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**A Contrastive Analysis of Pulaar and English
Sound Systems**

Mémoire de Maîtrise

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DEDICATION

I dedicate this work to my dearest parents : Alousseynou KA and Ngouille KA, to my brothers and sisters and to my grand parents Kelly KA and Ndella, who did everything so that my dreams could come true.

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INTRODUCTION

The aim of the comparative studies between African languages and others, undertaken by some African linguists was to discover genetic relationships between them, or to underscore the idea that, despite the fact they were separated by time and space during the process of their evolution, the shared features taken from a common ancestor have disappeared or acquired different forms.

In this study, we will be concerned with the influence an African language can have in the process of the acquisition of a second non African language; the languages at hand are Pulaar and English.

In other terms, the stress will be placed on a systematic comparison of Pulaar and English sound systems, to find out linguistic differences, which will eventually help us predict the difficulties Pulaar learners may encounter in the process of learning English.

A contrastive analysis of the Sound Systems of Pulaar and English will provide us with crucial insights into the very reasons why Pulaar learners mispronounce some English sounds.

The work includes five chapters. In the first chapter, we will describe the two languages, to show how the sounds of Pulaar and English function. To put it differently, in Chapter I, we will describe the sound system of Pulaar, and that of English will be dealt with in Chapter II.

The third chapter of the study will focus on the contrastive analysis of both languages. At this level the two systems will be matched together so as to find out similarities and differences between Pulaar and English.

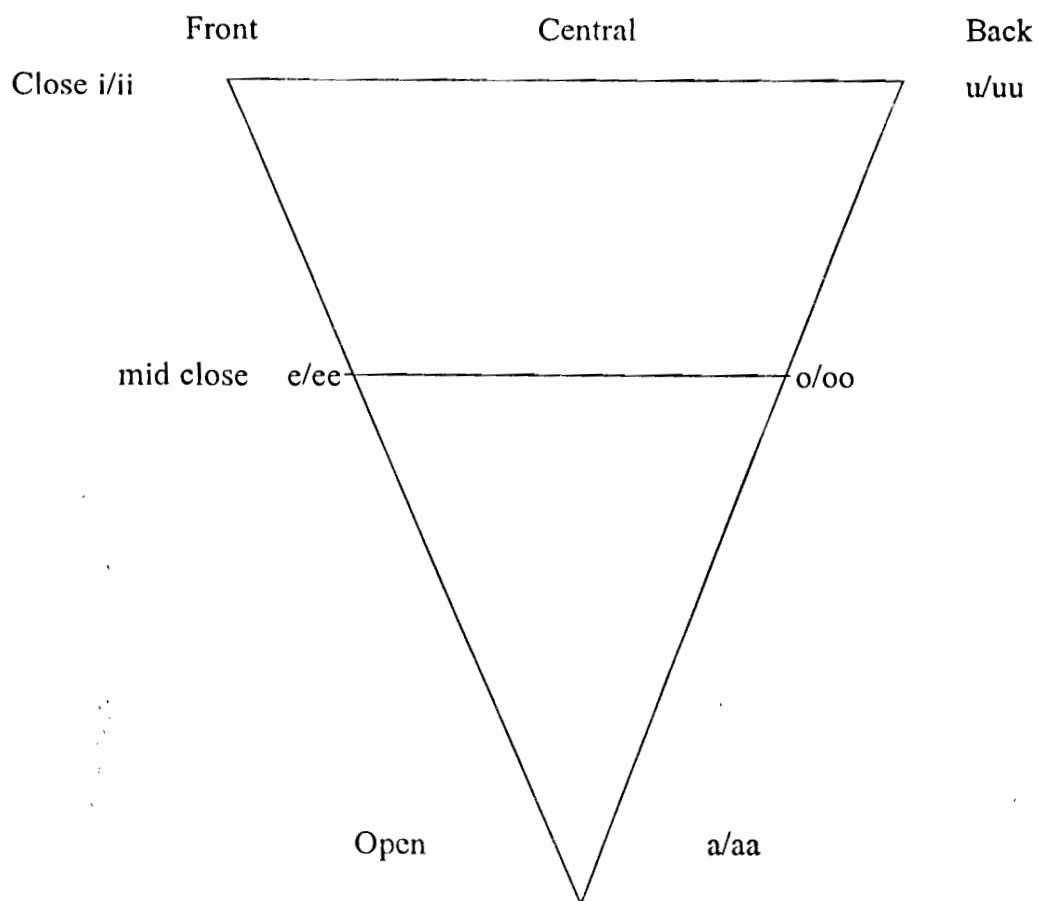
Subsequently, in the fourth chapter, we will predict the difficulties that Pulaar learners may encounter when learning English. Moreover, the factors that account for those difficulties will be identified.

In the last chapter, we will confine ourselves to the pedagogical implications, by suggesting solutions to the difficulties underscored in the fourth chapter.

CHAPTER I- DESCRIPTION OF THE SOUND SYSTEM OF PULAAR

I- 1- VOWELS

Chart of pulaar vowels



Source : Ndiaye (1981 : P 7)

Gimson (1989) describes a vowel as a type of sound depending largely on very slight variations of tongue position, which is most easily described in terms of

auditory relationships since no contact can be felt with precision when it is pronounced.

According to Ndiaye (1981), Pulaar has five (5) short and five (5) long vowels. They are : /i ; e ; a ; o ; u ; ii ; ee ; aa ; oo ; uu./

I- 1-1- Short vowels

They are : i ; e ; a ; o ; u.

/ i /

Examples :

-In initial position.

/ilde/ hot pepper ;

/innde/ name

-In medial position

/rimde/ to lie

/riwde/ to chase

-In final position

/ guri / skins

/ wuri / lived

[i] is a close front vowel, the lips are spread when this vowel is produced.

/ e /

Examples :

-In initial position

/ elde / gap ;

/ enndu / breast

-In medial position

/ demal / cultivation ;

/ fempaade / to plunge

-In final position

/ gure / cattle ;

/ sime / tobacco

[e] is a mid front vowel, the lips are spread in its pronunciation.

/ a /

Examples :

- **In initial position.**

/ anndude / to know ;

/ artude / to come back

- **In medial position.**

/ damal / door ;

/ jalde / to laugh

- **In final position.**

/ mbayla / blacksmith's workshop ;

/ awa / proper name ; yes

[a] is an open central vowel and unrounded.

/ o /

Examples :

- **In initial position.**

/ ombude / to be jealous of ;

/ okkude / to give

- **In medial position**

/ jolde / to get in ;

/ morde / to watch

- **In final position**

/ baylo / blacksmith ;

/ awo / fishing

[o] is a mid back vowel, the lips are rounded in its production.

/ u /

Examples :

- **In initial position**

/ ukkude / to put ;

/ uytude / to decrease

- **In medial position**

/ ombude / to be jealous of ;

/ okkude / to give

- **In final position**

/ enndu / breast ;

/ mbiru / wrestler

[u] is a close back vowel, the lips are rounded in its production.

I – 1- 2 - long vowels.

They are: ii ; aa ; oo ; ee ; uu

/ ii /

Examples:

In initial position

/ iiraade / to get stuck in the mud ;

/ iilde / to sneeze

In medial position.

/ diirde / to draw aside ;

/ liimde / to count

In final position.

/ αii / those ;

/ adii / to come before.

[ii] is a close front vowel, which is unrounded

/ aa /

Examples :

- **In initial position.**

/ aartude / to move apart ;

/ aamadu / proper name.

- **In medial position.**

/ haawde / to fish

- **In final position.**

/ puraa / sound produced to chase birds ;

/ wonaa / is not

[aa] is an open central vowel and unrounded.

/ oo /

Examples :

- **In initial position.**

/ oortude / to come (back) from grazing. ;

/oorde / to go (cattle) grazing

- **In medial position**

/ footde / to pull ;

/ soowde / to shout

- **In final position**

/oo/ this ;

/ jannginowoo / teacher

[oo] is a mid back vowel . The lips are rounded in its production.

/ ee /

Examples:

- **In initial position**

/ eesaade / to ally with (matrimonial)

- **In medial position**

/ feerde / to bump ; / reewde / puddle

- **In final position.**

/ Furee / corpse ; / janngoo[ee / students

[ee] is a mid front vowel, which is unrounded.

/ uu /

Examples :

- **In initial position.**

/ uurde / to smell ;

/ uulol / a variety of grass.

- **In medial position**

/ suurde / to smoke ;

/ juumde / to be mistaken

- **In final position.**

[uu] is a close back vowel. The lips are rounded in its production.

I- 1-3- Semi – Vowels

A semi – vowel is a rapid vocalic glide on to a syllabic sound of greater steady duration. Gimson (1994. P. 190)

Pulaar has two semi- vowels. They are: [Y], [W]

/ Y /

Examples:

- **In initial position**

Yaare [jaare] scorpion ;

yondere [jondere]

- **In medial position.**

Hayre [hajre] stone ;

ndiyam [ndijam] water

- **In final position**

/ y / does not occur in final position in Pulaar.

[y] is a palatal semi- vowel. It occurs initially and medially in words.

/ w /

Examples:

-**In initial position.**

[Waare] beard;

[waandu] monkey

-**In medial position**

[Wawewo] wing;

[Sao] back

-**In final position.**

[Tee] meat;

[Kao] uncle

[w] is a bilabial semi- vowel. It occurs in all positions. In words: initial, medial and final.

I- 1-4- Diphthongs

Gimson (1994) defines the sequences of vocalic elements included under the term “diphthong as those which form a glide within one syllable”

Diphthongs do not exist in Pulaar.

I – 1-5- Triphthongs

A triphthong is a combination of a diphthong plus / ə /.

Triphthongs do not exist in Pulaar

I -2- Consonants

A consonant can be defined as a type of sound, which is most described in terms of articulation, since contacts and movements involved, can be generally felt. Moreover, it can be produced with or without vocal fold vibration.

Chart of Pulaar consonants

Place of articulation ⇒	Bilabial		Labiodental		Alveolar		Palatal		Velar		Glottal	
Manner of articulation ↓												
	Voiceless	Vd	Voiceless	Vd	Voiceless	Vd	Voiceless	Vd	Voiceless	Vd	Voiceless	Vd
Plosives	p	b			t	d	c	j	K	g		
Implosives		ɓ				ɗ	y					
Nasals		m				n	ɲ			ŋ		
Pre-nasals		mb				nd	nj			ng		
Fricatives	f				s							h
Lateral					l							
Vibrant					r							
Semi-Vowels	w						y					

Source: NDIAYE (1981) P 8

I-2-1 Plosives

I-2-1-Oral plosives

Plosives are consonants which are realized with a rapid release of compressed air leading to a short, sharp explosion. They are: pb ;td ;kg ;cj (NDIAYE1981P10)

/pb/

Examples :

-In initial position

Peccal [pecal] a stick

Paagal [pagal] a pillar

Beccal [bacal] a big shoulder

Baagal [bagal] bucket

- In medial position.

Tempere [tampere] fatigue

Sempaade [sempaade] to dwell

Tembere [tembere] lining up

Sembaade [sembaade] to wash one's feet

- In final position.

Bilap [Bilap] axe

Boop [Boop] straw

[p,b] are bilibial plosives.[p] occurs in all positions, whereas [b] occurs in initial and medial positions.

/ t,d /

Example:

- In initial position

tonndu[tonndu] lip

tampere[tampere] fatigue

debbo [debo] woman

damal [damal] door

-In medial position

fetel [fetel] rifle

weltude [weltude] to be in good shape

weldude [weldude] to befriend

feerdude [weldude] to experiment something with someone

- In final position

alet [alet] Sunday

aset [aset] Saturday

[d] is now aspirated, it occurs only in words : initial and medial

/ c , j /

Examples:

-In medial position

Ceedu [cedu] dry season

Cumu [cumu] fire

Jire [jire] field mouse

jumri [jumri] honey

-In medial position

loocol [locol] a stick

laaci [laci] queue

wojere [wajere] rabbit

lajal [lajal] fate

[c,j] are palatal stops, they occur in words: initial and medial only.

Examples:

-In initial position

Kaaw [kaaw] uncle

Kure [kure] ammunition

Gure [gure] cattle; villages

Galle [galle] house

- In medial position

hanki [hanki] yesterday

hakkil [hakil] mind

heecge [hecge] hunger

nagge [nage] cow

[k,g] are velar stops, they occur only in word initial and medial position.

I-2-1-2 – Nasals

/ m /

Examples:

-In initial position

Maaro [maaro] rice

Maayo [maayo] sea

- In medial position

Njamalu [njamalu] panther

waame [waame] flood

-In final position

Ndiyam [ndiyam] water

nebbaam [nebaam] oil

[m] is bilabial nasal; it occurs in all positions: initial, medial and final.

/ n /

Examples:

-In initial position

nooda [nooda] crocodile

naage [naage] sun

-In medial position

laana [laana] train

jine [jine] swimming

-In final position

Asamaan [asamaan] sky

aan [aan] you

[n] is an alveolar nasal, it occurs initially , medially and finally in words.

/ ñ /

Examples:

-In initial position

ñamde [ñamde] food

ñaw [ñaw] sickness

-In medial position

miñiraawo [miñiraawo] brother

ngañaari [ngañaari] profit

-In final position

Wampaañ [Wampaañ] community work

yumpaañ [yumpaañ] aunt

[ñ] is a palatal nasal; it also occurs in all position: initial, medial and final positions

/ ŋ /

Examples:

-In initial position

ŋaccu [ŋacu] sword

-In medial position

Kolaŋa [kolaŋa] antelope

caŋaral [caŋaral] basket

-In final position

Siiraŋ [Siiraŋ] chair

Dolirŋ [Dolirŋ] hook

[ŋ] is a velar nasal, it is also found in all positions: initial, medial, and final positions.

I-2-2 4-Fricatives

Fricative refers to sounds made when two organs come close together that the air moving between them produces audible friction. There is no complete closure between the organs, (Crystal :1992 p. 143). Pulaar has three fricatives. They are: / f, s, h/.

/ f /

Examples:

-In initial position

Foyre [Foyre] glimmer

Foofaaygo [Foofaaygo] breath

-In medial position

kafu [kafu] festival

Foofaaygo [Foofaaygo] breath

-In final position

Def [Def] cook (order)

Fof [Fof] all

[f] is a labiodental fricative; it occurs in all position: initial, medial and final.

/ s /

Examples:

-In initial position

saare [saare] village

suudu [suudu] room

-In medial position

basal [basal] nap

asii [asii] dug

-In final position

fus [fus] nothing

kaalis [kaalis] money

[S] is an alveolar fricative; it is found in all positions: initial, medial and final.

/ h /

Examples:

-In initial position

hoore[hoore] head

halaa[haaaa] speech

-In medial position

boki [boki] Baobab

bohi [bohi] caïlcedrat

[h] is a global fricative. It occurs in initial and medial positions.

I-2-3- Implosives

Pulaar has three implosives. They are: / ɓ ,ɗ, ɣ /

/ ɓ /

Examples:

-In initial position

ɓanndu [ɓanndu] body

ɓoki [ɓoki] baobab

-In medial position

tobo[tobo] rain

luuɓade[luuɓade] to borrow

[ɓ] is bilabial implosive. It occurs only in initial and medial position.

/ɗ /

Examples:

-In initial position

ɗoyngol [ɗoyngol] sleep

ɗlɗi [ɗlɗi] two

nedɗo [nedɗo] person

[ɗ] is an alveolar implosive. It occurs only in initial and medial positions.

/ ɣ /

Examples:

-In initial position

ɣi'al [ɣi'al] bone

ɣiyam [ɣiyam] blood

ñuuyú [ñuuyú] ant

/y/ is a palatal implosive. It occurs only in the initial and medial positions.

I-2-4-Pre-nasals

Pulaar has four (4) pre-nasals. They are: /mb ;nd ;nj ;ng /

Examples:

-In initial position

ndeer [ndeer] inside

ndoondi [ndoondi] ash

-In medial position

ndoondi [ndoondi] ash

henndu [henndu] wind

[nd] is an alveolar pre-nasal. It occurs in initial and positions.

/ mb /

Examples:

-In initial position

mbaalu [mbaalu] sheep

mbeewa [mbeewa] goat

-In medial position.

Hombo [hombo] what

Jaambaara [Jaambaara] warrior

[mb] is a bilabial prenatal which occurs only in initial and medial positions.

/ nj /

Examples:

-In initial position

njuumri [njuumri] honey

njobdi [njobdi] salary

[nj] is an palatal prenasal. It occurs only in the initial position.

/ng/

Examples:

-In initial position

ngelooba[ngelooba] camel

ngilngu [ngilngu] worm

-In medial position

ngilngu [ngilngu] worm

nduṅngu [nduṅngu] raining season

[ng] is a velar pre-nasal. It occurs in initial and medial positions.

1-2-5 Approximants

Pulaar has one lateral /l/ and one vibrant phoneme: /r/

/l/

Examples:

-In initial position.

ladde [ladde] bush

lacci [laci] queue

-In medial position

alaadu [alaadu] horn

kulol [kulol] fear

-In final position

leggal [leggal] stick

boggol [boggol] rope

[l] is an alveolar lateral. It occurs in all-positions: in initial, medial and final positions.

/r/

Examples:

-initial position

Rawaandu [Rawaandu] dog

Roomru [Roomru] mouse

-In medial position

hoore [hoore] head

hare [hare] battle

-In final position

ndeer [ndeer] inside

Pulaar [Pulaar]

[r] is an alveolar vibrant which occurs in all positions.

I-2-6 Geminants

Some consonants of Pulaar are produced with a length and an energy superior to that of the simple consonants . These are the geminants. Pulaar has sixteen (16).

They are: / mm, nn, ŋŋ, bb, dd, jj, gg, pp,tt, cc, kk, ɓɓ ,ɗɗ ,yy, yy /.

Their place and manner of articulation are like those of their simple counterpart.

Examples:

/mm / ñammi [ñamm] have eaten; ate

/nn / tinaare [tinnaare] effort

/ ŋŋ / kaŋŋe [kaŋŋ] gold

/ bb / abbere [abbere] grain

/dd / hoddu [hoddu] guitar

/ jj / gujjo [gujjo] thief

/ gg / feggere [feggere] ring

/ pp / sappo [sappo] ten

/ tt / pittride [pittride] broom

/ cc / gacce [gacce] shame

/ kk / hakke [hakke] sin

/ ɓɓ / toɓɓere [toɓɓere] point ; spot

/ ɗɗ / nedɗo [nedɗo] person

/ yy / le yyi [le yyi] races

/ ll / cellal [cellal] health

/yy / eyyo [eyyo] yes

I-3 –Assimilation

Assimilation is defined as the process of replacing a sound by another sound under the influence of a third sound which is near to it in the word or sentence the process of Assimilation can either be progressive or regressive.

In Pulaar, assimilation is both progressive and regressive.

-Progressive assimilation.

Examples:

Fijduude [Fijduude] Fijduude to play with

Here under the influence of [j], [d] is replaced by another consonant [j].

Fecctude [Fecctude] ⇒ Fecctude to share

In this example, [t] is replaced by [c] under the influence of [c].

Poo y do [Poo y do] → Poo y y do

Here also under the influence of / y /, [d] is replaced by a palatal implosive [y].

-Regressive assimilation

Examples :

Soodtude [Soodtude] ⇒ Soottude

In this example, [d] is replaced by [t], because of the influence of [t]

Seednude [Seednude] ⇒ Seennude

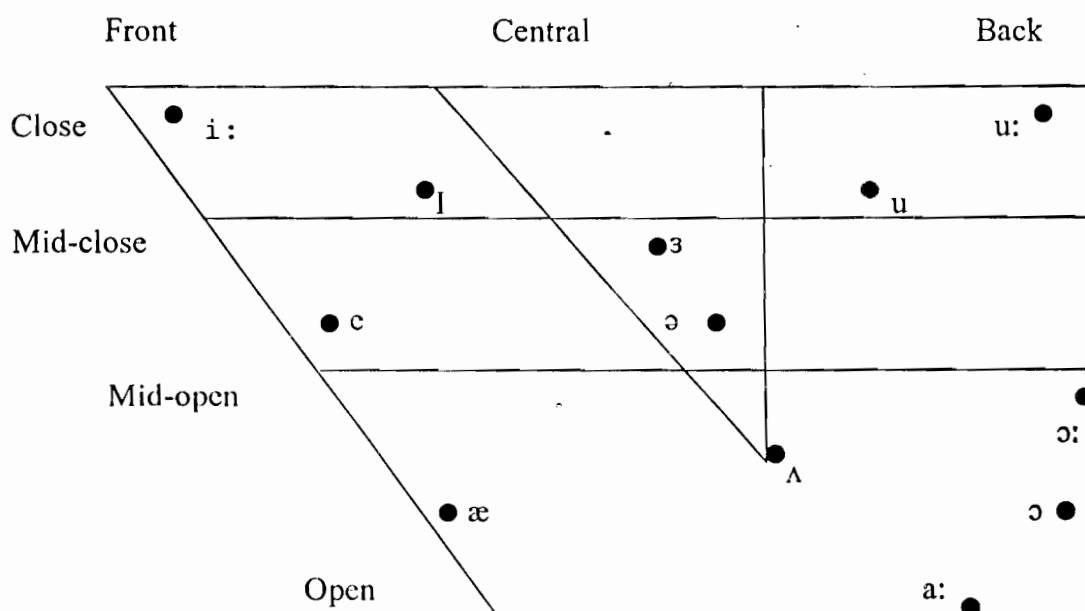
Here under the influence of [n], [d] is replaced by [n].

I- 4- Word stress

Pulaar syllables are equally distributed, as a result, its vocalic system does not comprise suprasegmental features.

CHAPTER II- Description of English sound system

Chart of English vowels



Source : Adamczewski & Keen (1973)

II-1- Vowels

According to Gimson (94) English has twelve(12) pure vowels : five (5) long and seven (7) short vowels.

II-1-1 Short vowels

The seven short vowels of English are : i, ɪ, e, ə, ʌ, ɒ, ɜ

/ i /

- Examples :

-In initial position

Illegal [ɪlegəl]

In [ɪn]

Initial [ɪnɪʃəl]

Intervene [ɪntəveɪn]

-In medial position.

Pretty [prɪti]

With [wɪð]

Bid [bɪd]

Lid [lɪd]

-In final position

City [sɪti]

Pretty [prɪti]

Envy [envi]

Floppy [flɒpi]

The short RP vowel /ɪ/ is pronounced with a part of the tongue nearer to centre than to front, raised just above the close –mid position ; the lips are loosely spread ; the tongue is lax.

/ e /

Examples:

-In initial position

Education [edʒukeɪʃn]

Error [erə]

Erratum [erə:təm]

Escalate [eskəleɪt]

-In medial position

Bed [bed]

Set [set]

Dead [ded]

Head [hed]

-In final position

/ e / does not occur **In final position.**

The RP / e / is a mid-close front vowel. According to Gimson, in its production, the tongue is raised between the close –mid and open-mid positions ;the lips are loosely spread.

/ ə /

Examples:

-In initial position

allow [ə'laʊ]

announce [ə'naʊns]

annul [ə'nʌl]

annoy [ə'noɪ]

-In medial position

consider [kən'sɪdə]

overact [əʊvə'ækt]

overate [əʊvə'reɪt]

overbid [əʊvə'bɪd]

-In final position

mother [mʌðə]

labour [ləɪbə]

gather [gə'ðə]

father [fɑðə]

The RP / ə/ is a mid- close central vowel. In its production the lip position is neutral.

/ ʌ/

Examples:

-In initial position

under [ʌn̩]

up [ʌp]

Uncontested [ʌneɪnsɪdə]

Undefined [ʌndɪfaɪnd]

-In medial position.

Cup [kʌp]

Cut [kʌp]

Dull [dʌl]

Sun [sʌn]

-In final position

It does not occur in final position.

The RP /ʌ/ is a mid close central vowel. In its production, the lips are neutrally open.

/æ/

Examples:

-In initial position.

Anticipate [æntɪsɪpaɪt]

Apposite [æpəʊsɪt]

Applicator [æplɪkeɪtə]

Aptness [æptnis]

-In medial position

magazine [mægəzɪn]

hand [hænd]

lamp [læmp]

sat [sæt]

-In final position

/æ/ (it does not occur **In final position**)

The RP /æ/ is a mid-open front vowel. The lips are neutrally open, in its production.

/ʊ/

Examples:

-In initial position

/ʊ/ does not occur **In initial position**.

-In medial position

Room [rʊm]

Butcher [bʃʊtə]

Full [fʊl]

Put [pʊt]

-In final position

/ʊ/ does not occur in final position.

The RP /ʊ/ is a mid –close back and rounded vowel. It is pronounced with a part of the tongue nearer to the centre than to the back.

/ ʊ /

Examples:

-In initial position

office [ɒfɪs]

odd [ʊd]

ocular [ɒkjʊlə]

octopus [ɒkəpəs]

-In medial position

was [wɒs]

dock [dɒk]

gone [gɒn]

dog [dɒg]

-In final position

/ɒ/ does not occur in final position.

The RP /ɒ/ is an open back vowel. In its production the lips are rounded.

II-1-2 Long vowels.

The five long vowels of English are :i:, u:, ɔ:ɜ:, a:

/ i : /

Examples :

-In initial position

each [i:tʃ]

egress [i:ɡres]

ecl [i:l]

-In medial position

leaf [li:f]

reason [ri:zən]

piece [pi:s]

seize [si :z]

-In final position

tree [tri :]

be [bi :]

sea [si :]

fee [fi :]

The RP long | i :| is a close front vowel. The lips are open in its production.

| a :|

Examples :

-In initial position

are [a :]

after [aftə]

aunt [a :nt]

arbitrage [əbitridʒ]

-In medial position

charge [tʃɑ:dʒ]

pass [pa :s]

bath [ba :θ]

father [faðə]

-In final position

far [fa :]

car [ka :]

bar [ba :]

tar [ta :]

The RP long [a :] is an open back vowel .The lips are neutrally open during its production.

/ ɔ :/

Examples:

-In initial position

order [ɔ :də]

organizer [ɔ :gənaizə]

orchid [ɔ :kid]

ordain [ɔ :dein]

-In medial position

cord [kɔ:d]

horse [hɔ:f]

born [b] :n]

quart [kɔ:t]

-In final position

war [wɔ:]

door [dɔ:]

floor [flɔ:]

four [fɔ:]

The RP [ɔ:] is a mid –close back vowel, articulated with the medium lip-rounding.

/ u: /

Examples :

-In initial position

Oodles [u :dlz]

Ooze [u :z]

Ooh [u :]

-In medial position

rude [ru :d]

june [dʒu :n]

crucial [kru :ʃ iəl]

food [fu :d]

-In final position.

Blue [blu :]

Who[hu :]

Shoc[ʃu :]

Chew [ʃu :]

The RP [u :] is a close back vowel, lips are rounded in its production

/ ɜ : /

Examples:

-In initial position

Earl[3 :l]

Earth[3 :θ]

Early[3 :li]

Earldom[3 :ldəm]

/

-In medial position.

serve [s3 :v] ;

firs [f3 :st] ;

girl [g3 :l] ;

word [w3 :d]

-In final position.

The rp long /3:/ is mid-close central vowel. The lips are neutrally spread in its production.

II-1-3- Diphthongs

Gimson (1994 : P119.) defines the sequences of vocalic elements included under the term « diphthong » as « those which form a glide within one syllable ».

English has eight (8) diphthongs. They are : ei,ə , oi, iə,eə,uə,əu,au.

They are said to have a first element (the starting point), and a second element, (the point in the direction of which the glide is made).

Examples :ei\

-In initial position.

Ape [eip] ;

aim [cim] ;

eight [eit] ;

eighty [citi]

-In medial position.

Late [leit] ;
make [meik] ;
lady [leidi] ;
veil [veil]

-In final position.

Day [dei] ;
may [mei] ;
they [ʤei] ;
whey [wei]

The glide begins from slightly the close-mid front position and moves in the direction of rɒ /i/. The lips are spread in its production.

/ai/

Examples :

-In initial position.

Eider [aidə] ;
eidetic [aidetik] ;
Eiger [aigə] ;
einsteinium [ainstainiʌm]

-In medial position.

Time [taim] ;
bite [bait] ;
climb [klaimb] ;
light [lait]

-In final position.

Die [dai] ;
lie [lai] ;
pie [pai] ;
dye [dai]

The glide of /ai/ begins at a point slightly behind the front open position, and moves in the direction of the position associated with /i/ ; the glide is much more extensive than /ei/ ; the lips change from a neutral to a loosely spread position.

Examples : əu

-In initial position.

oak [əuk] ;
oaken [əukən] ;
oast [əust] ;
oat [əut]

-In medial position.

Soul [səul] ;
soulful [səulful] ;
soulfully [səulfuli] ;
sculless [səulis]

-In final position.

Know [nəu] ;
toe [təu] ;
so [səu] ;foe [fəu]

The glide begins at a central position, between close-mid and open-mid, and moves in the direction of RP /u/, the lips are neutral for the first element, but are rounded for the second element.

/au/

Examples:

-In initial position.

Out [aut] ;
outer [autə] ;
outface [autfeis] ;
outfall [autf ɔ:l] ;

-In medial position.

House [haus] ;
found [faund] ;
foundation [faundeɪʃən] ;
fount [faunt]

-In final position.

Cow [kau] ;
allow [əlaʊ] ;
how [haʊ] ;
now [naʊ]

The glide begins at a point between the back and front open positions. The lips change from a neutrally open to a weakly rounded position.

/iə/

Examples:

-In initial position.

Ear [iə] ;
eery [iəri] ;
eerily [iərili]

-In medial position.

Material [mətiəriəl] ;
weird [wiəd] ;
museum [mju:siəm] ;
fierce [fiəs]

-In final position.

Dear [diə] ;
fear [fiə] ;
near [niə]

The glide of rp /iə/ begins with a tongue position approximately the same as that used for /i/ , i-e close-mid and centralized front, and moves in the direction neutral throughout, with a slight movement from spread to open.

/eə/

Examples.

-In initial position.

Air [eə] ;
arian [æriən] ;
airily [eərili] ;

airmail [cəmeil]

-In medial position.

Rabbit [reəbit] ;

rarefaction [reərifækʃən] ;

rarefy [reərifai]

-In final position.

Fair [feə] ;

dare [deə] ;

care [keə]

The glide of rp /eə/ begins in the open-mid front position, i.e. approximately C [ε], and moves in the direction of the more open variety of /ə/, especially when the diphthong is final. The are neutrally open throughout.

/uə/

Examples:

-In initial position

Urdu [uədu]

-In medial position.

During [duəri] ;

durability [duərəbiliti] ;

durable [duərəbl]

-In final position.

Poor [puə] ;

pure [puə] ;

sure [suə]

RP /uə/ glides from a tongue position similar to that used for /ʊ/ towards the more open type of /ə/. The lips are weakly rounded at the beginning of the glide, becoming neutrally spread as the glide progresses.

/ɔi/

Examples:

-In initial position.

Oyster [ɔɪstə] ;

oil [ɔɪl] ;

oily [ɔɪli]

-In medial position.

Noise [nɔɪz] ;

point [pɔɪnt] ;

voyager [vɔɪədʒə]

-In final position.

Toy [tɔɪ] ;

boy [bɔɪ] ;

enjoy [ɪndʒɔɪ]

The tongue glide begins at a point between the open-mid and open back positions and moves to the direction of /i/.

II-1-4- Triphthongs.

The term triphthong is used the phonetic classification of vowel sounds on the basis of their manner of articulation : it refers to a type of vowel where there are noticable changes in quality during a syllable.

English has five (5) triphthongs. They are : / aɪə, əʊə,]iə, ɔɪə, aʊə/.

/ aɪə/

Examples :

-In initial position.

Iron [aɪən] ;

ironing [aɪəniŋ] ;

ironmonger [aɪənmʌŋɡə]

-In medial position.

Society [səsaɪəti] ;

liable [laɪəbl] ;

liability [laɪəbiliti]

-In final position.

Fire [faɪə] ;
choir [kwaɪə] ;
hire [haɪə] ;
lyre [laɪə]

/ɔɪə/

Examples:

-In initial position

/ɔɪə/ does not occur in initial position.

-In medial position.

Enjoyable [ɪndʒɔɪəbl] ;
enjoyably [[ɪndʒɔɪəbli] ;
buoyant [bɔɪənt] ;
joyous [dʒɔɪəs]

/eɪə/

Examples :

-In medial position

/eɪə/ does not occur in initial position.

-In medial position

/eɪə/ does not occur in medial position.

-In final position.

Player [pleɪə] ;
layer [leɪə] ;
conveyor [kənveɪə] ;
greyer [greɪə]

/əʊə/

Examples:

-In initial position.

/əʊə/ does not occur in initial position.

-In medial position

Myrrh [mɛəəh]

-In final position.

Noah [nəʊə] ;

mower [məʊə] ;

slower [sləʊə]

/aʊə/

Examples:

-In initial position.

Our [aʊə] ;

Ours [aʊəz] ;

Ourselves [aʊəselvz]

-In medial position.

Coward [k aʊəd] ;

nowadays [n aʊədəɪz]

-In final position

Shower [ʃaʊə] ;

flower [fl aʊə]

II-1-5 –Semi-vowels

English has two semi-vowels :j,w.

/j/

Examples :

-In initial position

You[j :u]

Use[ju :z]

Usage[j :uzɪdʒ]

-In medial position

Duty[dj :ti]

Lure[lj :uə]
Lurid[lj :uəɹɪd]
Mute[mj :ut]

-In final position

Value[v ælju :]
Duc[dju :]

[j] is a palatal approximant ; the vocalic allophones of RP/j/ are articulated by the tongue assuming the position for a mid- close vowel.

/ w /

Examples:

-In initial position

weed [wi :d]
woo [wu :]
what [wɒt]
weird [wiəd]

-In medial position

twelve [twelv]
twine [twain]
twinkle [twɪŋkl]
twirl [twɜ:l]

-In final position

/ w / does not occur in final position.

[w] is a velar approximant. The vocalic allophones of RP/ w / are articulated by the tongue assuming the position for a back close- mid to close vowel.

II-2- Consonants

Chart of English consonants

Manner of articulation ⇒	Plosives		Affricate		Fricatives		Nasals		Approximants	
Place of Articulation ↓										
Bilabial	-v p	+v b	-v	+v	-v	+v	-v	+v m	-v	+v w
Labiodental					f	v				
Dental					θ	ð				
Alveolar	t	d			s	z		n	l	
Post-alveolar									r	
Palato-alveolar			tʃ	dʒ	ʃ	ʒ				
Palatal									j	
Velar	k	g						ŋ	w	
Glottal					h					

Source : CRUTTENDEN (1994 : P. 138).

English has 24 consonants : SIX (6) plosives ; nine (9) fricatives, two, (2) affricates ; three (3) nasals and four (4) Approximants.

II-2-1- Plosives

II-2-1-1- Oral Plosives

They are : / p,b ; t,d ; k,g/

- /p,b/

Examples :

- In initial position.

Pin [pin] ;

Pen [pen] ;

beam [bi :m] ;

bed [bed]

-In medial position

Rapid [ræpid] ;

repose [riˈpɒz] ;

rabies [reɪbiːz] ;

rabid [ræbɪd]

-In final position

Rope [rəʊp] ;

hope [həʊp] ;

rope [rəʊp] ;

tab [tæb]

/p,b/ are bilabial plosives. /p/ is voiceless ; and aspirated in initial position. examples pin [p^hɪn] whereas /b/ is voiced.

/t,d/

Examples:

- In initial position.

Take [t^heɪk] ;

tame [t^heɪm] ;

date [deɪt] ;

doom [duːm]

- In medial position

Attend [ətend] ;

stay [steɪ] ;

leader [liːdə] ;

pidgin [pɪdʒɪn]

- In final position.

Date [deɪt] ;

late [leɪt] ;

mad [mæd]

Lad [læd]

/t,d/ are alveolar plosives. /t/ is voiceless, and aspirated in syllable initial position
Examples : [t^hɪn] ; (d) is voiced.

/k,g/

Examples :

- **In initial position**

Come [kʌm] ;
colour [kʌlə] ;
go [gə] ;
get [get]

- **In medial position**

Incur [ɪnkə:] ;
knockout [nəkaʊt] ;
eager [i:gə] ;
figment [fɪgmənt]

- **In final position.**

Leak [li:k] ;
peak [pi:k] ;
dog [dɒg] ;
beg [beg]

/k,g/ are velar plosives. /k/ is voiceless and /g/ is voiced. /k/ is aspirated in syllable initial position. Examples kin [kʰɪn]

II-2-1-2 – Nasal plosives

They are: /m, n, ŋ /

/m/

Examples :

-In initial position

might [maɪt] ;
may [meɪ] ;
make [meɪk]

-In medial position

simmer [sɪmə] ;
summer [sʌmə] ;
camel [kæmə]

- **In final position**

Some [sʌm] ;
calm [kɑ:m] ;

entryism [entrizəm]

/m/ is bilabial nasal , it is voiced.

/n/

Examples

-In initial position

night [nait] ;

numbly[n(mli) ;

nude [nju :d]

-In medial position

sinner [sinə] ;

sense [sens] ,

senate [senit]

-In final position

sun[sʌn] ;

fan [fæn] ;

fun [fʌn]

/n/ is an alveolar nasal , it is voiced.

/ŋ/

Examples :

-In initial position

/ŋ/ does not occur in initial position.

-In medial position

singer [siŋə] ;

monger[mʌŋə] ;

finger [fiŋə]

-In final position

sung [sʌŋ] ;

song [sɒŋ] ;

sing[siŋ]

/ŋ/ is a velar , which is voiced.

II-2-2- Fricatives

« Fricatives » refer to sounds made when two organs come close together that the air moving between the organs produces an audible friction. The nine fricatives of English are : /f, v ; θ, ð ; s, z ; ʃ, ʒ ; h/

/f, v/

Examples :

-In initial position.

feet [fi : t] ;

veal [vi : l]

-In medial position.

affair [əfaɪə] ;

ever [evə]

-In final position

leaf [li : f] ;

leave [li : v]

/f, v/ are labiodental fricatives. /f/ is voiceless and /v/ is voiced.

/θ, ð/

Examples :

- In initial position.

thief [θi : f] ;

there [zeə]

-In medial position

ether [i : θə] ;

leather [lezə]

- In final position.

Hearth [ha : θ] ;

soothe [su : z]

/θ, ð/ are dental fricatives. /θ/ is voiceless, and /ð/ is voiced.

/s,z/

Examples:

- In initial position

Cease [si :s] ;

zeal [zi :l]

- In medial position

Pieces [pi :siz] ;

easy [i :zi]

- In final position

Niece [ni :s] ;

was [woz]

/s,z/ are alveolar fricatives, /s/ is voiceless, and /z/ is voiced.

/ʃ,ʒ/

Examples :

-In initial position

sheet [ʃ i :t] ;

genre [ʒ ɑ̃r]

-In medial position

bishop [b i ʃ ə p] ;

pleasure [p l e ʒ ə]

-In final position

dish [d i ʃ] ;

rouge [r u : ʒ]

/ʃ,ʒ/ are palato -alveolar fricatives, /ʃ / is voiceless and /ʒ/ is voiced.

/h/

Examples:

-In initial position

hat [h æ t]

-In medial position

ahead[ə hed]

/h/ is a glottal fricative, it is voiceless.

II – 2 – 3 – Affricates

Affricates refer to a sound made when the air- pressure behind a complete closure in the vocal tract is gradually released.

The two affricates of English are : / tʃ , dʒ /

Examples :

-In initial position

cheese[tʃi :z]

church [tʃə: tʃ] ;

chuck[tʃʌ k]

-In medial position

feature[fi : tʃə] ;

featuring[fi : tʃəriŋ] ;

church [tʃə: tʃ]

-In final position

wretch [re tʃ] ;

watch [w tʃ] ;

witch [wi tʃ]

/ tʃ/ is palato- alveolar affricate ,it is voiceless.

/ dʒ /

Examples

-In initial position

gin[dʒin] ;

jail [dʒeɪl] ;

jam [dʒæm]

-In medial position

Margin[ma:dʒin] ;

marginal[ma:dʒinəl] ;

margarine[ma:dʒəri :n]

-In final position

Ridge[ridʒ] ;

Marge[ma:dʒ] ;

ravage[rævidʒ]

/dʒ/ is a palato-alveolar affricate ,it is voiced.

II- 2-4- Approximants

They are : /l , r/

/l/

Examples :

-In initial position

leave[li :v] ;

let [let] ;

lick [lik]

-In medial position

silly[sili] ;

lifeless[laiflis] ;

lilt [lilt] ;

little [litl]

/l/ is an approximant. It is voiceless.

/r/

Examples :

-In initial position

red[red] ;

real [riəl] ;

ready [redi]

-In medial position

Very[veri] ;

protect [prətekt] ;

prosper[prɒspə]

II-2-5- Consonant Clusters

English can combine more than two to make a cluster. An examination of the patterning of words may help us work out the syllable structures permitted.

English admits consonant groups in all word positions, namely, initially, medially, and finally.

-In initial position

Initial cc clusters

e.g. C + (l, r, w, p, t, m, n, v)

The first element can be any English consonant, except,

(r, ʒ, tʃ, dʒ, ð, ñ, ŋ, j.

Examples : slot[slɒt] , screw[skru:] stew[stju:]

-In medial position

The consonant clusters permitted in this position , occur very often at syllable boundaries. Nevertheless , we can have consonant groups **In medial position**, different from those occurring at syllable boundaries. Examples :

ladleful[leɪdlfʊl] , lactic[læktɪk] , capful[kæpful] , capricious[kæprɪʃəs]

-In final position

Final cc clusters can be divided into two groups :

a.. Nasal,lateral,or / s / plus another consonant,e.g. jump[dʒʌmp],

bend [bend], quilt[qwɪlt] ,cask[kɑːsk]

b.. A consonant plus one of these alveolar consonants / t,d,s,z ,θ /

Examples : laughed [laːfd, cats [kɑːts], dogs [dɒgz].

Final ccc clusters can be divided also into two groups :

a... those which involve a combination of two types of cc clusters ,i.e /

m,n,ŋ,l,s/ plus C plus / t,d,s,z, θ/

These nearly all involve suffixes Examples : jumps [dʒʌmps] ,cults [kʌlts]

b... Those which involve the double application of / t,d,s,z ,θ / ; the

majority again involve suffixes Example :

fifths [fɪːfθs] ,products [prɒdʌks]

Final CCCC clusters occur only rarely, as a result of the suffixation of a /t/

or /s/ morpheme: Examples: Prompts[pɹɒmpts] ; texts[tekts]

II-4- Assimilation

Daniel Jones defines assimilation as the process of replacing a sound by another sound under the influence of a third sound, which is near to it in the word. The term may also be extended to include cases where a sequence of two sounds coalesces and gives place to a single new sound, different from either the original sounds; this type of change may be termed coalescent assimilation.

In English there are two types of regressive assimilation:

assimilation regarding the place of articulation and the manner of articulation.

Assimilation regarding the place of articulation.

Examples:

That Boy [ðæt bɔi] [ðæp bɔi] in this example, /t/ is replaced by /p/ under the influence of a bilabial /b/.

Assimilation regarding the manner of articulation.

Examples:

That Side [ðæt saɪd] [ðæs saɪd] /t/ under the influence of a fricative consonant /s/, is replaced by /s/.

II-4- Word Stress

Stress is a suprasegmental feature of utterance. It is defined as the emphasis, which makes a particular word or syllable stand out in a stream of speech. It applies not to individual vowels or consonants, but to the syllable. Whatever it might be, a stress syllable is pronounced with a great amount of energy.

In English, there are three degrees of stress:

1 – Primary stress is marked by the last major pitch-change in a word.

Examples:

Su^ri^ːender; ^ˈpolish; ex^ˈcessive

2 – Secondary stress is marked by a non-final pitch change in a word. It occurs generally when there are two syllables before the primary stress.

Examples:

ˈMedi^ˈeval; ˈrepre^ˈsent; ˈrhodo^ˈdendron

3 – Zero stress always occurs after the primary stress.

Examples:

˘ Moment; com˘ plexion; en˘ counter

CHAPTER III CONTRASTIVE ANALYSIS

In this chapter, the stress is placed on the analysis of the differences and similarities between the sound systems of Pulaar and English. According to Robert Lado(1957)

' the student who comes in contact with a foreign language will find some features of it quite easy and others extremely difficult. Those elements that are similar to his native language will be simple for him, and those elements that are different will be difficult'

To conduct this comparison between the two languages, we will try to answer three main questions:

1. – Do Pulaar and English have the same phonemes?
2. – Are they similarly distributed?
3. – Do those phonemes have the same allophones?

Here is the comparison of both systems:

III – 1- Consonants

The Pulaar sound system comprises twenty-six (26) consonants, namely eight (8) plosives: /p, b, t, d, c, j, k, g / ; three (3) implosives: /ɓ, ɗ, ɗ / ; four (4) nasals : /m, n, ŋ, ñ/ ; four (4) pre-nasals: /mb, nd, nj, ng/ ; three(3) fricatives: /f, s, h/ ; one lateral : /l/ ; one vibrant: /r/ and two semi-vowels: /w, j/.

As to English, it has twenty-two consonants. They are : six(6) oral Plosives : /p, b, t, d, k, g / ; three (3) nasal plosives : /m, n, ŋ / ; two affricates :

/dʒ, tʃ/ ; nine (9) fricatives : /f, v, ʃ, ʒ, θ, ð, s, z, h / and two laterals : /l, r/.

III – 1-1- Plosives

III – 1-1-1- oral Plosives

/ p/

Pulaar and English have the phoneme / p/. In both languages, /p/ is bilabial and voiceless.

In English the phoneme /p/ has many variants:

- /p/ is aspirated when it is followed by a stressed vowel in initial position. Example: pen [p^h en], peak [p^h i k].
- A subsidiary member of the p- phoneme with nasal plosion is heard when /m/ or /n/ follows as in topmost [topməst], hypnotize [hipnətaiz]
- /p/ is silent in the initial groups /pt/ ; /pn/ ; /ps/. Examples : ptarmigan [ta:migan], pneumatic [njumætik], psalm [sa:m].
- /ps/ is laterally released when /l/ follows as in apple [æpl], couple [kʌpl]

/b/

The phoneme /b/ exists in both languages. Its features are similar in Pulaar and in English

/b/ has different phonetic realizations in English.

- A fully or partially devoiced allophone which occurs in syllable initial and final positions.
- A subsidiary member of English /b/ with nasal plosion is used when /m/ or /n/ follows as in submit [səbmɪt], abnormal [abnɔ:məl].
- /b/ is non-audible when final, and preceded by /m/ as in lamb [læm], also before /t/ in words as debt [det], doubt [daʊt].
- /b/ is laterally released when /l/ follows as in bubble [bʌbl], blow [bləʊ]

/t/

In both Pulaar and English the phoneme /t/ is a voiceless alveolar. Examples: It is similarly distributed in both languages.

/t/ has different realizations in English:

- like /p/, /t/ is aspirated before stressed vowels in initial position.

- Examples :

take [t^heɪk]...

- A nasally exploded [tⁿ] which is used before /m/ or /n/, as in satan [sætⁿn], cotton [kɒtⁿn], certain [səⁿtⁿn]
- A post alveolar /t/ is heard before /r/ as in tree [tri :]
- A dentalized /t/ is heard when /θ/ or /ʒ/ follows as in eight [eɪt^θ], look at this [lʊkət^ðɪs].

/d/

Pulaar has a similar voiced alveolar oral plosive. It is similarly distributed in both languages.

In English, the phoneme /d/ has more than one allophones:

- /d/ is realized with a nasal released when /n/ or /m/ follows, as in sudden [sʌdn], admirè [admaɪ̃]
- A laterally exploded /d/ is used before /l/ as in middle [mɪdl]
- /d/ is fully or partially devoiced in initial or final word position.

- /k/

In both Pulaar and English, /k/ is a voiceless velar oral plosive consonant.

In English it occurs in all word positions, whereas, in Pulaar, /k/ occurs only initially and medially.

The English k- phoneme contains several allophones:

- There are variations in the place of articulation dependent upon the nature of the following vowel.

Examples: keep [ki :p], key [ki :].

- Its place of articulation is more back when back vowels follow.

Examples: cottage [kɒtɪdʒ], car [kɑ :].

- There exist varieties of /k/ with different lip rounding. The most notable one being the allophone of /k/ followed by /w/ as in queen [kwi :n].
- [k] is aspirated in syllable initial position, as in come [kʌm], key [k^hi:].
- [k] is nasally exploded before /m/ or /n/ as in bacon [beɪkn]; acme [ækmi], thicken [θ i:kɪn].
- [k] is laterally released, when /l/ follows as in clean [kli:n], close [klɒz], etc.

- /g/

Pulaar has a similar voiced velar oral plosive consonant.

- /g/ is not similarly distributed in both languages. It occurs only initially and medially.

English /g/ has different phonetic realizations.

Like /k/, /g/ has members with places of articulation different from the principal member.

-When followed by the front vowels, [g] has a more front articulation, and a more back articulation before back vowels.

- There are also varieties of /g/ with different degrees of lip rounding, the most notable one being a /g/ used before /v/ as in language [læŋwidʒ].
- [g] is partially devoiced in initial and final positions.
- /g/ is nasally-exploded before /m/ or /n/ as in dogmatic [dɒgmætɪk] agnes [ægnɪs].
- [g] is laterally released before /l/ as in bugle [bʒʒl], glow [gləʊ].

III-1-1-2-Nasal Plosives

-/m/-

Pulaar has a similar voiced bilabial nasal plosive. The phoneme is similarly distributed in both languages. Nevertheless, /m/ has different phonetic realizations in English.

- [m] is partially devoiced when /s/ precedes. Examples:
- Small [smɔ:l].
- [m] is dentalized when /f/ or /v/ follows as in comfort [kʌmfət], information [ɪnfəːmeɪʃn], Dumville [dʌmvɪl]

/n/

A similar voiced alveolar nasal consonant also exists in Pulaar. In both languages /n/ occurs in all word positions. English /n/ has different variants.

[n] is partially devoiced when /s/ precedes. Examples: Sneeze [sni:z].

- [n] is dentalized when /θ/ or /ð/ follows as in enthusiasm
- [ɪnθʒuziæzɪn], in there [ɪn ðeə]

/ŋ/

Pulaar has a similar velar nasal consonant –Varieties of English /ŋ/ with more front and more back tongue-articulation occur as allophones of the phoneme.

Their use is determined by the nature of the adjacent vowel. A more back variety of /ŋ/ is used after /ɒ/ finally as in long [lɒŋ].

-varieties of different degrees of advancement are used after the front vowels the most front occurring after /i/, as in sing [sɪŋ].

III-1-2-Fricatives

Pulaar has three fricative consonants: /f, s, h/ ; whereas English comprises nine fricatives consonants, which pattern as follows : /f v; θ, ð, ʃ, ʒ, θ; s z; h; /.

In both Pulaar and English the phoneme /f/ is voiceless labio-dental fricative

/f/

It occurs in all word positions in the two languages

Pulaar has a similar voiceless alveolar fricative. The phoneme is similarly distributed in both languages. It occurs in all word positions.

A similar voiceless glottal fricative exists in Pulaar. /h/ occurs in initial and medial positions in both languages. In English, it is regarded as a strong voiceless onset of the vowel it precedes. Therefore it has as many allophones as there are English vowels, which follow /h/ phoneme

/v, z, θ, ð, ʃ, ʒ /

These six English fricatives consonants do not exist in Pulaar

III-1-3-affricates

English has two affricates /tʃ, dʒ / whereas Pulaar does not have any.

III-1-4- Approximants.

The phonemes /l, r/ are common to both Pulaar and English.

/l/

A similar voiced alveolar lateral approximant exists in Pulaar. The phoneme is similarly distributed in both languages. It occurs in all word positions.

English /l/ has different phonetic realizations:

[l] is dentalized when / θ / follows as in health [helθ].

[l] is devoiced before aspirated consonants as in clear [kliə]

[l] is dark before all other consonants except /j/.

[l] is clear before vowels and /j/.

/r/

Pulaar /r/ is a voiced alveolar vibrant, it differs from the English voiced alveolar approximant.

English /r/ has many variants:

[r] is devoiced after voiceless accented plosives /p,t,k/ as in proof [p^hru :f], try

[t^hr ai]

- A fricative [r] is heard when /d/ precedes as in drove [drɒv].

- III-2-Vowels

Both languages have long and short vowels. The relationship between long and short vowels is different in the two systems. Pulaar short vowels are different from long ones only in length, whereas English vowels have a difference of quality as well as of quantity.

Unlike English, Pulaar vowel system comprises neither diphthongs nor triphthongs.

III-2-1- Short Vowels.

Pulaar has five short vowels, which pattern as follows / i,e,o,a,u /. As to English, it has seven short vowels, they are: / i,e,æ ʌ,ɒ,ə,ɜ: ,u /.

/i/

Pulaar has a phoneme which is more close and more front than English /i/. In both languages /i/ is similarly distributed. It occurs in all word positions.

/e/

A similar phoneme exists in both languages. The phoneme is not similarly distributed in Pulaar and in English. In the former it occurs in all word positions; whereas in English /e/ does not occur finally in words. Pulaar /e/ is more close and more front than its English counterpart.

/u/

In Pulaar the phoneme /u/ is more back and less central than English /u/. In both languages the phoneme /u/ is similarly distributed. It occurs in all word positions.

/i,æ,ʌ ə ɒ u/

These four English vowels do not exist in the Pulaar system.

III-2-2- Long vowels.

Pulaar has five long vowels, which are: /i : ,a : ,o : ,u : ,e:/.

English has also five long vowels which pattern as follows: /i : ,a : ,u : ,ɔ : /

/i:/

Pulaar /i:/ is more close and more front than its English counterpart. The phoneme is similarly distributed in both languages. It occurs in all word positions. English /i:/ is realized as a diphthong in word final position and it does not occur before /ɲ/.

/a:/

Pulaar /a:/ is an open front vowel, whereas its English counterpart is an open back one. The phoneme is similarly distributed in both languages. It occurs in all word positions.

/ɔ:/

In Pulaar the phoneme /ɔ:/ is more and more back than the English one. In both languages /ɔ:/ occurs in all word positions.

/u:/

Pulaar /u:/ is more close and more back than English /u:/. The phoneme is similarly distributed in both languages.

English /u:/ can be diphthongized in final position. Better still, it does not occur before final /ɲ/.

/ɜ:/

This phoneme does not exist in the Pulaar vocalic system.

III-2-3- Semi-vowels.

/w/ and /j/ are common to both languages.

A similar phoneme exists in Pulaar. /w/ is not similarly distributed in both languages. It occurs in all word positions in Pulaar, whereas, in English /w/ occurs initially and medially in word. It may be noted that lip-rounding is closer when long /u/ follows as in woo [wu:], and may be less close before vowels remote from /u/ as in wide [waid].

/j/

A similar voiced palatal approxinant exists in Pulaar.

/j/ is similarly distributed in both languages. It occurs in word initial and medial positions.

III-3-Sound Sequence

The stress will be placed on the main differences and similarities between Pulaar and English as to sound clusters.

III-3-1- Consonant clusters

One of the most noticeable differences between Pulaar and English, lies in the different types of syllables structures permitted. The discrepancy comes from the fact that English can combine more than two consonants to make a cluster. An examination of the patterning of words may help us work out the syllable structures permitted.

There are many initial, medial, word juncture and final consonantal clusters in English.

- In initial position; English can have up to three consonants within a cluster. Examples: Stop, Spring, Splendid.
- Consonant clusters in medial position are common to both languages. They can admit cc and ccc consonant groups consonant groups.
- Clusters at word juncture are also common to both Pulaar and English. They can admit up to five consonants in this position. Examples: white house, /th/ ; first strike, /ststr/ ; eight diphthongs.
- As to syllable final position, English can have up to four consonants in a final cluster. Pulaar does not go as far as English in this area.

III-3-2- Vowel Clusters

Unlike English, which has eight diphthongs and five triphthongs, Pulaar vocalic system does not comprise any vowel cluster.

III - 4 Sound Assimilation

The process of assimilation is common to English and Pulaar. It can be either progressive or regressive in both languages. But, the former does not occur very often in English.

In Pulaar variation of manner of articulation can consist of either: nasal, plosive and implosive assimilations; whereas in English, in addition to nasal and plosive assimilations, the variation of manner of articulation can also be fricative.

III - 5 Word Stress

Unlike English, which has up to three degrees of stress, Pulaar syllables are equally stressed.

CHAPTER IV PREDICTION OF DIFFICULTIES

In this chapter, we will be concerned with the main difficulties that Pulaar learners may encounter at the level of consonants, vowels, assimilation and word stress, when learning English.

IV - 1 - Consonants

IV - 1 - 1 - Plosives

IV - 1 - 1 - 1 - Oral Plosives

/ P /

Since, Pulaar has a similar phoneme, Pulaar learners may not have any problem perceiving or producing this phoneme in isolation. But, the difficulties will probably lie in the production or the perception of the allophones of English

/ P /, which do not exist in Pulaar language: aspirated [p^h], nasalized [pⁿ], silent [p'], and the laterally released variety.

/ b /

In isolation, Pulaar learners may not have problems to produce or perceive this English phoneme. But, the difficulties are likely to occur when it comes to producing or perceiving the varieties of /b/ which do not exist in Pulaar: devoiced [b̥]; non-audible [b̤]; nasalized [bⁿ], post-alveolar [b̠], and the laterally realized one.

/ t /

Pulaar learners may find it difficult to produce the phonetic realizations of English /t/ since, aspirated [t^h], dentalized [t̪], nasalized [tⁿ], post-alveolar [t̠] and the laterally realized one do not exist in their mother tongue.

/d/

Pulaar has a similar phoneme; accordingly, Pulaar learners may encounter no difficulty in the production or the perception of isolated /d/. However, in connected speech, difficulties of production are likely to come out because of the non-existence of the allophones of /d/ in Pulaar, namely: the nasally released [dⁿ], the laterally released [d^l] and the fully or partially devoiced one.

/k/

In addition to the difficulties related to the production of the allophones of /k/ that Pulaar learners may face, they are also likely to have problems, when it comes to realizing the phoneme /k/ in final position, simply because, /k/ does not occur finally in Pulaar.

/g/

As in the case of the preceding consonant, Pulaar learners may find it difficult to produce /g/ in final position, since this phoneme does not occur finally in their mother tongue. Likewise, the phonetic variants of English /g/ may cause difficulties of production or of perception to Pulaar learners.

IV-1-1-2- Nasal Plosives

/m/

The phonetic variants of English /m/ namely the devoiced [m] and the dentalized [m], may cause perception production difficulties to Pulaar learners, but, in isolation they may not face those difficulties.

/n/

Pulaar learners may not find it difficult to produce or perceive English /n/ in isolation. Nevertheless, the allophones of /n/ that is, devoiced [n] and dentalized [n] may cause production or perception difficulties to the latter.

/ŋ/

A similar phoneme exists in Pulaar, therefore Pulaar learners may encounter no difficulty in producing or perceiving isolated /ŋ/. On the other hand, the allophones of /ŋ/ are likely to cause perception-production problems to Pulaar learners.

IV-1-2- Fricatives.

/s,f,h,/

Since, these phonemes are common to both languages, Pulaar learners may not find it difficult to produce or perceive the latter.

/v/

The phoneme /v/ does not exist in Pulaar, therefore, it may cause considerable perception-production problems to Pulaar learners. Accordingly, they may substitute it for the semi-vowel /w/. Examples: « void » [vɔɪd] ; value [vælju], are likely to be produced as : [wɔɪd], and [wælju].

/z/

As in the case of /v/, /z/ is likely to create perception-production problems to Pulaar learners. The latter may tend to replace it by the phoneme /s/.

For this purpose, « pieces » [pi:sɪz] ; « easy » [i:zi] and « was », may respectively be produced or perceived as : [pi:sɪs] ; [i:si] and [wɒs]. Likewise the devoiced allophone may also cause perception-production difficulties.

/θ/

The Pulaar system does not comprise this phoneme; therefore, Pulaar learners are likely to have perception-production difficulties as to English /θ/. Moreover, they are likely to substitute it for /t/ or /s/. Thus, « three » [θri:], hearth [hɑ:θ], and, thief [θi:f] may be produced as [tri:], [hɑ:t] and [sɪf].

/ð/

Pulaar does not have this phoneme either. Therefore, Pulaar learners may find it difficult to produce or perceive English /ð/. As a result, they may replace that phoneme by Pulaar /d/, so as to circumvent the difficulty related to the production or the perception of /ð/. Consequently, words such as leather [ledð] soothe [su:ð], are likely to be produced respectively as : [ledɔ] and [sud]

/ʃ/

As in the case of /θ/, this phoneme is likely to create production-perception problems to the learners. Pulaar learners are likely to replace it by the voiceless fricative /s/. Thus, words such as: sheet [shi:t], bishop [bɪʃp], may be perceived or produced respectively as : [shi:t], [bɪsɔp].

/ʒ/

This voiced fricative does not exist in Pulaar. Therefore, Pulaar learners may not be able to perceive or produce it accurately. They may rather replace the phoneme /ʒ/ by their voiced plosive /j/. For this purpose, words such as pleasure [pleʒə], rouge [ru:ʒ], are likely to be perceived or produced as [plejə], [ru:j].

IV-1-3-AFFRICATES

/tʃ / , / dʒ /

None of these phonemes exist in Pulaar. Therefore, they may create perception-production problems to Pulaar learners. The latter are likely to replace /tʃ /, /dʒ / by the voiced plosives /c/ and /j/. Accordingly, chuck [tʃʌk], cheese [tʃi:z], watch [wɒtʃ], gin [dʒin] jail [dʒeɪl], and jam [dʒæm], are likely to be produced as : [çʌk], [ci:z], [wɒc], [jin], [jeil], and [jæm].

IV-1-4 Approximants

/l/

Since Pulaar has a similar phoneme, Pulaar learners may not have any problem to perceive or produce this phoneme in isolation. Nevertheless, the difficulties are likely to occur in the production of the allophones of /l/, which do not exist in their native language : dentalized [l], devoiced [l̥], and dark [l̤].

/r/

Pulaar has a different phoneme, consequently, Pulaar learners may find it difficult to produce or perceive English /r/ either in isolation or in connected speech.

IV-2-Vowels.

IV-2-1. Short vowels

- / i /

Pulaar has a phoneme / i / which is more close and more front.

Therefore, Pulaar learners may have difficulties to produce or perceive English /i/. Moreover, they may replace it by their /i/. Thus: Intervene [int vi :n] ; pretty[priti], bid [bid], may be produced or perceived as : [int ə vin] ; [priti] and [bid]

/ e /

Pulaar /e/ is more close and more front than its English counterpart accordingly, Pulaar learners may find it difficult to produce English /e/. In addition, they are likely to substitute it for their native /e/, which is different from English /e/ in quality

/ u /

As in the case of /i/ Pulaar /u/ is different from its English counterpart in quality .As a result, Pulaar learners may have problems to produce or perceive accurately English /u/, since Pulaar /u/ is more back and less central.

/ ɒ /

This phoneme does not exist in Pulaar. Consequently, / ɒ / is likely to cause perception-production problems to Pulaar learners. Furthermore, they may substitute it for their native /o/. Thus, office [ɒfis], dock[dɒk]....may be produced or perceived as : [ofis], [dɒk].

/ æ /

English / æ / is likely to cause perception production difficulties to Pulaar learners, since the latter does not exist in Pulaar. For this purpose, the students may replace it by their native /a/ or /e/. So "opposite[æpəzɪt], applicator [æplikeɪtə] and aptness [æptnis] ,may be perceived or produced as: [aposɪt];[aplikejɪtə] and [aptnis].

/ ʌ /

This vowel does not exist in Pulaar either. A perception-production problem may occur. Furthermore, to circumvent the difficulties related to the production of English

/ ʌ /, Pulaar learners may replace it by their native /o/. Therefore, mother

[m.ʌðə], consider[kɒnsidə], may be produced or perceived as:[mado] ,[konsido].

/ ʌ /

English central / ʌ / ,does not exist in Pulaar; it may cause considerable perception-production difficulties to Pulaar learners.

As in the case of the preceding vowels, they are likely to substitute English / / for their native /a/. With this object, “mother”[m.ʌðə],under[ʌndə],may be produced or perceived as: [mado], [ando]

V-2-2-Long Vowels.

/ ɜ: /

This phoneme does not exist in the Pulaar system. Therefore, English / ɜ: / is likely to create perception-production problems to Pulaar learners. Moreover, the latter may substitute / ɜ: / for their native /e:/, a mid front vowel . Thus, earth [ɜ:θ] early[ɜ:li], may be perceived or produced as [e:f] ;[e:li]

/ɔ:/ ,/u:/

These vowels may not cause considerable problems to Pulaar learners. They may produce or perceive a more close and longer vowel for the phoneme /ɔ:/ and a more close and a more back for the English /u:/.

/a:/

Pulaar /a:/ is an open front vowel, whereas, its English counterpart is an open back one. Consequently, English /a:/ is likely to be produced with a more front articulation, by Pulaar learners. Thus, bar [ba:], tar[ta:], may be produced as :[ba:], [ta:]

/i:/

Pulaar learners may produce or perceive a more close and a more front vowel for the English phoneme /i:/.

IV-2-3-semi-vowels.

The English Semi-vowels may not cause considerable problems to Pulaar learners. Since they are common to both English and Pulaar.

IV-3- Vowel Sequence.

Diphthongs and triphthongs do not exist in Pulaar. Consequently, they may cause perception-production problems to Pulaar learners. The latter are likely to replace the sound /i/ of all the closing diphthongs by the Semi-vowel /j/ and sound /u/ of the closing diphthongs by /w/ as well.

Central /ɪ/ of the diphthongs and the triphthongs is also likely to be replaced by /o/.

IV-3-1-Diphthongs.

/ei/-/ai/-/ɔi/.

Following the above explanations, these phonemes are likely to be produced or perceived respectively as: /ej/, /aj/ and /ɔj/. Thus, « ape » [eip], lady [leidi] « time » [taim], « bite » bait], « point » [pɔint], and « voice » [vɔis]. may be produced or perceived as: [ejp], [lejdi],[tajm], [bajt],[pɔjnt].and [vɔjs].

/əu/ - /au/-

These phonemes are likely to cause perception-production problems to Pulaar learners. The latter may substitute the phoneme /u/ of these closing diphthongs for /w/. Thus, they may be perceived or produced respectively as /ɔw/ and /aw/. Accordingly, « know » [knau], « now » [nau], are likely to be produced or perceived as :[knəw], [naw].

/iə/ - /eə/ - /uə/.

Since Pulaar learners may replace the central /ə/ by /o/, the centering diphthongs are likely to be produced respectively as: /io/, /eo/, /wo/. Thus, « near » [niə], « pure » [puə], « fair » [feə], may be produced as: [nio], [pwo], [feo].

IV-3-2-Triphthongs.

As in the case of the diphthongs, English triphthongs may cause perception-production problems to Pulaar learners. Moreover, the triphthongs made of the sounds /i/ and /ə/, may have the /i/ sound replaced by the semi-vowel /j/, likewise, the phoneme / ə / is likely to be substituted for /o/. Thus. « iron » [aiən], « buoyant » [boiənt], may be produced as: [ajon],[bojont].

The triphthongs made of the sounds /u/ and /ə/ may cause perception-production difficulties to Pulaar learners as well. They are likely to replace the /u/ sound by the semi-vowel /w/ and /ə/ may also be substituted for /o/. Accordingly, « myrrh » [mæuəh], « our » [auə], may be produced as: [mowoh], [awo].

IV-4- Consonant Clusters.

Consonant clusters in initial and final position may cause production difficulties to Pulaar learners, because they do not exist in Pulaar. As a result, they are likely to insert new vowels between the consonants, which form the cluster in initial and final positions in order to overcome the difficulties.

The inserted vowel may be the one following the initial cluster or the vowel preceding the final cluster. Therefore, « plot » [plot], « plea » [pli], may be respectively produced as : [polot] ;[pili].

In final cluster, since the inserted vowel will be the one preceding the last consonant group, « bets » [bets], « help » [help], are likely to be produced as: [betes], and, [helep].

As to clusters occurring in syllable medial position, they may not cause any perception-production problems to Pulaar learners, since the same pattern exists in their mother tongue.

IV-4- Sound Assimilation.

Since in both languages, the variation of manner of articulation can consist of either nasal and plosive assimilations, Pulaar learners may not have production difficulties, when it comes to producing the assimilations of the nasals and the plosives.

But those difficulties are likely to occur with the assimilation of some English fricative consonants.

IV-5- Word Stress.

English has three (3) degrees of stress:

- 1- Primary Stress
- 2- Secondary Stress
- 3- Zero Stress

In Pulaar, syllables are equally stressed. To this end, Pulaar learners may find it difficult to produce or perceive English stress, because they are not familiar to the degrees of stress.

So, « char`acter » [kæriktə]; « ill`ustrate » [iləstreit]; « conc`entrate[ko
nsentreit]... ; are likely to be produced as : « character » ; « illustrate » ;
« concentrate ».

CHAPTER – V – SUGGESTIONS TO THE TEACHERS

After having listed the differences that might cause perception production problems to Pulaar learners in chapter IV, We would like now to suggest some solutions to those difficulties. But, before that, it is worth mentioning that the role of the teacher is very preponderant at this level, namely in the teaching of the sounds of the foreign language. That is why there are some pre-requisites he should satisfy. Among others, the teacher should have some knowledge of general phonetics and phonology in order to understand the phenomena of sound articulation, assimilation, sound sequences.

Such a knowledge will help him conduct a dictation in English, especially the sounds which cause perception-production difficulties to Pulaar learners.

Afterwards, his task should consist of helping Pulaar learners have a good linguistic ear. This requires systematic practice in listening for sounds by means of dictation.

V-1- Consonants

The main difficulties that Pulaar learners may encounter at this level, are related to the phonetic variations of English consonants; namely: aspiration, dentalization, devoicing, palatization, the non-audible release, lateral and nasal explosion.

Likewise, all the consonants that do not exist in Pulaar are likely to create perception-production problems.

Here are some suggestions to circumvent the difficulties related to consonants.

V-1-1- Plosives.

V-1-1-1- Oral Plosives.

/p, t, k/

In isolation, these English phonemes do not create perception-production problems to Pulaar learners, since they exist in their language.

In speech, these English phonemes were predicted to cause production problems, because of their allophonic variations.

So, the teacher has to put the stress on those specificities. He will need to draw their attention to the fact that /p, t, k/ should be aspirated before

accented vowels, dentalized when they precede a dental consonant, they also must be produced laterally when they are followed by /l/

Listening exercises will help them acquire the ability of producing the allophonic varieties of /p, t, k/.

-/b, d, g/.

As in the case of the preceding phonemes, /b, d, g/ may not create perception-production difficulties in isolation to Pulaar learners. But, because of their allophonic varieties, they are likely to cause production problems to the latter. Therefore, to solve those difficulties, the teacher should lay the emphasis on the fact that:

-/b, d, g/ are partially or fully devoiced in initial and final positions.

-They must be produced laterally when they are followed by the phoneme /l/.

-When they are followed by nasal consonants, /b, d, g/ must be produced with a nasal release.

Equally important, the teacher has to conduct listening and pronunciation practice in order to help Pulaar learners recognize and produce these English phonemes in connected speech.

IV-1-1-2- Nasal Plosives.

-/m, n, ŋ /-

In connected speech, these phonemes were predicted to create perception-production difficulties to Pulaar learners, because of their allophones.

Here also, the teacher should draw the attention of the learners to the fact that:

-English nasals must be devoiced when they are preceded by /s/.

-They must be dentalized when they are preceded by dental phonemes.

As in the case of the oral plosives, exercises of listening and pronunciation will help them recognize and produce English nasals in connected speech

V-1-2- Fricatives.

/v, θ, ð, f, ʒ /

These English fricatives were predicted to create perception-production difficulties to Pulaar learners, since they do not exist in their language. Therefore, to help the learners circumvent those difficulties, the teacher

should conduct the dictation of these phonemes in isolation, and then in connected speech.

The learners on their part, will have to write down those sounds and words phonetically, if they fail to write correctly the latter, the teacher in this case, will repeat the sounds a number of times in order to help them have a good linguistic hear.

This method will help Pulaar learners recognize and produce /v,θ,ʃ,ð/

Better still, /v/ for instance can be acquired by Pulaar learners, if they simply press the lower lip firmly against the upper teeth and force the air through the narrow passage thus formed.

As to /θ/, it may be acquired by simply placing the tip of the tongue right between the teeth, and, taking care to keep the tongue in that position, blowing so that a stream of air passes out between the tip of the tongue and the upper teeth (Articulation).

/ð/ also can be acquired, if the teacher uses the same method proposed in the case of /θ/.

But, care should be taken not to keep the tip of the tongue between the teeth so long.

/ʃ/ and /ʒ/ can be acquired by Pulaar learners, if the teacher uses their native /s/ as the starting point. Besides, they will have to pronounce the latter with a trace of lip-rounding. Care should be taken to produce voicing for /ʒ/.

-/z/-

As in the case of the preceding phonemes, /z/ is also likely to cause perception-production difficulties to Pulaar learners, because of the non-existence of a similar fricative consonant in Pulaar.

Therefore, to help the students acquire English /z/ and its allophones, the teacher can use the same method proposed in the case of /ʒ/. But care should be taken to avoid lip-rounding.

V-1-3- Affricates.

-/tʃ ,dʒ /-

English affricates were predicted to cause perception-production problems to Pulaar learners, because of the non-existence of their second elements in

Pulaar. Thus, to solve those difficulties, the teacher will use the same method suggested in the case of the fricatives.

The teacher should also draw their attention to the fact that the affricates are combinations of a plosive consonant and a fricative ; with this object, the learners must pronounce them separately, and then try to combine the two sounds.

V-1-4- Approximants.

-/l/-

In connected speech /l/ was predicted to create perception-production difficulties to Pulaar learners, because of its different phonetic realizations.

Therefore, the teacher will have to lay the emphasis on the fact that /l/:

- must be dentalized when it precedes the phoneme / θ /.
- Loses part of its voicing after accented /p, t, k/.
- Is clear before vowels and the semi-vowel /j/.
- Is dark when it precedes a consonant.

-/r/-

As in the case of /l/, /r/ was also predicted to cause production difficulties to Pulaar learners in connected speech. Thus, the teacher will have to put the stress on the allophones of /r/, which account for those difficulties. To reach that goal, he will tell them that :

-[r] is devoiced before a fricative consonant, when it is preceded by the phoneme /d/.

Once the learners are able to recognize the different allophones of /l/ and /r/, they will have to produce the latter in connected speech. Afterwards, the teacher should conduct dictation of these phonemes in isolation and in connected speech, so as to impress on students' mind. The phonetic realizations of /r/ and /l/.

V-2- Vowels.

As noted in the previous chapter, the vocalic features of English, namely, the shortening and lengthening of vowels, the clustering of vowels, may cause perception-production difficulties to Pulaar learners, since these phenomena do not occur in their native language. Likewise, the following vowels:

/i, u, ʌ, ɒ, æ, ə, ɜ:, ɑ: / are likely to create the above mentioned problems.

In details, here are some suggestions which might help overcome the difficulties at the level of vowels.

V-2-1- Short Vowels

/i/

The common error made by Pulaar students is to make a tense /i/, whenever they come across the phoneme /i/, and diphthongize it to produce the long English /i:/. To Pulaar students, the English /i/ is like Pulaar /i:/. Therefore, to help solve those difficulties, the teacher will have to draw their attention to the fact that Pulaar /i/ is more closed and more front than its English counterpart.

English /i/ can be acquired when the learners try to produce a vocalic sound in mid way between Pulaar /i/ and English / ə /.

- /u/

As in the case of the preceding vowel, the production or perception of English /u/ may be difficult for Pulaar learners. Furthermore, they are likely to substitute the English phoneme for their native /u/, the teacher can use Pulaar /o/ as the starting point. In addition, he will then have the students make a centralized /o/ by avoiding lip rounding.

/ʌ /

This English phoneme was predicted to create perception-production problems to Pulaar learners, because Pulaar does not have a similar vowel. Equally important, they may confuse it with the following vowels: /æ, a:, ɒ, ɜ:/ . Therefore, the teacher should help them make a clear distinction between /ʌ / and /æ, a:, ɒ, ɜ:/ . If he achieves this task, he will have to teach them English /ʌ / by considering

Pulaar /a/ as the starting point. Here, the learners have to make their native /a/ more central. /ʌ / can also be acquired by imitation, provided that Pulaar learners avoid adding the slightest trace of lip-rounding.

/ɒ /

Pulaar learners are likely to replace English /ɒ / by their native /o/.

Besides, they may confuse it with the following vowels: /ʌɔ:, a:/ . To acquire the pronunciation of English /ɒ /, Pulaar /o/ can be used as the starting point.

English / ɒ / can also be acquired, when Pulaar learners try to produce a vocalic sound in mid way between Pulaar two short vowels : /o/ and /a/ , by holding their tongue as low down and as far back as possible.

/æ/

/æ/ is another vowel which was predicted to create perception-production problems to Pulaar learners. Besides, they can find it difficult to distinguish between English /e/, /æ/ and / ʌ /, and also between /æ/ and their native vowels /e/ and /a/.

To acquire the best production of English /æ/, Pulaar learners have to produce a vocalic sound in mid way between their native /e/ and /a/ or try to imitate the baa-ing of a sheep.

/ ə /

Pulaar learners may find it difficult to produce or perceive this English vowel properly since the latter does not exist in their native language. Moreover, they may confuse it with other English vowels such as: / ɒ /, /e/.

To help students acquire English /ə/, the teacher should draw their attention to the fact that / ə / occurs only in unaccented syllables, where it can replace any vowel. Afterwards, the learners will try to produce a vocalic sound mid-way between their native /o/ and /e/, by making it more central.

V - 2 - 2 - Long vowels

/ ɜ: /

As in the case of / ə /, English / ɜ: / was predicted to create perception-production problems to Pulaar learners, because of the non-existence of this phoneme in their language. Furthermore, they may replace it by their native /ee/, or confuse it with English / ɔ: /.

To teach the pronunciation of / ɜ: / to Pulaar learners, the teacher will have to use English /ə/ as the starting point (we suppose that they have acquired properly English / ɔ: /). Care should be taken not to add the slightest trace of lip-rounding.

/a:/

The articulation of English /a:/ may be difficult for Pulaar learners. Moreover, they are likely to substitute it for their native /a:/, which is open and front. Therefore, to help the learners overcome this difficulty, the

teacher has to put the stress on the difference between the two vowels. When the students are able to distinguish English /a:/ from their native /a:/, it becomes then easy to teach them the pronunciation of English /a: /.

In addition, Pulaar learners will have to use their native /a:/ as the starting point, and then try to make it more back.

V -3- Sound Sequence.

V – 3- 1- Vowel Cluster

The problems that Pulaar learners encounter at this level, consist of replacing the sound /i/ of the closing diphthongs by the semi-vowel /j/, the sound /v/ of the closing diphthongs by /w/, and the sound /ɜ/ of central diphthongs by /o/. Now that the productions of /i/, /w/ and /e/ are acquired by Pulaar learners, we can presume that they will be able to produce, and perceive English diphthongs and triphthongs properly. If not, the teacher will have to explain them how the process of diphthongization and triphthongization operates. By doing so, it will be easier for Pulaar learners to acquire properly the production of English vowel clusters.

V- 3- 2- Consonant Clusters

The English language is noticeable for its large number of clusters of three consonants, even more. The difficulty in teaching clusters is caused by the three or four consonant groups, and Pulaar learners slip an inevitable vowel in between them. Therefore, to help the students acquire the production and the perception of English consonant clusters in initial and final positions, the teacher has to use Pulaar pre-nasals as the starting point, since these Pulaar phonemes occur in initial position.

V –4 – Sound Assimilation

The difficulties were predicted at the level of the fricative assimilation, because of the non-existence of some English fricative consonants such as:

/v, z, θ, ð, ʃ, ʒ /.

Now that Pulaar learners have acquired the production of those fricatives, they may not face the difficulties of assimilation at this level any longer. Nevertheless, the teacher should explain them how the phenomenon operates. Afterwards, he has to conduct some listening and pronunciation exercises.

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V – 5- Word stress

The main difficulty that Pulaar learners face, is that, ignoring the three (3) degrees of English stress, they are likely to produce the English words without taking into consideration the stressed syllable. Moreover, when it comes to perceiving the English words, they will have the impression that, only one part of the latter is produced by English native speakers.

Therefore, the teacher will have to explain them how the process of word stress works by putting the emphasis on the fact that primary stress is different from the secondary one, in the sense that it gives prominence to the syllable it applies. He should also tell them, that the stress does not apply to individual vowels and consonants, but to the syllables.

As to secondary stress, the emphasis will be put on the fact that, it is marked by a non-final pitch change in a word, and, it generally occurs when there are two syllables before the primary stress.

For the zero stress, he will also tell them that it always occurs after the primary stress.

Once this step achieved, it becomes now easy to teach them how to produce English stress. Better still, to make easier this task, the teacher will have to capitalize the syllable where the primary stress applies, and ask the students to pronounce with a great amount of energy, the capitalized syllable. Afterwards, he has to conduct the dictation of words which carry the three degrees of stress, so as to impress them on the learners' mind.

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Conclusion

When we first conceived the idea of this work our main objective was, through our own experience; to help teachers of English understand the causes which account for the difficulties that Pulaar learners have when trying to pronounce accurately some English sounds.

As it can be noticed in the first and the second chapters, we have tried to give a thorough description of the sound system of both English and Pulaar, to find out if the two languages have the same phonemes, whether those phonemes have the same allophones, and if the latter are similarly distributed?

Still in the same chapters, the emphasis is put on how sound sequences, word stress and sound assimilation operate in both languages.

The description of the sound systems of Pulaar and English is all the more important as it helps us single out the differences at each level of both languages, and from this perspective, predict the difficulties that Pulaar learners many encounter, when they learn English as a second language. That is why in the third chapter of the study, we have equated the phonemes interlingually to find out which phonemes of English are missing in Pulaar; the same thing has been done at the level of sound sequences, assimilation and word stress. Accordingly, predictions of difficulty have been made at each level in the fourth chapter.

The task did not consist only of pointing out the difficulties that might come out of those differences. We had also to suggest solutions to those problems. In the last chapter, suggestions are made at each level in order to help the teacher and students overcome the predicted difficulties.

Nevertheless, we should not lose sight of the fact that three hours or so a week, are far from being enough to deal with all these exercises. The teacher, next to this task, already has a full curriculum to finish, and students of different ethnic backgrounds to teach. Therefore, to ease his burden, he must be put in the best position possible, so as to do his job as needed.

To try out what has been said in this study, we plan to do a field study in order to find out how Pulaar students will behave concerning the above suggestions.

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