text { clear }}{[j \wedge m]} \end{aligned}$ <br> watch <br> [j^r^n^ŋ] <br> performance <br> horselike <br> [j^wi] <br> Java/Qutside $[j \wedge w n]$ <br> Jeva | [p^njanəク^n] <br> you <br> [g^nj^r^n] <br> prize, reward <br> [2ijo] <br> green $[\text { rijol }]$ <br> change $\left[j \partial t ̨ \varepsilon t^{*}\right]$ $\frac{\text { long dry sea= }}{\operatorname{son}}$ $\left[\text { ?^njRet }{ }^{2}\right]$ <br> $\frac{\text { descend rapid- }}{\text { ly }}$ $[1 \wedge j \curvearrowright \eta]$ <br> then $[k \wedge j \nexists \eta]$ <br> wood $[\eta \wedge j \wedge ?]$ <br> ask for $[s i j i]$ <br> one $[k \partial r j \partial]$ <br> work |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[\mathrm{c}]$ | [cunkop=] <br> coyer oyer grave <br> [cəpət=] <br> fast <br> [cukop=] <br> enough <br>  <br> hanger <br> [cerutar] <br> curl <br> [cacat $=$ ] <br> handicap <br> [cuţol] <br> finish <br> [crity] <br> story | $[b \operatorname{ng}) \mathrm{n}]$ <br> temorrow <br> [m^ju]. <br> go foward <br>  <br> persuade <br> [banca?^n] <br> ceremonial <br> meal <br> [b^nci] <br> effeminate <br> [wnnci] <br> time <br> [picak=] <br> blind <br> [cancany] <br> be tied <br> [innc^n] <br> dare to do <br> something with out permission <br> [1^ncar] <br> fluent <br> [g^ncaran] <br> prose |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [s] | [clurot=] <br> a kind of mice <br> [cor เ?-corc?] <br> scream <br> [saj^ti] <br> truth <br> [sat^on] <br> a_year <br> [s^gat=] <br> able <br> $[\mathrm{s} ᄂ \mathrm{n}]$ <br> that/which <br> [sarıy] <br> often <br> [s^ray] <br> together <br> [slulop] <br> diving | [? عcs] <br> delicious <br> [sak leo ] <br> comfort <br> [m^c $\wedge$ ] <br> make up <br> [r^c l? ] <br> make the neces sary prepara= <br> tion <br> [g^nsAr] <br> fluent <br> [waysol] <br> go home <br> [m^s^?] <br> cook <br> [pis^n] <br> once <br> [biss] <br> able. <br> [p(rso] <br> know <br> [rosiln] <br> jute | [Iuwas] <br> well-mannered <br> [k^q〕s] <br> 11ke $[d \wedge d o s]$ <br> become <br> [? $\cap \mathrm{WAs}$ ] <br> sharp-sighted <br> [wados] <br> goat <br> [sowal^s] <br> eleven <br> [ ralns ] <br> twelve |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | ［srupot＝］ <br> sound of sIurp <br> ［swiwi］ <br> wing <br> ［ $\mathrm{s} \mathrm{\wedge}$ s］ <br> good <br> ［sono］ <br> nine <br> ［sikti．］ <br> foot <br> ［s $\wedge \mathrm{wnh}$ ］ <br> rice field <br> ［sakol］ <br> rice <br> ［s＾7iki］ <br> now <br> ［ง＾クリ］ <br> provisions <br> ［s $\wedge m p e ?]$ <br> until <br> ［siji］ <br> one | ［tヘsเ？］ <br> still，yet ［boso？］． <br> rotten <br> ［pason］ <br> message <br> ［p＾s cr］ <br> sand <br> ［dist？］ <br> first <br> ［7ns（I］］ <br> profit <br> ［7＾ris＾n］ <br> regular social gathering <br> ［basar］ <br> name of Java－ nese＿month | ［taros］ <br> then／straight |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [1] | [sorck] |  |  |
|  | jelous |  |  |
|  | [8ri] |  |  |
|  | the name of |  |  |
|  | rice geddes |  |  |
|  | [1^1r] | [mal $\mathrm{m}_{\text {m] }}$ | [cik^I] |
|  | born | night before | young_coconut |
|  | $[1 \wedge n \wedge n]$ | [pitulısMn] | $[\text { kumpol }]$ |
|  | man | celebration of Indonesian | gather |
|  |  | freedom |  |
|  | [10rs] | $\left[s l \wedge m \partial t^{7}\right]$ | $[\mathrm{P} 12]$ |
|  | Sick | safe | P11] |
|  | [10ro] | [j.21^8] | [n^k^I] |
|  | two | clear | naughty |
|  | [1iy3] | $[\mathrm{gO}-1 \varepsilon ?]$ | P䄧建] |
|  | other | clear | difficult |
|  | [I^y^g] | [P1mu] | sətung^i] |
|  | letter | science | one |
|  | [1^jın] | imelu ${ }^{-1}$ | ?^pNI] |
|  | then | follow | know by heart |
|  | $[\text { luw } h]$ | [mlesct] ${ }_{\text {c }}$ | ithukoil |
|  | more | miss the target | grow |
|  | $\left[\begin{array}{l} {[\text { l^nkoy }]} \\ \text { nore } \end{array}\right.$ | $\begin{aligned} & \text { ? } \wedge 1 \wedge \bigvee-7 \wedge l \wedge \eta \\ & \text { coarse grass } \end{aligned}$ | $\left[\begin{array}{l} \text { g } \wedge \text { g } \wedge I I \\ \text { five } \end{array}\right]$ |
|  |  | coarse prass |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [r] | [ $\mathrm{I} \partial \mathrm{pa}^{-}$] <br> watering_rice [1^r^n] ] <br> expensive <br> [ $1 \wedge$ buh $\wedge n$ ] <br> rest time <br> [Iumbon] <br> rice barn <br> İbat] <br> inside <br> [Iur^h] <br> village chief <br> [ $1 \wedge w$ l] <br> yarn <br> [10wo] <br> cave bat <br> [r^mpon] <br> finish <br> [rups] <br> colour <br> [rabo] <br> wednesday | [maI $\varepsilon ?$ ] <br> wake up <br> [goll] <br> disappointed <br> [mullh] <br> go home <br> [nomplon] <br> plunge <br> $[\mathrm{mol} l \mathrm{n}]$ <br> send_message <br> [siram] <br> take a bath <br> [baras] <br> rice <br> 'lıre.' <br> child | [d^mal] <br> make <br> [somp^1] <br> break <br>  <br> get <br> $\lceil c i k \wedge r]$ <br> two wheeled <br> buliock cart <br> [bubar] <br> after <br> [?nggar] <br> every time |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
|  | [rumiy:n] <br> first <br> $\left[\mathrm{r}^{\wedge} \mathrm{me}\right]$ <br> noisy/busy <br> [ rak ] <br> skirt <br> [roko ${ }^{0}$ ] <br> cigarette [rugi] <br> lose out 픈^7] <br> damage <br> [rosi?] <br> clean <br> [rAwl] <br> liana causing itching <br> [rint <br> here <br> [ruwa] <br> swamp | [7ukur^n] <br> 8ize <br> [ $\mathrm{\square} \wedge \mathrm{n} \wedge \wedge$ h] <br> direction <br> [taros] <br> straight for ward <br> [ $\quad \wedge \mathrm{r} \partial \eta]$ <br> together <br> [puron] <br> ready <br> [?urli] <br> life <br> [surnt] <br> letter <br> [sarlig] <br> often <br> [prei] <br> free/holiday <br> [surg] <br> name of Javanese <br> [nresap^kan] <br> be so kind | [nomar] <br> number <br> [sumbor] <br> source <br> [bscor] <br> leak <br> [kaponkor] <br> tast <br> [k^ntっr] <br> office <br> [b^njor] <br> then <br> [ $\left.g \wedge y^{\prime} \wedge \wedge x\right]$ <br> fast <br> [IJr] <br> North <br> [p^gor] <br> hedge <br> [tındor] <br> pLant |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[\mathrm{R}]$ | [Rokrn] <br> ask some one to shake the tree |  |  |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| $[h]$ | $[h(k t \wedge r]$ <br> hectare <br> [h^mp^r^n] <br> area | $[1 \wedge \mathrm{~h} \wedge \mathrm{n}]$ <br> land/area <br> [1^buh^n]. <br> rest time <br> [t^nu] <br> tofu | [luw (h] <br> more <br> [s^wNh] <br> rice field <br> g $h$ ] <br> yes <br> [8^goh] <br> ready [pol^h] <br> move <br> [bol^h] <br> thread $[j \wedge t \wedge h]$ <br> allocation $[g \wedge d \wedge h]$ <br> haye $[g \operatorname{lnj} \wedge \hat{h}]$ <br> a kind of rice <br> [ñil $\operatorname{nh}$ ] <br> borrow <br> [mullh] <br> go home <br> [sopind^h] <br> once |


| Sounds | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| . | , | - | $[k \wedge b \varepsilon h]$ <br> all <br> [winth] <br> seed. <br> [sugh] <br> rich <br> [?^dəh] <br> far <br> [?へk $\wedge$ ] <br> a lot <br> -W^y^h] <br> time/ grand child $[k \curvearrowright d \wedge h]$ <br> must $\cdots$ <br> house <br> white「tamb $\sim$ ? <br> add Pobnh: |

### 3.1.2. Phone Map of Contoid

From the sounds that are obtained, the phone map of contoid of Nganjuk Javanese dialect is :

Contoid of Nganjuk Javanese Dialect

|  |  |  |  |  |  | 4 <br> 0 <br> $\cdots$ <br> -1 <br>  <br>  | 4 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br>  <br> 0 <br> 0 <br> 1 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 |  | $\begin{aligned} & \mu \\ & \infty \\ & \underset{\sim}{\infty} \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { म } \\ & \text { H } \\ & \\ & \hline \end{aligned}$ | H \$ 0 0 But |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| stop | voiceless | p p |  |  |  | $t \mathrm{t}=$ | $t$ |  | k $k=$ |  | ? |  |
|  | voiced | b |  |  | d | d |  |  | $\underline{\square}$ |  |  |  |
| Africate | voiceless |  |  |  |  |  |  | c |  |  |  |  |
|  | voiced |  |  |  |  |  |  | j |  |  |  |  |
| fricative | voiceless |  |  |  |  | $s$ |  |  |  |  |  | h |
|  | voiced |  |  |  |  |  |  |  |  |  |  |  |
| lateral |  |  |  |  |  | 1 |  |  |  |  |  |  |
| trill |  |  |  |  |  | $\dot{r}$ |  |  |  | R |  |  |
| nasal |  | m |  |  |  | $n$ |  | n | $\eta$ |  |  |  |
| semivowel |  |  | w |  |  |  |  | y |  |  |  |  |

### 3.1.3. Contoid Description

Classifying of contoid is based on : (a). manner of articulation, (b) place of articulation, (c) the condition of vocal cords and (d) the condition of airstream.
a. Based on manner of articulation, contoids of Nganjuk Javanese dialect are divided into stop, africate, fricative, lateral, trill, nasal and approximant (semivowel).
b. Based on place of articulation, contoids of Nganjuk Javanese dialect are divided into bilabial, alveodental, alveolar, palato-alveolar, velar, uvular, glotal and laryngal.
c. Based on the condition of the vocal cords, contoids of Nganjuk Javanese dialect are divided into voiced and voiceless.
d. Bassed on the condition if the airstream contoids of Nganjuk Javanese dialect are divided into release and transition.

### 3.1.4. Contoid Ilustration

1. [p] is stop contoid, bilabial, voiceless, release. The air that will flow through the mouth is totally obtracted the lips and then exploded; the vocal cords
are not vibrating.
Example : [p nton] 'rice'.
2. [p ] is stop contoid, bilabial. voiceless, transition. The air that will flow through the mouth is totally obstructed by the lips, but is not exploded immediatelly; the vocal cords are not vibrating. Example : [? urip=] 'life'.
3. [b] is stop contoid, bilabial, voiced, release. The air that will flow through the mouth is obstructed by the lips, then it is exploded; the vocal cords are vibrating.

Example : [ bəl^s] ' nothing'.
4. [d] is stop contoid, alveodental, voiced, release. The air that will flow through the mouth is obtructed by the tip of the tongue against the blade of the teeth (part of the teeth between tip of the teeth and alveolar), then exploded after tip of the tongue is down; the vocal cords are vibrating. e.g. [d^dכs].
5. [ t ] is stop contoid, alveolar, voiceless, release. The air that will flow through the mouth is obstructed by the tip of the tongue against the gum behind the upper front teeth, then exploded after the tip of the tongue is down; the vocal cords are not vibrating. Example : [t^ni] 'farmer'.
6. [t ] is stop contoid, alveolar, voiceless, transition.

The air that will flow through the mouth is obstructed by the tip of the tongue against the gum behind the upper front teeth, but it is not immediatelly exploded; the vocal cords are not vibrating.

Example: ['^lımAt ${ }^{\text {T }}$ ] 'address'.
7. [d] is stop contiid, alveolar, voiced, release. The air that will flow through the mouth is obtructed by the tip of the tongue againts the gum behind the upper front teeth, then exploded after the tip of is down; the vocal cords are vibrating.

Example : [godon] 'leaf'.
8. [t] is stop contoid, palato-alveolar, voiceless, release. The air that will flow trhough the mouth is obstructed by the tip of the tongue aganst the back of the alveolar ridge then exploded after the tip of the tongue is down: vocal cords are not vibrating. Example: [ţukol] 'grow'.
9. [k] is stop contoid, velar, voiceless,release. The air that will flow through the mouth is obstructed by the back of the tongue against soft palate, then exploded after the tongue is down; the vocal cords are not vibrating.
10. [ $k^{\mathrm{x}}$ ] is stop contoid, velar, voiceless, transition. The air that will flow through the mouth is
obstructed by the back of the tongue againts soft palate, but it is not immediatelly exploded; the vocal cords are not vibrating.

Example : [mintok $\left.{ }^{=}\right]$'duck'.
11. [g] is stop contoid, velar, voiced, release. The air that will flow through the mouth is obstructed by the back of the tongue againts the soft palate, then exploded after the tongue is down; the vocal cords are vibrating.

Example : [g^ns^l] 'five'.
12. [?] is stop contoid, glotal, voiceless, transition. The air is obstructed because of the vocal cords are compeletely closed, then because of this airstream, vocal cords are open and it is causing sound; the vocal cords are not vibrating, the air does not immedately flow.

Example : [?upami] 'if'.
13. [c] is africate contoid, palatal, voiceless, release. The air that will flow through the mouth is obstructed by the blade of the tongue against the hard palate, then exploded after the blade of the tongue is down; vocal cords are not vibrating.

Example : [cußkop] 'dome/cover over the grave'.
14. [j] is africate contoid, palatal, voiced, release. The air that will flow through the mouth is
obstructed by the blade of the tongue aganst the hard palate, then exploded after the blade of the tongue is down; vocal cords are vibrating.

Example : [juko?] 'take'.
15. [s] is fricative contoid, alveolar, voiceless, release. The air that will flow through the mouth is partially obstructed by the blade of the tongue against the gum behind the upper front teeth; vocal cords are not vibrating.

Example : [sot^on] ' a year'.
16. [h] is fricative contoid, laryngal voiceless release. The air flow as turbulent, vocal cords are not vibrating.

Example : [l^h^n] área'.
17. [l] is lateral, contoid, alveolar, voiced, release. The air that will flow through the mouth is partially obstructed by tip of the tongue against the gum behind the upper front teeth; vocal cords are vibrating.

Example : [latr] 'born'.
18. [r] is trill contoid, alveolar, voiced, release. The air that will flow through the mouth is obstructed by the tip of the tongue againts the gum behind the upper front teeth, then released, but iimmediately pressed again. This condition happens for several
times; vocal cords are vibrating.
Example : [r^mpor] 'finish'.
19. [R] is trill contoid, uvular, voiced, release. The air that will flow through the mouth is obstructed by the tip of tongue againts the back of hard palate, then the tongue is released, but immediately pressed again. This condition happens several times; vocal cords are vibrating.

Example : [anjREt] 'descend rapidly'.
20. [m] is nasal contoid, bilabial, voiced, release. The air that will flows through the nose, because the air stream through the mouth is obstructed by the lips; vocal cords are vibrating.

Example : [m^gkl] 'later'.
21. [n] is nasal contoid, alveolar, voiced, release. The air flows through the nose, because the airstream through the mouth is obstructed by tip of the tongue against the gum behind the upper front teeth; vocal cords are vibrating.

Example : [n^mi] 'name'.
22. [ñ] nasal contoid, palatal, voiced, release. The air flows through the nose, because the airstream through the mouth is obstructed by the blade of the tongue against the hard palate; the vocal cords are vibrating.

Example: [గ̃วnว] 'guess'.
23. [ฤ] is nasal contoid, velar, voiced, release. The air flow through the nose, because the airstream through the mouth is obstructed by the back of the tongue against the soft palate; the vocal cords are vibrating.

Example : [q̊lam] 'praise'.

### 3.2. DATA ANALYSIS

### 3.2.1. Suspicious Consonant Phoneme Pairs <br> Consonant phoneme pairs of wich the phonemic status is doubted are :

1. [p - b]
2. [b - w]
3. [t - d]
4. [t - d]
5. [t - t]
6. [d - d]
7. [k - g]
8. [k - ?]
9. [h-k]
10. [j-y]
11. [j-c]
12. [c - s]
13. [1-r]
14. [r - R]
15. [m - n]
16. [n-ŋ]
17. [ñ-n]
18. [ñ-n]

### 3.2.2. Consonant phoneme Authentication

The authentication of Nganjuk Javanese consonant phonemes are proven by minimal pairs, complementary distribution and analogical environtment. Authentication by complementary distribution and analogicalenvirontment are done if minimal pairs are not available.
a. Sounds [p] and [b] are two different phonemes, because they contrast in minimal pairs.

> Table 2.
> Phonemes $/ \mathrm{p} /$ and $/ \mathrm{b} /$
Sounds Minimal pairs

| [p] | [pos ] | [pəţ^?] |
| :---: | :---: | :---: |
|  | fasting | white |
| [b] | [bวsว] | [bot^?] |
|  | using high level of javanese | cooking rice |

So, in Nganjuk Javanese dialect /p/ and /b/ are separate phonemes.
b. Sounds [b] and [w] are two different phonemes, because they contrast in minimal pairs.

Table 3.
Phonemes /b/ and /w/

| Sounds | Minimal pairs |  |
| :--- | :--- | :--- |
| $[b]$ | $[b \supset l u]$ | [bへll?] |
| spongecake | go home |  |
| $[w]$ | [wolu] | [w^ll?] |
|  | upside |  |

So, in Nganjuk Javanese dialect /b/ and/w/ are separate phonemes.
c. Sounds [t] and [d] are two different phonemes, because they contrast in minimal pairs.

Table 4.
Phonemes /t/ and /d/

| Sounds | Minimal pairs |
| :--- | :--- |
| $[t]$ | [moto] <br> eye <br> [modว] <br> make the same |

So, in Nganjuk Javanese dialect /t/ and /d/ are separate phonemes.
d. Sounds [ $t$ ] and [d] are two different phonemes, because they contrast in minimal pairs.

Table 5.
Phonemes /t/ and /d/

| Sounds | Minimal pairs |  |
| :---: | :---: | :---: |
| [t] | [tフw ${ }^{\text {a }}$ | [s)t〕] |
|  | tasteless | tobacco |
| [d] | [dJw ${ }^{\text {] }}$ | [s)d>] |
|  | long | palm leaf rib |

So, in Nganjuk Javanese dialect /t/ and /d/ are separate phonemes.
e. Sounds [t] and [t] are two different phonemes, because they contrast in minimal pairs.

# Table 6. <br> Phonemes /t/ and /t/ 

| Sounds | Minimal pairs |  |
| :--- | :--- | :--- |
| $[t]$ | [pot^^] <br> peace of land <br> [pot^^?] <br> white | [k^nti] <br> be patient <br> [k^nti] <br> with/by |

So, in Nganjuk Javanese dialect /t/ and /t/ are separate phonemes.
f. Sounds [d] and [d] are two different phonemes, because they contrast in minimal pairs.

Table 7.
Phonemes /d/ and /d/

| Sounds | Minimal pairs |  |
| :--- | :--- | :--- |
| [d] | [k^d^ŋ] <br> sometimes <br> [k^d^ŋ] <br> relative | [kudu] <br> a kind of plants |
|  | [kudu] <br> must |  |

So, in Nganjuk Javanese dialect /d/ and /d/ are separate phonemes.
g. Sounds [k] and [g] are two different phonemes, because they contrast in minimal pairs.

Table 8.
Phonemes /k/ and /g/

| Sounds | Minimal pairs |  |
| :---: | :---: | :---: |
| [k] | [kul)] | [kulon] |
|  | I | west |
| [g] | [gulכ] | [gulon] |
|  | sugar | collar |

So, in Nganjuk Javanese dialect /k/ and /g/ are separate phonemes.
h. Sounds [k] and [?] are not two different phonemes

1. Sound [k] that occur in initial and medial can not replaced by sound [?]
kuls can not replaced by ?uls
knllh can not replaced by ?^l th
k^ŋgg can not replaced by $? \wedge$ ngs
moniks can not replaced by moni?s
m^nk $c a n$ not replaced by m^n?
cukop can not replaced by cu?op
2. Sounds [?] and [ $k$ ] in the final position of the word are complementary distribution.

Table 9.
The allophones of phoneme / $k$ /
in the final position

| Sounds | Complementary Distribution |  |
| :---: | :---: | :--- |
| $[k]$ | mndək $=$ | 'stand' |
|  | ? anḑj" | 'egg' |
|  | m(nṭ $=$ | 'duck' |

[?]

| picak $=$ | 'blind' |
| :---: | :---: |
| piy^mbn? | 'alone' |
| Jlumpo? | 'gather' |
| $\wedge \mathrm{pe}$ ? | 'pick' |
| r^bo? | 'fertilizer' |
| sodere? | 'relative' |
| dist? | 'first' |

3. Sound [?] that occurs in initial and medialis not the allophone of phoneme $/ k /$, but it is only a glotal stop.

| ?up^mi | 'if' |
| :--- | :--- |
| ?ulつ | 'snake' |
| s^?iki | 'now' |
| ?^p^l | 'know by heart' |
| ?^ku | 'I' |

So, in Nganjuk Javanese dialect sound [?] is the allophone of phoneme /k/.
i. Sounds [h] and [k] are two different phonemes, because they contrast in analogical environment, and they cannot replace each other.

Table 10
Phonemes /h/ and /k/

| Sounds | Analogical Environment |  |  |
| :---: | :---: | :---: | :---: |
| [h] | [h^mp^r^n] | [1~h~n] | [?^ḋh ${ }^{\text {d }}$ |
|  | area | 1 and | far |
| [k] | [k^mbll] | [p^k^n] | [?2ndak] |
|  | coconut | meal for |  |

So, in Nganjuk Javanese dialect /h/ and /k/ are
separate phonemes.
j. Sounds [j] and [y] are two different phonemes, because they contrast in analogical environment, and they can not replace each other.

Table 11
Phonemes /j/ and /y/

| Sounds | Analogical environment |  |
| :---: | :---: | :---: |
| [j] | [?ijol] |  |
|  | change | persuade |
| [y] | [?iys] | [?วบว?-?วyว ?^n] |
|  | yes | snatch away |

So, in Nganjuk Javanese dialect /j/ and /y/ are separate phonemes.
k. Sounds [c] and [j] are two different phonemes, because they contrast in minimal pair.

Table 12.
Phonemes /c/ and /j/

| Sounds | Minimal pair |
| :--- | :--- |
| $[c]$ | [g^nc^r^n] <br> prose $[g]$ <br> $[g \wedge n j \wedge r \wedge n]$ <br> prize, reward |
| $j]$ |  |

So, in Nganjuk Javanese Dialect /c/ and /j/ are separate phonemes.

1. Sounds [s] and [c] are two different phonemes, because they contrast in minimal pair.

Table 13.
Phonemes /s/ and /c/

| Sounds | Minimal pair |
| :--- | :--- |
| $[s]$ | [m^s $\wedge ?]$ <br> cook <br> $[m \wedge c \wedge ?]$ <br> make up |

So, in Nganjuk Javanese Dialect /s/ and /c/are separate phonemes.
$m$. Sounds [l] and [r] are two different phonemes, because they contrast in minimal pairs.

Table 14.
Phonemes /l/ and /r/

$n$. Sounds $[r]$ and $[R]$ are not two different phonemes,
because they don't contrast in minimal pairs and never occupy the same position. [r] occurs in all position of word except in clusters with voiced non nasals. This position is occupied by [R].

Table 15.
Complementary distribution of Sounds [r] and [R]

| Sounds | Complementary | distribution |
| :---: | :---: | :---: |
| [r] | [rəkə?] | 'cigarette' |
|  | [b^rən] | 'together' |
|  | [prei] | 'free/holiday' |
|  | [grasəp^kan] | 'be so kind' |
| [R] | [?^njREt] | 'descend rapidly' |
|  | [gRopyo?] | 'over whelm' |
|  | [?^jR ${ }^{\text {[ }}$ ] | 'afraid' |
|  | [gフgRכk] | ' fall prematurely' |
|  | [dRכd $\mathrm{P}^{\text {] }}$ | 'beat rapidly' |
|  | [dR^mb ${ }^{\text {d }}$ ] | 'drumband' |

Sounds [R] in the initial of [Rכkən] that means ask someone to shake the tree is effected by its stem (adverb) [gว gR 3 ?] that means fall prematurely that become verb [ngRJ?].
So, sound [R] is not a phoneme, but an allophone of phoneme /r/.
o. Sounds [m] and [ $n$ ] are two different phonemes, because they contrast in minimal pairs.

Table 16
Phonemes /m/ and /n/

| Sounds | Minimal Pairs |  |
| :--- | :--- | :--- |
| $[m]$ | [mət)] | [m^ri] |
| $[n]$ | eye <br> put in order | recover <br> [n^ri] <br> dance |

So, in Nganjuk Javanese dialect /m/ and /n/ are separate phonemes.
p. Sounds [ $n$ ] and [ $\eta$ ] are two different phonemes, because they contrast in minimal pairs.

Table 17
Phonemes $/ n /$ and $/ \eta /$

| Sounds | Minimal Pairs |  |
| :---: | :---: | :---: |
| [n] | [t^ni] | [nər^t] |
|  | farmer | hit |
| [ๆ] | [t^クi] wake-up | [gar^?] dry, for season |

So, in Nganjuk Javanese dialect $/ n /$ and $/ \eta /$ are separate phonemes.
q. Sounds [ $\mathfrak{n}$ ] and [ $n$ ] are two different phonemes, because they contrast in minimal pairs.

Table 18
Phonemes／ $\mathrm{h} /$ and $/ \mathrm{n} /$

| Sounds | Minimal Pairs |  |
| :---: | :---: | :---: |
| ［ h ］ | ［ñoto］ | ［ñ＾ndか］ |
|  | real | touch |
| ［n］ | ［nつtつ］ | ［n＾nd＾？］ |
|  | put in order | dance |

So，in Nganjuk Javanese dialect／n／and／n／are separate phonemes．
r．Sounds $[\mathfrak{n}]$ and $[\eta]$ are two different phonemes，because they contrast in minimal pairs．

Table 19
Phonemes $/ \hat{n} /$ and $/ n /$

| Sounds | Minimal Pairs |  |
| :---: | :---: | :---: |
| ［ñ］ | ［ñวnว］ | ［ñmor］ |
|  | guess | mosquito |
| ［J］ | ［nonว） | ［n＾mo？］ |
|  | （like）that | angry |

So，in Nganjuk Javanese dialect／n／and／n／are separate phonemes．

### 3.2.3 Consonant Phonemes and Its Allophones

In Nganjuk Javanese Dialect there are twenty consonant phonemes /p/, /b/. /w/. /d/. /d/. /t/. /t/. /k/. /g/. /h/, /j/. /c/. /s/. /l/. /r/. /m/. /n/. /h/. and $/ \eta /$. The table below describes the occurence of consonant phonemes and its allophone :
a. Consonant /p/ with its allophones [p] and [p=]

Table 20.
Allophones of Consonant /p/

| Allophone | Initial | Medial | Final |
| ---: | :--- | :--- | :--- |
| $[p]$ | [puron] <br> willing | [5^mpg] <br> until | - |
| $p]$ | - | - | [?^rop=] <br> want |

Note :

1. Allophone [p] is the onset of a syllable, release.
2. Allophone [ p ] is the coda of a syllable, transition.
b. Consonant /b/ has the allophone [b]

Table 21.
Allophone of Consonant /b/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $[b]$ | $[b \wedge n j\lfloor r]$ <br> flood | $[k \wedge b \& h]$ <br> all | - |

Note :

1. Allophone [b] is the onset of a syllable, release.
c. Consonant /w/ has the allophone [w]

Table 22.
Allophone of Consonant /w/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $[w]$ | $[$ w^y^h $]$ | $[s \varepsilon w u]$ | - |
|  | time | a thousand |  |

Note :

- Allophone $[W]$ is the onset of a syllable, release.
d. Consonant [d] has the allophone [d]

Table 23.
Allophone of Consonant /d/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| [d] | [dinton] | [s^dt] <br> day | sell |

Note :

- Allophone [d] is the onset of a syllable, release.
e. Consonant /d/ has the allophone [d].

Table 24.
Allophone of Consonant /d/

| Allophone | Initial | Medial | Final |
| :---: | :---: | :--- | :--- |
| $[d]$ | [dudo? $]$ <br> dig | [punḍen] <br> grave | - |

Note :

- Allophone [d] is the onset of a syllable, release.
f. Consonant /t/ has allophones [t] and [t=]

Table 25.
Allophones of Consonant /t/

| Allophone | Initial | Medial | Final |
| ---: | :--- | :--- | :--- |
| $[t]$ | $[$ tigo $]$ | [wonton] | - |
|  | three | there is | - |
|  | - | - | [liwnt] |
|  |  |  | pass |

Note :

- Allophone [t] is the onset of a syllable, release.
- Allophone [ $t=]$ is the coda of a syllable, transition.
g. Consonant /t/has the allophone [t].

Table 26.
Allophone of Consonant /t/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $\left[\mathrm{t}_{\boldsymbol{\imath}}\right]$ | [țolı] <br> son | [cutal] <br> finish | - |

Note :

- Allophone [ $t$ ] is the onset of a syllable, release.
h. Consonant /k/ has allophones [k], [k=]. [?]

Table 27.
Allophones of Consonant /k/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $[k]$ | $[$ kur^ $]]$ | [suk〕] <br> glad | - |
| $\left[k^{2}\right]$ | - | - | [picok] <br> blind <br> [pondA]] <br> every |

Note :

- Allophone [k] is the onset of a syllable, release.
- Allophone [ka] is the coda of a syllable, transition.
- Allophone [?] is the coda of a syllable, transition.
i. Consonant /g/ has the allophone [g].

Table 28.
Allophone of Consonant /g/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| g | g^ņs^l <br> five | s^got <br> able | - |

Note :

- Allophone [g] is the onset of a syllable, release.
j. Consonant /h/ has the allophone [h]

Table 29.
Allophone of Consonant /h/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $[h]$ | [h^mp^r^n] <br> area | [t^hu] <br> tofu | [luw <br> more $]$ |

Note :

- Allophone [h] is the onset and coda of syllables.

```
k. Consonant /j/ has the allophone [j]
```

Table 30.
Allophone of Consonant /j/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $[j]$ | [juko'] <br> take | [banjlr] <br> flood | - |

Note :

- Allophone [j] is the onset of a syllable, release.

1. Consonant /y/ has the allophone [y].

Table 31.
Allophone of Consonant /y/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $[y]$ | $[y u]$ | $[s a d \partial y \partial]$ | - |
|  | sister | all |  |

Note :

- Allophone [y] is the onset of a syllable, release.
m. Consonant /c/ has the allophone [c]

Table 32.
Allophone of Consonant /c/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| [c] | [capat] | [w^nci] | - |
|  | fast | time |  |

Note :

- Allophone [c] is the onset of a syllable, release.
n. Consonant /s/ has the allophone [s]

Table 33.
Allophone of Consonant /s/

| Allophone | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [5] | [s^rəy] | [plrss] | [d^dos] |
|  | together | know | become |

Note :

- Allophone [s] is the onset and coda of syllables.

```
o. Consonant /l/ has the allophone [1]
```

Table 34.
Allophone of Consonant ///

| Allophone | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [1] | [lnır] born | [jol^s] clear | [ciknl] <br> young <br> coconut |
| Note : <br> - Allophone [l] is the onset and coda of syllables. |  |  |  |
| p. Consona | r/ has th | phones $35 .$ <br> Consonant | [R] |
| Allophone | Initial | Medial | Final |
| [r] | [r^mpon] finish | $\begin{aligned} & {[\mathcal{M r l}]} \\ & \text { child } \end{aligned}$ | [bjcor] leak |
| [R] | - | [?^jreh] afraid | - |

Note :

- Allophone [r] is the onset and coda of syllables.
- Allophone [R] is the onset. cluster of a syllable, release.
q. Consonant /m/ has the allophone [m]

Table 36.
Allophone of Consonant /m/

| Allophone | Initial | Medial | Final |
| :--- | :--- | :--- | :--- |
| [m] | [mundot] | [tumo] | [ronom] |
|  | buy | louse | six |

## Note :

- Allophone [m] is the onset and coda of syllables.
r. Consonant /n/ has the allophone [n]

Table 37.
Allophone of Consonant /n/

| Allophone | Initial | Medial | Final |
| :---: | :--- | :--- | :--- |
| $[n]$ | [n^mi] | [t^ndor] | $[?($ tan $]$ |
|  | name | plant |  |

Note :

- Allophone [n] is the onset and coda of syllables.
s. Consonant /f/ has the allophone [n]

Table 38.
Allophone of Consonant /n/

| Allophone | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| [ n ] | [ñt)] | [bninu] | - |
|  | real | water |  |

Note :

- Allophone [ñ] is the onset of a syllable.
t. Consonant /ŋ/ has the allophone [g]

Table 39.
Allophone of Consonant / $\mathfrak{j}$ /

| Allophone | Initial | Medial | Final |
| :---: | :---: | :---: | :--- |
| $[\eta]$ | $[\eta \partial l o m]$ | $[m \wedge \eta k e]$ | $[5 \wedge k(\eta]$ |
| praise | will | from |  |

Note :

- Allophone [g] is the onset and coda of syllables.
3.2.4 Consonant Phoneme Distribution

Consonant Phonemes Distribution of Nganjuk Javanese dialect can be seen in the table below :

Consonant Phoneme Distribution

| Conse: | Initial | Medial | Final |
| :---: | :---: | :---: | :---: |
| /p/ | [p $\wedge$ y $\wedge$ h] <br> tired | [b^p $\wedge^{\prime}$ ] | [trropa] |
|  |  | father | awning |
| /b/ | [bolns] nothing | [g^b^h] | - |
|  |  | rice |  |
| /w/ | [wolu] | [ḑuwe] |  |
|  | eight | have |  |
| / $/$ | [d^q>s] | [ $\mathrm{k} \wedge \underset{\wedge}{ }{ }^{\text {a }}$ ] |  |
|  | become | relative | - |
| /d/ | [dugni] | [pindo | - |
|  | dig | twice |  |
| /t/ | [toros] | [wonton] | [duw: $t^{2}$ ] |
|  | then | there | money |
| /t/ | [tuknol:] | [patn' ${ }^{\text {n }}$ ] |  |
|  | grow | white |  |
| /k/ | [kene] | [cukop] | [r^bok'] |
|  | here | enough | fertilizer |
| /g/ | [garen] | [s^gat] | - |
|  | sick | able |  |
| /h/ | [hekt^r] | [t^hu] | [luweh] |
|  | hectare | tofu | more |
| $/ \mathrm{L} /$ | [j^nkəp] | [p^nj^z] | - |
|  | complete | long |  |
| /y/ | [yen] | [sad>y ${ }^{\text {] }}$ | - |
|  | if |  |  |


| Cons. | Jnitial | Medisa | Final |
| :---: | :---: | :---: | :---: |
| /c/ | $\left[\begin{array}{l} {[\text { cap } \partial t]} \\ \text { fast } \end{array}\right.$ | [wnnci] |  |
| /s/ | $\begin{aligned} & \text { [s^rəy] } \\ & \text { toge ther } \end{aligned}$ | $\left[\begin{array}{l} \text { [pers2] } \\ \text { know } \end{array}\right.$ | $\left\lvert\, \begin{aligned} & {[s a \text { wol } \wedge s]} \\ & \text { eleven } \end{aligned}\right.$ |
| . $/ 1 /$ | $\left[\begin{array}{l} {[\text { l } \wedge n \wedge]} \\ \text { men } \end{array}\right]$ | $\left[\begin{array}{l} {[\text { melu }]} \\ \text { follow } \end{array}\right.$ | $\left[\begin{array}{l} {[\text { np } \wedge]} \\ \text { know by heart } \end{array}\right.$ |
| /r/ | $\left[\begin{array}{c} \text { [rup }] \\ \text { colour } \end{array}\right.$ | $\begin{aligned} & \text { [bar^s] } \\ & \text { rice } \end{aligned}$ | $\left\lvert\, \begin{gathered} \text { [bubar] } \\ \text { after } \end{gathered}\right.$ |
| /m/ | $\left\lvert\, \begin{gathered} {[\text { mınku] }} \\ \text { walk } \end{gathered}\right.$ | $\left[\begin{array}{l} \text { numpn' }] \\ \text { ride } \end{array}\right.$ | $\begin{aligned} & {[k \wedge g \partial m]} \\ & \text { for } \end{aligned}$ |
| /n/ | $\left[\begin{array}{c} \text { n^ri }] \\ \text { dance } \end{array}\right.$ | $\begin{aligned} & {[t \wedge n i]} \\ & \text { farmer } \end{aligned}$ | $\left[\begin{array}{l} {[b \supset t a n]} \\ \text { no } \end{array}\right.$ |
| /f/ | [y^ret] weed | $\left\lvert\, \begin{aligned} & \text { bani }] \\ & \text { night } \end{aligned}\right.$ | $\left\lvert\, \begin{aligned} & {[b \wedge r ə \eta]} \\ & \text { together } \end{aligned}\right.$ |
| /n/ | $\left[\begin{array}{l} {[\text { ñ } \varepsilon w 2]} \\ \text { hire } \end{array}\right.$ | $\left[\begin{array}{l} \mu \text { ñop }] \\ \text { cold } \end{array}\right.$ | - |

3.2.5. The cluster Occurence

| /pl/ in [pluor] | 'had better'. |
| :---: | :---: |
| /pr/ in [oprnsi] | 'operation' |
| /py/ in [gropyos] | 'overwhelming' |
| /br/ in [br^mb^g] | 'onion' |
| /bl/ in [bl^?] | 'lines for rice field' |
| /tr/ in [trims] | 'accept ${ }^{\text {P }}$ |
| /ml/ in [mlnku] | 'walk' |
| /mr/ in [mrucot] | 'released' |
| /nr/ in [nrimol | 'accept' |
| /nl/ in [nlistp] | 'slipped' |
| /gr/ in [nrandam] | - (do) submerged' |
| /gl/ in [nlubor] | 'paint' |
| /ñl/ in [hle $\mathrm{g}_{\text {ar] }}$ | 'turn on' |
| /ñr/ in [ñrupot] | 'slurp' |
| /gr/ in [gropyo?] | 'overwhelming' |
| /gl/ in [gl<ţ^?] | 'lie down' |
| /kr/ in [kraknl] | 'stone ${ }^{\text {P }}$ |
| /ky/ in [ky^i] | 'teacher of Islam' |
| /kw/ in [kwヘli] | 'clay pot' |
| /kl/ in [klabu] | 'can enter' |
| /jr/ in [3^jr ${ }^{\text {a }}$ ] | 'afraid' |
| /jl/ in [?Anjlo?] | 'descent rapidly' |


| /cr/ in [crito] | 'story' |
| :--- | :--- |
| /cl/ in [clurot] | 'a kind of mice'. |
| /sl/ in [slulop] | 'diving' |
| /sr/ in [sri] | 'the name of rice crop |
|  | goddes' |
| /sw/ in [swiwi] | 'wing' |




## concutsmon

## GHAPHER ITV

