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**Sandipa Dey**  
Research Scholar,  
Department of English,  
Tripura University,  
Tripura, India

## **Making phonemic inventory for Tripura Bangla and its implications to the pedagogy of English language teaching in Tripura**

**Sandipa Dey**

### **Abstract**

Language learning involves learning the four skills – Listening, Speaking, Reading and Writing (LSRW). In the mode of teaching pedagogy prevalent in the educational institutions of Tripura the first two are ignored in English language learning to the utter detriment of the learners. This jeopardizes the acquisition of communicative proficiency in English as a second language (L2) by the vernacular medium students of the state. Listening and Speaking are crucially dependent on exposure to target language (TL). Students having different linguistic backgrounds have different perception on English sounds in the classroom. Phonemic inventory of a student's L1 must be a prerequisite to carry out mother tongue-based education, to teach second language or English language teaching (ELT). Through this, a teacher can detect the areas of problem and cause of errors a student makes in an ELT class. The phonemic inventory of student's L1 helps to overcome the difficulties in student's perception on learning sounds of TL. The teacher should be aware of distinction of phonemic systems of students' first language (L1) with L2 or TL that affects language learning. This article attempts to analyse this issue by making Phonemic Inventory for Tripura Bangla, one of the L1s of students in ELT classroom in Tripura.

**Keywords:** Tripura Bangla, phoneme, phonemic inventory, pedagogy, ELT

### **Introduction**

Tripura is a small Indian state surrounded by Bangladesh on three sides. During the partition many people from the eastern districts of Bangladesh i.e. Kumilla, Dhaka, Mymensing, Chattagram, Noakhali and Sylhet have migrated to Tripura. They brought their regional varieties of Bangla dialects. Tripura Bangla (Dhar 1977, Das 2001, 2007, 2009, 2011) has emerged out of commingling of various dialects over the years. Natural languages have different dialectal varieties. Only one of these dialects gets the official status of the 'standard' due to extra-linguistic factors like social, political, economic, literacy, print and other media etc. Hence the concept of co-existence of standard and non-standard varieties of languages arises. Standard variety of a language means the variety in which it is written and spoken formally and officially; non-standard variety refers to the variety which is a non-written form of that language: it has no script, no formal or official use but spoken in everyday life by the mass. From the sociolinguistic perspective Standard Colloquial Bangla (SCB) is regarded as the standard form of Bangla. Tripura Bangla (henceforth TB) is the Bangla dialect spoken by the Bangalee people living in and around the state capital Agartala. TB is one of the non-standard dialects of Bangla. It is the non-official lingua franca of the entire population of the state including tribes and non-tribes. However, any verbal medium of communication used by a homogeneous linguistic community is a language *per se*.

Listening, Speaking, Reading and Writing (LSRW) are the four required skills for acquiring a second language (L2). In the existing education system in most of the educational institutions in Tripura there is a little scope for the first two skills (L and S). Their learning process starts with first language (L1) instructions. Students' L2 acquisition revolves around R and W in Target Language (TL). This practice results in a fear psychosis and apprehension about learning English amongst learners. TB is the L1 for the students of English language teaching (ELT) classroom in Tripura. English is the TL here but the desired goal is hardly achieved. Learning a L2 is always influenced by one's mother tongue or L1.

**Corresponding Author:**  
**Sandipa Dey**  
Research Scholar,  
Department of English,  
Tripura University,  
Tripura, India

Students' linguistic background (here it's TB) affects their perception on learning the sounds of L2 or TL. Vernacular medium students of Tripura are basically ignorant of the phonemic differences between their L1 and L2 or TL and often stuck with their L1 influences and cannot communicate confidently. They cannot understand the allophonic variations their TL has in different context. The English teachers are also not adequately acquainted with the knowledge of varies of phonemic systems of students L1 and L2 or TL. This gap is a serious obstacle prohibiting the learners acquiring the TL. A comparison between both the phonemic inventories of students L1 and TL makes the teacher aware of the distinction of phonemic systems of both that helps detect the areas of problem and cause of errors a student makes in the process of language learning. This article aims to present the phonemic inventory for TB and applications of results in ELT for TB speaker students.

### Fundamentals of Phonemic Inventory

Phonemic inventory is "the complete set of phonemes set up for a particular language, especially when presented in an orderly manner, with consonants arranged by place, manner, voicing, etc., and vowels by height, backness, nasality, etc" (Trask 1996, P-266). Phoneme, minimal pair, allophonic variation and phonetic and phonemic transcription are the fundamentals of phonemic inventories:

#### Phoneme

Phoneme is "in many theories of phonology, a fundamental (often the fundamental) unit of phonological structure, an abstract segment which is one of a set of such segments in the phonological system of a particular language or speech variety, often defined as 'the smallest unit which can make a difference in meaning'." (Trask 1996, P-264)

#### Minimal pair

Minimal pair is "two words of distinct meaning which exhibit different segments at one point but identical segments at all other points. The existence of such a pair demonstrates conclusively that the two segments which are different must belong to different phonemes. For example, in English, fat [fret] and vat [vret] constitute a minimal pair for [f] and [v], as do also rifle [raifl] and rival [raivl], and also leaf [li:f] and leave [li:v]. Anyone of these pairs is sufficient to show that English [f], and [v] must be assigned to different phonemes (conventionally, /f/ and /v/, respectively); each is said to be a minimal pair for /f/ and /v/." (Trask 1996, P-224)

### Allophonic variation

The phonetic variation exhibited by a single phoneme in varying phonological environments. For example, the English phoneme /t/ may be realized phonetically as aspirated [t<sup>h</sup>] in tin, as unaspirated [t<sup>̚</sup>] in stand, as dental [t] in eighth, as nasally released [t<sup>n</sup>] in cotton, as laterally released [t<sup>l</sup>] in bottle, as glottalized [ʔt] in hit, and possibly in other ways, depending upon the particular accent. The set of realizations used by a speaker constitute the allophones of the phoneme /t/ in that speaker's speech. For two phones to be classed as allophones of a single phoneme, they must exhibit phonetic similarity, and they must not be in contrastive distribution. (Trask 1996, P-16)

### Phonetic and phonemic transcription

Phonetic transcription is "any transcription of words or connected speech which represents speech sounds in some considerable phonetic detail, often including some detail which is predictable by rule from other information. Such a transcription can be provided by any competent phonetician, even in the absence of any phonological analysis of the speech variety represented and even when the phonetician has no idea what the utterance means" (Trask 1996, P-271). Phonemic transcription is "any transcription of words or connected speech in a particular speech variety in terms of the phonemes which have been set up by the analyst for that variety. Such a transcription provides the minimum information necessary to construct a complete pronunciation by rule; it omits all predictable phonetic detail" (Trask 1996, P-268). International Phonetic Alphabet (IPA) is the alphabets developed by linguists in the end of the 19th century to document the human speech sounds.

### Determination of Phonemes in Tripura Bangla

In this section, projection of sounds, identification of sounds for minimal pairs, minimal pairs for clear-cut contrast are discussed. We find the varieties of sounds and identify their pairing to make their distinct identity to set in the inventories.

### A. Projection of Monophthongs in Tripura Bangla

Monophthong is "a vowel whose quality does not change perceptibly during its articulation" (Trask 1996, P-297). Das 2001 has argued for a vowel inventory <sup>[1]</sup> of five vowels i.e. *i*, *ε*, *a*, *ɔ*, *u* for TB as well as Bangla as a whole in non-derived lexical items. He has illustrated the presence of *e* and *o* is conditioned by the presence of a succeeding high vowel i.e. underlying *ε* and *ɔ* harmonizes to *e* and *o* respectively under the influence of following high vowel. Table 1 shows the occurrences of the different monophthongs in TB.

**Table 1:** Projection of Monophthongs in TB

Monophthong	Description	Occurrences		
		Initial	Medial	Final
i	front close (high) unrounded vowel	idal 'throwing lump' inḍur 'rat'	biʃ 'twenty/poison' biʃna 'bed'	etki 'hiccup' laɽi 'stick'
ε	front half-open (mid-low) unrounded vowel	εkla 'alone' ekʈu 'little bit'	ʃek 'clay' betki 'rebuff'	---
a	back open (low) unrounded vowel	ada 'glue' alga 'separate'	ʃal 'jump' baṅḍor 'monkey'	maiʃa 'girl/daughter' ʃula 'boy/son'
ɔ	back half-open (mid-low) rounded vowel	ɔʃo 'little bit' oʃuḍ 'medicine'	kɔmɔr 'waist' ʃoɽi 'fairy'	gɔʃo 'story' raṅɔ 'night'
u	back close (high) rounded vowel	uʃaʃ 'fast' ulu 'termite'	mus 'moustache' sur 'thief'	ʃu 'blow' abu 'new-born'

These TB vowels are presented in a vowel diagram in figure 1 below:

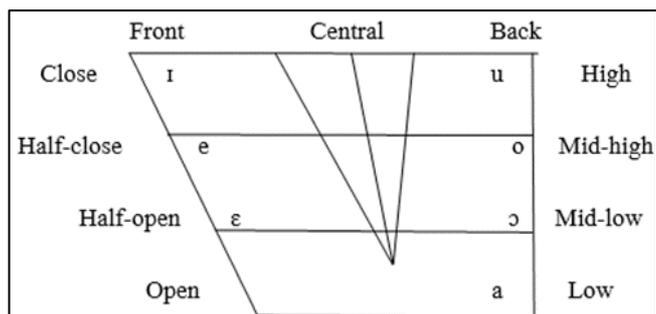


Fig 1: Monophthongs in TB

It is evident from Figure 1 that there are two front vowels *ɪ* and *ɛ*, no central vowel and three back vowels *a*, *ɔ* and *u* in TB. There are two close (high) vowels *ɪ* and *u*, two mid-low (half-open) vowels *ɛ* and *ɔ* harmonize to mid-high (half-

close) *e* and *o* respectively under condition, and one open (low) vowel *a* in TB. Of all the five vowels, three (*ɪ*, *ɛ* and *a*) are unrounded and two (*ɔ* and *u*) are rounded vowel. These vowels are checked out in following sets of minimal pairs to determine their distinct phonemic value:

- i). *ɪ* and *ɛ* *φɪt* 'back' *φɛt* 'tummy'
- ii). *a*, and *ɔ* *kal* 'time' *kɔl* 'machine'
- iii). *u* and *ɪ* *kul* 'lap' *kɪl* 'fist'

With this clear-cut contrast from minimal pairs we determine that phonemic inventory of TB has five distinct vowels: *ɪ*, *ɛ*, *a*, *ɔ* and *u*.

**B. Projection of Diphthongs in Tripura Bangla**

Diphthongs are the combinations of two vowel sounds, one gliding towards the other. TB attests closing diphthongs that start glide from relatively open areas and end in front-close or back-close areas. Diphthongs in TB are enumerated in Table 2.

Table 2: Projection of Diphthongs in TB

Diphthong	Description	Occurrences			
		Initial	Medial	Final	
Glide towards <i>ɪ</i>	<i>eɪ</i>	glide from front half-open (mid-low) vowel <i>ɛ</i> towards front close (high) vowel <i>ɪ</i>	<i>eɪ</i> 'this'	---	<i>leɪ</i> 'paste' <i>heɪ</i> 'that (previously referred)'
	<i>aɪ</i>	glide from back open (low) vowel <i>a</i> towards front close (high) vowel <i>ɪ</i>	<i>aɪkka</i> 'node' <i>aɪfa</i> 'idle'	<i>baiɪ</i> 'flatter' <i>daiɪ</i> 'dal'	<i>gaiɪ</i> 'kine' <i>fiɪlɪ</i> 'stich'
	<i>oɪ</i>	glide from back half-open (mid-low) vowel <i>ɔ</i> towards front close (high) vowel <i>ɪ</i>	<i>oɪ</i> 'hello (non-honrific)'	<i>moɪf</i> 'buffalo' <i>k<sup>h</sup>oil</i> 'oil-cake'	<i>moɪ</i> 'ladder' <i>koɪ</i> 'where'
	<i>uɪ</i>	glide from back close (high) vowel <i>u</i> towards front close (high) vowel <i>ɪ</i>	<i>uɪ</i> 'that'	<i>kuɪcca</i> 'eel fish'	<i>φuɪ</i> 'malabar spinach' <i>fuɪ</i> 'needle'
Glide towards <i>u</i>	<i>ou</i>	glide from back half-open (mid-low) vowel <i>ɔ</i> towards back close (high) vowel <i>u</i>	---	<i>ɔ<sup>h</sup>ou</i> 'run' <i>nouka</i> 'boat'	<i>bou</i> 'bride'
	<i>au</i>	glide from back open (low) vowel <i>a</i> towards back close (high) vowel <i>u</i>	<i>auf</i> 'a kind of paddy' <i>aula</i> 'orderless'	<i>bau</i> 'bard' <i>baun</i> 'dwarf'	<i>ɔ<sup>h</sup>au</i> 'chopper' <i>φau</i> 'leg'
	<i>eu</i>	glide from front half-open (mid-low) vowel <i>ɛ</i> towards back close (high) vowel <i>u</i>	---	<i>neul</i> 'mongoose' <i>ɔ<sup>h</sup>euwal</i> 'wall'	<i>keu</i> 'someone' <i>k<sup>h</sup>eu</i> 'scrape'

It appears from the above data that there are seven distinct diphthongs in TB: *eɪ*, *aɪ*, *oɪ*, *uɪ*, *ou*, *au* and *eu*. The four diphthongs ending in front-close areas are *eɪ*, *aɪ*, *oɪ* and *uɪ*.

The three diphthongs ending in back-close areas are *ou*, *au* and *eu*. The glides of TB diphthongs can be shown as follows:

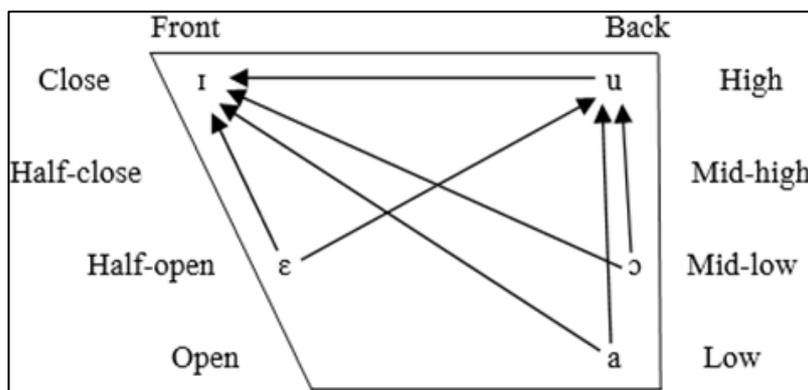


Fig 2: Glides of TB diphthongs

**C. Projection of Consonants in Tripura Bangla**

A consonant is a speech sound that is produced with some kind of obstruction (total or partial) of the air stream coming

to the mouth through the windpipe from the lungs. The occurrences of Consonants in TB are surveyed in Table 3.

**Table 3:** Projection of Consonants in TB.

Consonant	Description	Occurrences		
		Initial	Medial	Final
p	voiceless bilabial plosive	---	<i>kʰəppər</i> 'trap' <i>ʃəmpəd</i> 'asset'	---
b	voiced bilabial plosive	<i>bis</i> 'seed' <i>bilar</i> 'cat'	<i>ʃəmbəb</i> 'possible' <i>əbbaf</i> 'habit'	<i>lab</i> 'profit' <i>gərɪb</i> 'poor'
t̪	voiceless dental plosive	<i>ʔamfa</i> 'fun' <i>ʔagɪd</i> 'urgency'	<i>ʔaʔla</i> 'weightless' <i>kuʔta</i> 'dog'	<i>laʔ</i> 'kick' <i>bəʔ</i> 'cane'
t̪ʰ	voiceless aspirated dental plosive	<i>t̪ʰal</i> 'plate' <i>t̪ʰuɪn</i> 'chin'	---	---
d̪	voiced dental plosive	<i>d̪əm</i> 'breath' <i>d̪uf</i> 'fault'	<i>aɖər</i> 'caress' <i>bəɖna</i> 'pain'	<i>d̪ud</i> 'milk' <i>zɪd</i> 'anger'
t	voiceless alveolar plosive	<i>taha</i> 'money' <i>tukrɪ</i> 'basket'	<i>mutuk</i> 'crown' <i>bautta</i> 'short'	<i>kʰat</i> 'cot' <i>ʔit</i> 'back'
tʰ	voiceless aspirated alveolar plosive	<i>tʰɪk</i> 'right' <i>tʰela</i> 'push'	---	---
d	voiced alveolar plosive	<i>dəg</i> 'burp' <i>dak</i> 'call'	<i>hadu</i> 'knee' <i>kadal</i> 'jackfruit'	<i>mad</i> 'field' <i>kad</i> 'wood'
c	voiceless palatal plosive	---	<i>baucca</i> 'baby' <i>haccɪ</i> 'sneeze'	---
cʰ	voiceless aspirated palatal plosive	---	<i>iccʰa</i> 'wish' <i>aiccʰa</i> 'ok'	---
ɟ	voiced palatal plosive	---	<i>kaɟɟa</i> 'quarrel' <i>loɟɟa</i> 'shyness'	---
k	voiceless velar plosive	<i>kam</i> 'work' <i>kul</i> 'lap'	<i>ʔukka</i> 'hole' <i>aʔka</i> 'sudden'	<i>ʔuk</i> 'insect' <i>kak</i> 'crow'
kʰ	voiceless aspirated velar plosive	<i>kʰeʔ</i> 'cornfield' <i>kʰulɔʃ</i> 'shell'	<i>raikkʰəʃ</i> 'monster' <i>d̪əkkʰɪn</i> 'south'	---
g	voiced velar plosive	<i>gɔʃɔ</i> 'story' <i>gərɔm</i> 'hot'	<i>saqɔl</i> 'goat' <i>ʔaqɔl</i> 'insane'	<i>ʃaq</i> 'cress' <i>ruq</i> 'illness'
ɸ	voiceless bilabial fricative	<i>ʔesa</i> 'owl' <i>ʔul</i> 'flower'	<i>kɔʔal</i> 'forehead' <i>bɪʔɔd</i> 'danger'	<i>alaʔ</i> 'conversation' <i>gulaʔ</i> 'rose'
β	voiced bilabial fricative	---	<i>bɪβək</i> 'conscience' <i>ʃaβɔl</i> 'shovel'	---
s	voiceless alveolar fricative	<i>sa</i> 'tea' <i>sabrɪ</i> 'key'	<i>bisna</i> 'bed' <i>asanək</i> 'strange'	<i>mas</i> 'fish' <i>gas</i> 'tree'
z	voiced alveolar fricative	<i>zɔl</i> 'water' <i>zuta</i> 'shoe'	<i>ruzqar</i> 'income' <i>ʃuzug</i> 'chance'	<i>məzaz</i> 'temper' <i>ʔɪzɪz</i> 'onion'
ʃ	voiceless post-alveolar fricative	<i>ʃorrɪ</i> 'body' <i>ʃuʔkɪ</i> 'dry fish'	<i>kɔʃtɔ</i> 'hardship' <i>d̪uʃtɔ</i> 'naughty'	<i>maʃ</i> 'month' <i>baʃ</i> 'bamboo'
h	voiceless glottal fricative	<i>həqɔl</i> 'all' <i>haʔ</i> 'hand'	<i>ʃəhal</i> 'morning' <i>sahər</i> 'servent'	---
m	voiced bilabial nasal	<i>muda</i> 'fat' <i>madrɪ</i> 'soil'	<i>samra</i> 'skin' <i>qamla</i> 'tub'	<i>kʰam</i> 'envelope' <i>d̪am</i> 'price'
n	voiced alveolar nasal	<i>nam</i> 'name' <i>nɪɟm</i> 'rule'	<i>rənu</i> 'pollen' <i>zɪnuk</i> 'earshell'	<i>ban</i> 'dam' <i>d̪ɪn</i> 'day'
ŋ	voiced velar nasal	---	<i>ʔanɟka</i> 'fan' <i>anɟul</i> 'finger'	<i>bəŋ</i> 'frog' <i>ʃɪŋ</i> 'horn'
l	voiced alveolar lateral	<i>lub</i> 'greed' <i>lul</i> 'saliva'	<i>alɔ</i> 'light' <i>balu</i> 'sand'	<i>sul</i> 'hair' <i>ʃɪjal</i> 'fox'
r	voiced alveolar tap or flap	<i>rɔŋ</i> 'color' <i>rusrɪ</i> 'taste'	<i>lakrɪ</i> 'firewood' <i>nairkɔl</i> 'coconut'	<i>t̪ʰur</i> 'banana flower' <i>t̪ʰahur</i> 'deity/priest'
j	voiced palatal approximant	---	<i>bɪja</i> 'wedding' <i>nɪjuɟ</i> 'appoint'	---
w	voiced velar approximant	---	<i>kuwa</i> 'well' <i>luwa</i> 'iron'	---

Voiceless bilabial plosive *p* only occurs medially in heterosyllabic consonant cluster. Voiceless aspirated dental plosive *t̪ʰ* and voiceless aspirated alveolar plosive *tʰ* occur only initially. Palatal plosives *c*, *cʰ* and *ɟ* occur medially only after *c*, *c* and *ɟ* respectively in heterosyllabic consonant cluster. Unlike *t̪ʰ*, *tʰ* and *cʰ* voiceless aspirated velar plosive *kʰ* occurs non-finally but that too when medially, after *k* in heterosyllabic consonant cluster. *b*, *t̪*, *d̪*, *t*, *d*, *k* appears uniformly in all the positions. All the fricatives except *β* and *h* occur in all the positions uniformly. *h* occurs non-finally

while *β* does only medially. Among nasals *m* and *n* occurs in all the positions, only *ŋ* occurs non-initially. Tap or flap *r* and lateral *l* occur in all the positions. Approximants *j* and *w* only occurs in medial position intervocalically. Table 3 shows that there are different twenty-seven consonant sounds (i.e. *p*, *b*, *t̪*, *t̪ʰ*, *d̪*, *t*, *tʰ*, *d*, *c*, *cʰ*, *ɟ*, *k*, *kʰ*, *g*, *ʃ*, *β*, *s*, *z*, *ʃ*, *h*, *m*, *n*, *ŋ*, *l*, *r*, *j*, *w*) are distinctive in TB phonemics. The substitution of one of these sounds for another may bring about a change in the meaning of the word. They can be presented as in chart 1 below:

**Chart 1:** Consonants in TB

Manner of Articulation			Place of Articulation							
			Bilabial	Dental	Alveolar	Post-Alveolar	Palatal	Velar	Glottal	
Obstruents	Plosive	Voiceless		t̪	t			c	k	
		Aspirated		t̪ʰ	tʰ			cʰ	kʰ	
	Fricative	Voiced	b	d̪	d			ɟ	g	
		Voiceless	ɸ		s	ʃ				h
Sonorants	Nasal	Voiced	m		n				ŋ	
	Liquid	Lateral			l					
		Tap or Flap			r					
	Glide	Voiced					j	w		

### Comparison and Contrast of TB and English Phonemic Inventories

In this section, comparison and contrast of phonemic inventories of student’s L1 (TB) and TL (English) is made to bring out the area of problems and cause of errors of TB speaker students in ELT class. From the above discussion we know that TB has five monophthongs, seven diphthongs and twenty-six consonants. According to Received

Pronunciation (RP), English has twenty vowels— twelve monophthongs (*i:, ɪ, e, æ, ə:, ə, ʌ, a:, ɔ, ɔ:, u, u:*), eight diphthongs (*ɪə, eə, uə, eɪ, aɪ, ɔɪ, əu, au*) and twenty-four consonants (*p, b, t, d, k, g, ʃ, dʒ, f, v, θ, ð, s, z, ʒ, h, m, n, ŋ, l, r, j, w*).

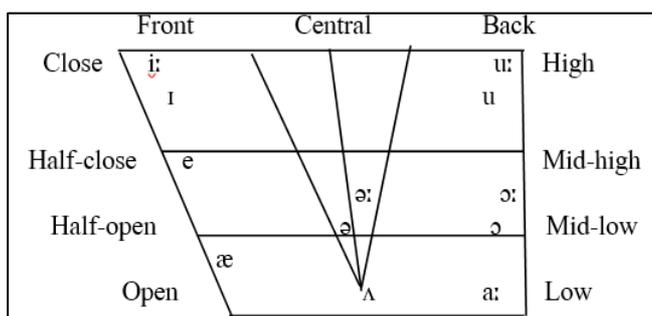
### A. Comparison and Contrast of Monophthongs

English Monophthongs are exemplified below:

**Table 4:** Monophthongs in English

Monophthongs	Description	Examples
i:	front close (high) long unrounded vowel	<i>mi:t</i> ‘meat’
ɪ	front close (high) unrounded vowel	<i>sɪt</i> ‘sit’
e	front half-close (mid-high) unrounded vowel	<i>leg</i> ‘leg’
æ	front open (low) unrounded vowel	<i>fæt</i> ‘fat’
ə:	central half- open (mid-low) long unrounded vowel	<i>gə:l</i> ‘girl’
ə	central half- open (mid-low) unrounded vowel	<i>əbaʊt</i> ‘about’
ʌ	central open (low) unrounded vowel	<i>kʌt</i> ‘cut’
a:	back open (low) long unrounded vowel	<i>fɑ:rm</i> ‘farm’
ɔ	back half- open (mid-low) rounded vowel	<i>cɔt</i> ‘cot’
ɔ:	back half- open (mid-low) long rounded vowel	<i>bɔ:l</i> ‘bawl’
u	back close (high) rounded vowel	<i>bʊk</i> ‘book’
u:	back close (high) long rounded vowel	<i>tu:</i> ‘too’

English Monophthongs are presented below in Figure 3:



**Fig 3:** Monophthongs in English

There are four front vowels *i:, ɪ, e* and *æ*; three central vowels *ə:, ə* and *ʌ*; and five back vowels *a, ɔ, ɔ:, u* and *u:* in English. There are four close (high) vowels *ɪ, i:, u* and *u:*; five mid vowels *e, ə, ə:, ɔ* and *ɔ:*; three low vowels *æ, ʌ* and *a:*. Of all the twelve monophthongs, eight (*i:, ɪ, e, ə:, ə, ʌ, a:*) are unrounded vowel and four (*ɔ, ɔ:, u* and *u:*) are rounded vowel.

Looking at the diagrams Figure 1 and figure 3, it is clear that TB and English have two high vowels in common *ɪ* and *u*. the length of the vowel is a distinctive feature in English. TB does not distinguish long vowels. Following tables show the distinctions of the vowels in TB and English:

**Table 5:** Comparison and contrast of monophthongs in terms of the part of the tongue raised

Part of the tongue	TB	English
Front	ɪ, (e), ε	ɪ, i:, e, æ
Central	---	ə:, ə, ʌ
Back	a, ɔ, u	ɔ, ɔ:, u, u:

**Table 6:** Comparison and contrast of monophthongs in terms of height to which tongue is raised

Height	TB	English
Close (high)	ɪ, u	ɪ, i:, u, u:
Half-close (Mid-high)	(e, o)	e
Half- open (Mid-low)	ε, ɔ	ə:, ə, ɔ, ɔ:
Open (Low)	a	æ, ʌ, a:

**Table 7:** Comparison and contrast of monophthongs in terms of position of lips

Position of lips	TB	English
unrounded	ɪ, (e), ε, a	ɪ, i:, e, æ, ə:, ə, ʌ, a:
rounded	ɔ, (o), u	ɔ, ɔ:, u, u:

### B. Comparison and Contrast of Diphthongs

Of all the eight diphthongs in English, three are centring (glide towards the central vowel *ə*) and six are closing (glide towards the front close vowel *ɪ* or back close vowel *u*). Diphthongs in English are exemplified in table 8:

**Table 8:** Diphthongs in English

Diphthongs	Description	Examples	
Glide towards ə	ɪə	glide from front close (high) vowel <i>ɪ</i> towards central half-open (mid-low) vowel <i>ə</i>	<i>niə</i> ‘near’
	eə	glide from front half-close (mid-high) vowel <i>e</i> towards central half-open (mid-low) vowel <i>ə</i>	<i>keə</i> ‘care’
	uə	glide from back close (high) vowel <i>u</i> towards central half-open (mid-low) vowel <i>ə</i>	<i>puə</i> ‘poor’
Glide towards ɪ	eɪ	glide from front half-close (mid-high) vowel <i>e</i> towards front close (high) vowel <i>ɪ</i>	<i>seɪ</i> ‘say’
	aɪ	glide from back open (low) vowel <i>a:</i> towards front close (high) vowel <i>ɪ</i>	<i>maɪ</i> ‘my’
	ɔɪ	glide from back half-open (mid-low) vowel <i>ɔ</i> towards front close (high) vowel <i>ɪ</i>	<i>tɔɪ</i> ‘toy’
Glide towards u	əu	glide from central half-open (mid-low) vowel <i>ə</i> towards back close (high) vowel <i>u</i>	<i>gəu</i> ‘go’
	au	glide from back open (low) vowel <i>a:</i> towards back close (high) vowel <i>u</i>	<i>naʊ</i> ‘now’

The glides of English diphthongs can be shown as follows:

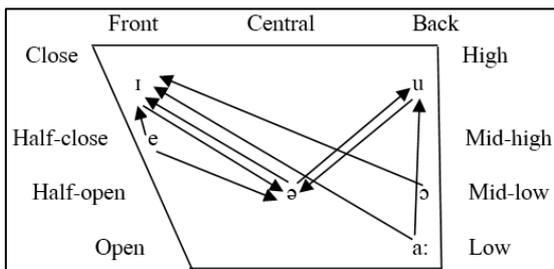


Fig 4: Glides of English Diphthongs

TB and English have three diphthongs in common *ei*, *ai* and *au*. Following table show the distinctions of the diphthongs in TB and English:

Table 9: Comparison and contrast of diphthongs

Glides	TB	English
Glide towards ə	---	ɪə, eə, uə
Glide towards ɪ	eɪ, aɪ, oɪ, uɪ	eɪ, aɪ, oɪ,
Glide towards u	ou, au, eu	əu, au

**C. Comparison and Contrast of Consonants**

English consonants are exemplified below:

Table 10: Consonants in English

Consonant	Description	Examples
p	voiceless bilabial plosive	<i>pm</i> 'pin'
b	voiced bilabial plosive	<i>bm</i> 'bin'
t	voiceless alveolar plosive	<i>tm</i> 'tin'
d	voiced alveolar plosive	<i>dm</i> 'din'
k	voiceless velar plosive	<i>km</i> 'kin'
g	voiced velar plosive	<i>gm</i> 'gun'
tʃ	voiceless postalveolar affricate	<i>tʃm</i> 'chin'
dʒ	voiced postalveolar affricate	<i>dʒm</i> 'gin'
f	voiceless labiodental fricative	<i>fæt</i> 'fat'
v	voiced labiodental fricative	<i>væt</i> 'vat'
θ	voiceless dental fricative	<i>θm</i> 'thin'
ð	voiced dental fricative	<i>ðæt</i> 'that'
s	voiceless alveolar fricative	<i>sm</i> 'sin'
z	voiced alveolar fricative	<i>zu:</i> 'zoo'
ʃ	voiceless postalveolar fricative	<i>ʃu:</i> 'shoe'
ʒ	voiced postalveolar fricative	<i>lezə</i> 'leisure'
h	voiceless glottal fricative	<i>hæt</i> 'hat'
m	voiced bilabial nasal	<i>mæn</i> 'man'
n	voiced alveolar nasal	<i>nit</i> 'knit'
ŋ	voiced velar nasal	<i>riŋ</i> 'ring'
l	voiced alveolar lateral	<i>liv</i> 'live'
r	voiced alveolar tap or flap	<i>ræt</i> 'rat'
j	voiced palatal approximant	<i>jes</i> 'yes'
w	voiced labiovelar approximant	<i>wm</i> 'win'

These consonants can be presented as in chart 2 below:

Chart 2: Consonants in English

Manner of Articulation			Place of Articulation							
			Bilabial	Labiodental	Dental	Alveolar	Post-Alveolar	Palatal	Velar	Glottal
Obstruents	Plosive	Voiceless	p			t			k	
		Voiced	b			d			g	
	Affricate	Voiceless					tʃ			
		Voiced					dʒ			
	Fricative	Voiceless		f	θ	s	ʃ			h
		Voiced		v	ð	z	ʒ			
Sonorants	Nasal	Voiced	m			n			ŋ	
	Liquid	Lateral				l				
		Tap or Flap	Voiced				r			
	Glide	Voiced	w					j	(w)	

TB and English has seventeen common consonants: *p, b, t, d, k, g, s, z, f, h, m, n, ŋ, l, r, j* and *w*.

Following table shows the distinctions of the consonants in TB and English:

**Table 11:** Compare and Contrast of Consonants

	TB	English
Obstruents	p, b, t, t <sup>h</sup> , d, t, t <sup>h</sup> , d, c, c <sup>h</sup> , j, k, k <sup>h</sup> , q, φ, β, s, z, ʃ, h	p, b, t, d, k, q, tʃ, dʒ, f, v, θ, ð, s, z, ʃ, ʒ, h
Sonorants	m, n, ŋ, l, r, j, w	m, n, ŋ, l, r, j, w
Voiceless	p, t, t <sup>h</sup> , t, t <sup>h</sup> , c, c <sup>h</sup> , k, k <sup>h</sup> , φ, s, ʃ, h	p, t, k, tʃ, f, θ, s, ʃ, h
Voiced	b, d, d, j, q, β, z, m, n, ŋ, l, r, j, w	b, d, q, dʒ, v, ð, z, ʒ, m, n, ŋ, l, r, j, w
Plosive	p, b, t, t <sup>h</sup> , d, t, t <sup>h</sup> , d, c, c <sup>h</sup> , j, k, k <sup>h</sup> , q	p, b, t, d, k, q
Affricate	---	tʃ, dʒ
Fricative	φ, β, s, z, ʃ, h	f, v, θ, ð, s, z, ʃ, ʒ, h
Bilabial	p, b, φ, β	p, b
Labiodental	---	f, v
Dental	t, t <sup>h</sup> , d	θ, ð
Alveolar	t, t <sup>h</sup> , d, s, z, n, l, r	t, d, s, z, n, l, r
Post-Alveolar	ʃ	tʃ, dʒ, ʃ, ʒ
Palatal	c, c <sup>h</sup> , j, j	j
Velar	ŋ, w	ŋ, w
Glottal	h	h

### Discussion and Suggestion

It is observed that TB does not distinguish between long vowel and short vowel while English makes a distinction between long and short vowels. In ELT class in Tripura, learners whose L1 is TB are often confused between long and short vowels as there is no use of phonemic vowel length in their L1 which leads their perception to long vowel as short vowel. They tend to shorten the long vowel of their TL. So they pronounce 'seek' as *sik* instead of *si:k* which is often confused with 'sick'. Similar instances are plenty: heart is pronounced as *hat* instead of *ha:t*, call as *kɔl* instead of *kɔ:l*, boot as *but* instead of *bu:t*. There is no central vowel in TB. The central vowels of TL are assumed as the closest front or back vowels by the learners according to the convenience of their L1 cognition. So they pronounce hut as *hat* instead of *hʌt*, about as *ɛbaut* instead of *əbaut*, learn as *larn* instead of *lɜ:n*. Students often make mistake to pronounce diphthongs lengthened monophthongs when they speak English, such as: *gəu* → *go*: 'go', *puə* → *po:r* 'poor', *pet* → *pe*: 'pay', *det* → *de*:. It is to be noted that in these words diphthongs are replaced by o and e which are not in the underlying list of TB vowels. The story hidden here is that these are non-native words hence the quality of the vowel should be maximally retained. However, TB continues to reduce the diphthong into a monophthong, though lengthened for fulfilling the requirement of word minimality condition of a prosodic unit called foot.

Learners are unable to get the point of postalveolar affricates (*tʃ, dʒ*), labiodental and dental fricatives (*f, v, θ, ð*) and postalveolar voiced fricative (*ʒ*) of their TL as there is no such phoneme in their L1. They tend to put the closest existing phoneme of their L1 in place them:

*tʃ* → *c* in *cem* for *tʃem* 'chain', *tiar* for *ti:tʃə* 'teacher' and *dic* for *di:tʃ* 'ditch';

*dʒ* → *j* in *jaɪ* for *dʒaɪdʒ* 'judge', *baɪt* for *baɪdʒɪt* 'budget' and *kaɪɪ* for *kaɪɪdʒ* 'courage';

*f* → *φ* in *φul* for *fu:l* 'fool', *ɔφɪs* for *ɔfɪs* 'office' and *lɪφ* for *li:f* 'leaf';

*v* → *β* in *βaksm* for *vaksɪn* 'vaccine', *kaβar* for *kʌvə* 'cover' and *laβ* for *lʌv* 'love';

*θ* → *t<sup>h</sup>* in *t<sup>h</sup>ɪŋ* for *θɪŋ* 'thing', *na:t<sup>h</sup>ɪŋ* for *nʌθɪŋ* 'nothing' and *tu:t<sup>h</sup>* for *tuθ* 'tooth';

*ð* → *d* in *dɛt* for *ðæt* 'that', *ma:dɪar* for *mʌðə* 'mother' and *lo:d* for *ləʊð* 'loathe';

*ʒ* → *z* in *βɪzən* for *vɪʒən* 'vision', *re:zər* for *reɪʒə* 'razor' and *kɔlɪz* for *kɔlɪ:ʒ* 'collage'.

It is to be noted that the phonemes which are restricted to particular position in TB are allowed to occur in all the positions uniformly in non-native words. Aspiration is a distinctive feature in TB such as *t* and *t<sup>h</sup>* belong to two different phonemes in TB while aspiration in English is for allophonic variation such as *t* and *t<sup>h</sup>* belong to the same phoneme. These differences are not clear to the students of Tripura. Going by the orthography students from Tripura often tend to pronounce *r* before a consonant and the end of a word which is contrary to RP. These are the reasons why students whose L1 is TB cannot have communicative competence in speaking their TL English in the true sense of RP.

In the prevalent pedagogy in Tripura, learning English starts in the true sense if students choose English as a subject in UG courses. Speaking from the psycholinguistic perspective, at the UG level of tertiary education learners are cognitively much advanced contrary to their language proficiency in the TL. This mismatch is handicapping the learners from expressing their shortcomings and other lacuna. In consequence, they are not found to become positive and forthcoming in their approach and attitude towards learning English. In undergraduate classes students only practice reading and writing in their TL to promote themselves as they are compelled to do so to pass the examinations. There is no emphasis in listening and speaking skills. For listening and speaking, the knowledge of pronunciation is necessary. But unfortunately, in the under graduate syllabus for English in Tripura, phonetics is introduced in the last year i.e. the third year of the English Honours course. In Tripura, English teachers in schools and colleges are not adequately trained in phonetics and phonology. Therefore, they cannot provide the students basic requirements of it for acquiring English. That is why the honours students in the last year of the degree have to go for the phonetics text books which are rarely available in the market and negotiate with the text on their own. Those text books are often found to be lacking in providing proper information in a systematic way. So when students follow these books they remain confused in understanding as well as retrieving the transcribed text. They just try to imitate the graphics of the transcription which are given in those books and somehow manage to pass the written examination.

To improve this condition of ELT in Tripura, Phonetics should be included in the syllabus at an earlier stage of the learning process. There is need for trained phoneticians to teach the students the distinctive features of the phonemes

and their proper use. The teacher-student relationship should be friendly for the process of learning English so that no student hesitates to interact in class and express their queries, ideas and inputs. Students should be allowed freedom of expression in classroom interactions so that their errors get expressed and they can learn from their mistakes with or without the help of the teacher. The environment of the classroom should be encouraging. Teacher should give extra attention to the introvert students so that they can feel comfortable and turn into forthcoming performers. There is need of language laboratory along with technicians. This is urgently needed in Tripura equipped with all logistic paraphernalia like electronic gadgets, computers, sound systems, recorders, spectrographs and necessary software to aural and oral skills of the students. The standard dictionaries such as Oxford Advance Learner's Dictionary of English are necessary for learning phonetics and English in general. The standard pronunciation text books like the Cambridge English Pronunciation Dictionary (Daniel Jones) etc. are needed to be included in the concerned syllabi. Classroom instruction should be bilingual. With audio-visual supportive aids learning can be facilitated. Students should be encouraged to listen English telecast or programmes to improve their listening skill.

### Conclusion

In ELT class in Tripura, the first challenge is indeed pronunciation. To achieve this the main hindrance is the lack of knowledge about the phonemic inventory of students L1. L2 learning is always challenged by student's L1. Phonemic systems of TB and English are varied. Now-a-days oral communication in English has become vital and inevitable globally. Present study has investigated the issues connected with improving the English pronunciation and communicative competence and confidence of the students of Tripura. The article has shown the problems of the students of Tripura while pronouncing English vowels and consonants by making phonemic inventory for TB. Phonetic symbols are not difficult to teach and learn. But the emphasis should be placed on applying the knowledge of phonetic symbols to actual pronunciation rather than learning of generalizations. English teachers should adopt positive and innovative measures to attract the attention of the students to help them enhance their English proficiency.

### References

1. Barman, Dr. Binay. "A contrastive analysis of English and Bangla phonemics" *The Dhaka University Journal of Linguistics* 2009;2(4):19-42.
2. Chatterji, Suniti Kumar. *Bengali Phonetics*. Bulletin of The School of Oriental Studies London Institution 2009.
3. Das Shyamal. *Some Aspects of the Prosodic Phonology of Tripura Bangla and Tripura Bangla English*. Doctoral dissertation. Central Institute of English and Foreign Languages, Hyderabad ROA 493 2001.
4. All for a Trochee. MS 2012.
5. Aspiration: A Dying Phenomenon in Bangla *International Journal of Applied Research*, vol 7, issue 3, part E February 2021, 271-274.
6. The Emerging Alphabet of Tripura Bangla: A Metrical Account". In M. Maniruzzaman *et al.* (eds) *The EDRC Journal of Learning and Teaching* 2016;1(2):12-13.
7. Language Change, Media and Standardization" In Ali R. Fathi, *et al.* (eds) *Aligarh Journal of Linguistics* 2018;7(2):1-28.
8. Sarma Madan M, Debashis Mohapatra. *How to Teach English a Resource Book for Teachers and Teacher Educators*. Bhabani Print and Publications, Guwahati 2009.
9. Trask RL. *A Dictionary of Phonetics and Phonology*. Routledge. New York 1996.