Chapter 3

SPEECH ANALYSIS: SEGMENTAL FEATURES
3.0 Overview

This chapter deals with speech analysis based on the recording in terms of Phonemic Inventory (see Appendix I)

a. Vowels

b. Consonants and Deviation from R.P in terms of the segmental features.

3.1 Speech Analysis

As mentioned in the earlier Chapter – 2, speech samples consist of

I. Word list
   II. Reading a passage
   III. Free speech.

The first 44 words in the word list had a phoneme as the test item. Thus it was ascertained how R.P vowels and consonants were realized in their speech. (See 2.4 Data Compilation for more details).

3.2 Phonemic Inventory

Based on the majority pattern (See Table No. 3, 4) the following phonemic inventory was set up for Telugu Speakers of English. Frequency of occurrence was taken as the basis to arrive at the phonemic unit and allophone as used by the speaker. If there is a consistent replacement of phoneme, the replaced phoneme was taken as part of the phonemic inventory. Deviations from R.P vowels and consonants were examined based on the speech samples. It was also studied if there are any
considerable differences in the speech between the speakers of English Medium Background in School (EMBS) and speakers of Telugu Medium Background in School (TMBS).

3.3 Vowels and Consonants

The following Table No. 3, 4 indicate Vowel Inventory and Consonant Inventory of the speakers respectively. This section deals with the phonemes in the inventory of the speakers.
Table No. 3 Phonemic Inventory - Vowels

| Speaker | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | MP* |
| i [i]   | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i |
| i:      | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i | i |
| e:      | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e |
| a:      | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a |
| o:      | o | o | o | o | o | o | o | o | o | o | o | o | o | o | o | o | o | o | o | o | o |
| u [u]   | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u |
| u:      | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u | u |
| e:      | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e |
| e:      | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e | e |
| a:      | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a | a |
| ei:     | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei | ei |
| ai:     | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai | ai |
| eu:     | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu | eu |
| ioe:    | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe | ioe |
| eoe:    | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe | eoe |
| eue:    | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue | eue |

* Majority Pattern
| Spkr. No.→ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | MP* |
| b | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t |
| d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d |
| k | k | k | k | k | k | k | k | k | k | k | k | k | k | k | k | k | k | k | k | k |
| g | g | g | g | g | g | g | g | g | g | g | g | g | g | g | g | g | g | g | g | g |
| tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ |
| m | m | m | m | m | m | m | m | m | m | m | m | m | m | m | m | m | m | m | m | m |
| n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n | n |
| ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ | ŋ |
| l | l | l | l | l | l | l | l | l | l | l | l | l | l | l | l | l | l | l | l | l |
| f | f | f | f | f | f | f | f | f | f | f | f | f | f | f | f | f | f | f | f | f |
| v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v |
| 0[th] | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t | t |
| δ[d] | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d | d |
| s | s | s | s | s | s | s | s | s | s | s | s | s | s | s | s | s | s | s | s | s |
| z | z | z | z | z | z | z | z | z | z | z | z | z | z | z | z | z | z | z | z | z |
| S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| h | h | h | h | h | h | h | h | h | h | h | h | h | h | h | h | h | h | h | h | h |
| r | r | r | r | r | r | r | r | r | r | r | r | r | r | r | r | r | r | r | r | r |
| j | j | j | j | j | j | j | j | j | j | j | j | j | j | j | j | j | j | j | j | j |
| w | w | w | w | w | w | w | w | w | w | w | w | w | w | w | w | w | w | w | w | w |

Table No. 4 Phonemic Inventory - Consonants

* MP= Majority Pattern
As the table No. 3 about the Vowel Inventory of the speakers indicates, all the speakers did not have any problems with the front pure vowels /ɪ,ɪ:, ɨ,æ/.

All the speakers had /ɑː,ɒ,ʌ,ʊ,ə,ʌ,ai,ɔi,au,ıə/ as part of their phonemic inventory.

Except one all the speakers had /ə:/ in their vowel inventory.

Conformity to the R.P. pattern was the highest in respect of 15 vowels out of the twenty. They are /i,i:,e,æ,ə,ɑː,ɒ,ʌ,ʊ,ə,ɛ,ɛ:,ʌ,ai,ɔi,au,ıə/.

Pure vowel /ɔː:/ and diphthongs /ei/, /əu/, /eə/ and /uə/ were not part of the majority pattern of the vowel inventory.

The pure vowel most of them lacked was /ɔː/. Only 40% of the total speakers had the vowel in their inventory.

35% of the speakers had /ei/ in the phonemic inventory.

/əu/ was used only by 15% of the speakers whereas the rest of the speakers had monophthongized the diphthong as /ɔː:/.

/eə/ was realized as a phoneme only in the speech of 10% of the speakers. This vowel had the lowest conformity to R.P. pattern.

Only 25% of the speakers had /uə/ in their phonemic inventory.
As the table of Consonant inventory indicates, most of the speakers had no problems with the plosives, affricates, nasals, lateral and semi- vowels (except one speaker).

In the case of R.P. voiced labio-dental fricative /v/, many of them used /u/ which is a voiced labio-dental frictionless continuant.

All the speakers invariably replaced /θ, δ/ with the dental stops [t, d]. This could be because of their lack of dental fricatives in Telugu. Responses to these consonants not only indicate the influence of Telugu, but also a pan-Indian feature of replacing /θ, δ/ with the dental stops.

It is interesting to note that /θ/ was replaced by a dental plosive with aspiration as [tʰ] by 65% of the speakers. This is also because of the spelling pronunciation factor.

In the case of a voiced palato-alveolar fricative /ʒ/, 85% of the speakers had conformity to R.P. pattern, whereas the rest of speakers did not have the consonant in their inventory.

Retroflexion to a certain degree was found with the alveolar plosives /t, d/ in the speech of some speakers. But it was not indicated unless it was found prominently.

Quality of palato-alveolar affricates /tʃ/ and /dʒ/ were realized as Telugu equivalent alveolo-palatal sounds.
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Speech Analysis: Segmental Features

As mentioned in the earlier chapter, frequency of occurrence was taken as the basis for arriving at the basic phonemic unit and the allophonic variation of the phoneme of the speaker.

It is interesting to study the other features like aspiration; plural and third person singular verb forms; past tense and participle -ed forms; dropping of /r/, which are related to the consonantal phonemes. The features above in the speech of each speaker also will be discussed in this section.

Having looked at the majority pattern of the vowel and consonantal inventories of all the speakers, it is interesting to study them by speaker wise in detail.

3.3.1 Speaker No. 1

a. Vowels

Speaker No. 1 (S1) comes from EMBS located in Hyderabad (Urban). Her confidence level was high and was clear about future plans.

S1 had twenty vowels as part of the vowel inventory. Out of them one vowel was deviant form R.P in terms of articulation. Instead of the glide or diphthong /eI/, the speaker monophthongized it as [e:]. But [eI] was present in the speech as an allophonic variation of the phoneme /e:/ in her speech.
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b. Consonants

S1 had 24 consonantal phonemes in the phonemic inventory. Among them, [t, d] were deviant forms for R.P /θ, ð/. Aspiration was in the word initial /k/ in [khi:]. Retroflexion of /t, d/ as [t̪, d̪] was also audible in words like ‘two’, ‘dot’ etc. [v] was present in the speech as an allophonic variation of /v/. Plural marker and simple present tense marker – s was found to be deviated from R.P in seven words of the speech. Past tense marker -ed was found to be in accordance with R.P forms. /r/ was dropped at the word-final positions in words such as ‘computers, computer, future, literature, your’ etc. in the speech as in R.P.

3.3.2 Speaker No. 2

a. Vowels

S2 hails from EMBS located in Kamareddy (rural). S2 had 19 vowels out of which 15 vowels had conformity to R.P pattern. The deviant vowels were [i, u, e:, o:] for [ɪ, u, ei, eu] respectively. The diphthong [ee] did not figure in the phonemic inventory of the speaker.

b. Consonants

S2 had 23 consonants in the consonant inventory. Among them, 20 consonants had conformity to R.P pattern. The fricatives /v, θ, ð/ were realized as [v],[t̪],[d̪] respectively in his speech. A degree of retroflexion
was present in /t, d/ in the speech in words such as 'computer, computers, two, B.Tech, ideas, design' etc. [t, d] were present in the speech as allophonic variations of /t, d/. Past tense marker -ed and third person singular verb form, plural marker -s forms were not maintained in the speech. Inaudible release of word -final plosive was present with the word 'round' in the speech. /r/ was dropped at the word final position in the word list. But it was not maintained in the second and third sections of the text i.e., reading a passage and free speech.

3.3.3 Speaker No.3

a. Vowels

S3 comes from EMBS, which is located in Hyderabad. The speaker was confident and was clear about the future plans.

S3 had 18 vowels, in the phonemic inventory. /æ, / were not present in the speech. Among them, [i, u] were the deviant forms from R.P. [I, U].

b. Consonants

S3 had 24 consonants in the phonemic inventory. Among them, two were deviant from R.P pattern. Fricatives /θ, ɗ/ were used as plosives [t, d] respectively. Aspirated dental plosive [ts] was present in the speech
of S3 as an allophonic variation of the dental plosive $[t]$. Aspiration of
/p, t, k/ in the initial position of a stressed syllable was not present in the
speech. A degree of retroflexion was present in the speech. $[t, d]$ were
present in the speech as allophonic variations of /t, d/. S3 was the only
speaker who had 10 words to his credit in which he had inaudibly released
the word-final plosives. Past tense marker -ed forms as /t, d, rd/ and
plural marker, present tense verb forms -s as /s, z, rz/ were not
maintained in the speech. The feature of dropping of /r/in the pre-
consonantal and word – final positions was present in the speech of S3.
Weak forms were maintained in the speech.

3.3.4 Speaker No. 4

a. Vowels

S4 comes from EMBS, which is located in Hyderabad. The speaker
was confident and was clear about the future plans.

S4 had 20 vowels in the vowel inventory. Among them, 17 had
conformity to R.P. pattern. /ee/ did not exist in his speech as a phoneme.
[e:] was used instead of /ee/. The other two deviant forms were [i, u]
instead of the R.P. [i, u].
b. Consonants

S4 had 24 consonants in the phonemic inventory. Among them, two were deviant from R.P pattern. The fricatives /θ, ð/ were dentalised and were realized as plosives /tʰ, d/ respectively. But S4 is one of the few speakers who had the fricatives /θ, ð/ as allophonic variations of the dental plosives /tʰ/ and /d/ respectively. He was also one of the six speakers who had the fricative /v/ as a phoneme in the speech.

Aspiration of /k/ was present in the speech in the words ‘key’ and ‘clear’. Retroflexion of /t, d/ was also present in the speech. Word final plosives were inaudibly released in his speech. Past and participle verb –ed was not maintained in the speech, whereas the plural marker –s forms were maintained in the speech. /r/ was dropped at the pre-consonantal and word-final positions in words like ‘computers’, ‘course’, ‘parks’, ‘future’, ‘engineer’, ‘water’ etc. Weak forms for words like ‘am’, and’, ‘a’, ‘would’ were used wherever necessary.

3.3.5 Speaker No. 5

a. Vowels

S5 comes from EMBS, which is located in Hyderabad. The speaker was clear about the future plans and was confident.
S5 had 19 vowels as part of the phonemic inventory. Among them 16 vowels had conformity to R.P. pattern. [əu] and [eə] did not figure in the phonemic inventory. They were replaced by [oː] and [eː] respectively. The other two deviant vowels were [i, u] for the R.P. [ɪ, u].

b. Consonants

S5 had 24 consonants in the phonemic inventory. Among them, two consonants were deviant from R.P pattern. The dental fricatives /θ, ɔ/ were realized as the dental plosives [tʰ, ɗ]. Interestingly, he was one of the two speakers among twenty, who had /θ/ as an allophonic variation of [tʰ] in the speech. The voiceless dental plosive [t] was aspirated like the other speakers. He was also one of the few EMBS students who had the fricative /v/ as part of the phonemic inventory. Aspiration of /k/ was present in the speech in the word ‘key’. Retroflexion of /t/ was also found in words like ‘two’, ‘take’. Word-final plosives were inaudibly released in some parts of his speech. Past and participle verb forms of -s were not maintained in the speech whereas the plural marker -s as /s/ and /z/ was maintained in parts of the speech at appropriate places. /r/ was dropped at the word-final and pre-consonantal positions like ‘measure’, ‘water’, ‘cure’; ‘research’, ‘course’ etc. Weak forms for ‘a’, ‘and’, ‘am’ etc. were used in the speech.
3.3.6 Speaker No. 6

a. Vowels

S6 hails from EMBS, which is located in Hyderabad. The speaker was not confident and was not clear about his future plans.

S6 had 17 vowels in the phonemic inventory. Among them 14 had conformity to R.P pattern. The diphthong \[əu\] and \[eɪ\] were monophthongized as \[o:]\ and \[e:\] respectively. \[əə\] and \[uə\] did not figure in his phonemic inventory. Instead, \[əːr\] and \[uːr\] were used respectively. \[ɪ\] and \[u\] were substituted with \[i\] and \[u\] in the vowel inventory respectively.

b. Consonants

S6 had 24 consonants in the consonant inventory. Among them, 21 had conformity to R.P pattern. The deviant forms were dental fricatives /θ, δ/ and voiced labio- dental fricative /v/. /θ, δ/ were realized as plosives /tʰ/ and /d/ respectively. The labio-dental fricative /v/ was deviated as /v/ which is again a pan-Indian feature. Aspiration of /k/ in the initial position of stressed syllable was present in words ‘key’, ‘mechanical’ etc. Retroflexion of /t, d/ and /l/ was found in the speech in words like ‘two’, ‘to’; ‘do’ (3), ‘down’; ‘possible’ respectively. He was the only speaker among twenty who had used a retroflex [l] as an allophonic
variation of /l/. An instance of inaudible release of word-final plosive was also found in the speech. Forms of past tense marker -ed was not found. The plural marker –s was maintained as /s/, /z/ in some of the words. /r/ was dropped in pre-consonantal and word-final positions in words ‘computers’, ‘university’, ‘water’, ‘measure’, future’ etc. Weak forms for some words like ‘and’, ‘a’, ‘the’, ‘will’ etc were used in the speech.

3.3.7 Speaker No. 7

a. Vowels

S7 comes from EMBS, which is located in Kamareddy (Rural). She sounded confident and was clear about future plans.

S7 had 17 vowels in the vowel inventory. Among them 13 had conformity to R.P. pattern. /ɔ:/ and /ei, eu, ee and œ/ did not figure in her phonemic inventory. The other two vowels /i, u/ were the deviant forms for /i, u/ respectively. She had monophthongized the diphthongs /ei, eu/ and /ee, œ/ as [e:, o:] and [eː, uː] respectively.

b. Consonants

S7 had 24 consonants as part of the consonant inventory. Among them, the dental fricatives /θ, ð/ were realized as [tʰ] and [d] respectively. The speaker had [v] as an allophonic variation of the labio-
dental fricative /v/. Aspiration of /k/ was present in the word ‘key’. Inaudible release of the word final plosive was present in some words like ‘yeast’ etc. Past tense marker –ed forms, plural marker –s forms were not present in the speech. The past tense marker –ed was realized as /ed/ in words ‘erected’, ‘interested’ (3) where it was supposed to be /ɪd/. In words like ‘lines’, ‘computers’ (4), ‘houses’, ‘bills’, ‘doors’, ‘rooms’ etc, the plural marker –s was realized as /s/ instead of the R.P. /z/ or /ɪz/. Responses to these words throw light on the speaker’s unawareness of the different realizations of these inflexional suffixes. /r/ was dropped at the word final and pre-consonantal positions in few words like ‘water’ and ‘clear’; but it was used in many other words like ‘future’, ‘computers’ etc. where R.P. /r/ does not exist.

3.3.8 Speaker No. 8

a. Vowels

S8 comes from EMBS, which is located in Kamareddy. His family's business background seemed to have made him without a worry about his future plans. This was revealed in the free speech.

S8 had 18 vowels in the vowel inventory. Among them, 15 vowels had conformity to R.P pattern. /o:/ and the diphthong /əu/, /uə/ did not figure in his speech. He had used [ɔ:] and [uːr] for the diphthongs /əu/
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Speech Analysis: Segmental Features

3.3.9 Speaker No.9

a. Vowels

S9 comes from EMBS, which is located in Hyderabad.

His vowel inventory consists of 18 vowels. Among them, 3 of the vowels did not have conformity to R.P pattern. He used a monophthong

and / uə/ respectively. The other two deviant vowels were /i/ and / u/ which were realized as /i, u/ in the speech.

b. Consonants

S8 had 24 consonants in his phonemic inventory. Among them, three were the deviant consonants from R.P. They were the fricatives /v, θ, ð/ which were realized as [v, tʰ, ɾ] respectively.

Aspirated /p, t, k/ were totally absent in the speech of S8. Weak forms of structural words were not present in most of the speech except words like 'am', 'for'. Retroflexion of /t, d/ was present in words like 'computers', 'to', 'lights'; 'do' etc. Different realizations of past and participle verb forms /t, d, rd/ and plural marker -s were not present in the speech.

Plural marker -s as /z/ in words 'liner', 'bills' etc was deviated as /s/. The feature of dropping /r/ was non-existent in many words. /r/ was dropped in the pre-consonantal positions of a few words in the word list.
[ɔː] for /œə/ and /ɪ, ɜ/ for the R.P /ɪ, ɜ/. The diphthongs /œə, uə/ did not figure in the phonemic inventory. Instead, [eːr] and /uːr/ were used indicating the effect of spelling pronunciation.

b. Consonants

S9 had 24 consonants in his consonant inventory. Among them, three consonants were deviant from R.P pattern. The fricatives /v/, /θ/ and /ð/ were rendered as [v], [θʰ] and [ð] respectively. Retroflexion of /t, d/ was present in the speech. Feature of aspiration was completely absent in the speech. No instance of inaudible release of the word final plosives was found in the speech. The occurrence of plurals and third person verb forms of /s/ as /iz/ and realization of /s/ as /z/ were completely non-existent. His speech samples failed to demonstrate the past and participle forms –ed as /ɪd/ and /t/. /r/ was dropped at the pre-consonantal and word final positions in some words of the speech. Weak forms of structural words were used for a few in the speech samples of S9.

3.3.10 Speaker No. 10

a. Vowels

S10 comes from EMBS, which is located in Hyderabad. He sounded confident and was clear about the future plans.
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S10 had 17 vowels in the phonemic inventory. Among them, 15 had conformity to R.P pattern. \([e:, o:]\) were used as the phonemes for \([\text{ei}]\) and \([\omega u]\) in the speech. But the diphthongs \([\text{ei} \text{and } \omega u]\) were present in the speech as allophonic variations of the monophthongs. \(/e:/\) and \(/o:/\) were considered to be the phonemic units of the speaker. The vowel \(/o:/\) did not figure in his phonemic inventory. The diphthongs \(/\text{ei}/\) and \(/\text{u}:r/\) were realized as \(/\text{eir}/\) and \(/\text{u}:r/\) respectively indicating the possible effect of spelling pronunciation which was a pan-Indian feature.

b. Consonants

S10 had 24 consonants in the phonemic inventory. Among them, 21 conformed to R.P. whereas three fricatives among them i.e., \(/v/, /\theta/, /\delta/\) were rendered as \(/v/, /\text{t}^h/, /\text{d}/\) respectively. Aspiration was completely non-existent in the speech of S10. Retroflexion of \(/t, d/\) was not found in the speech unlike the other speakers. Inaudible release of the word final plosives was found in the word list. Past and participle verb forms \(-ed\) as \(/\text{id}/\) were not found in the speech. \(-ed\) in the words ‘erected’ and ‘completed’ was realized as \(/\text{ed}/\) instead of \(/\text{id}/\) indicating the speaker’s unawareness to use the form. Voicing of plural marker \(-s\) as \(/z/\) was completely non-existent in the speech samples of S10. \(/r/\) was dropped in
the word-final and pre-consonantal positions in the speech. Weak forms of structural words were used in the speech ‘the’, ‘and’, ‘am’, ‘at’ etc.

3.3.11 Speaker No. 11

a. Vowels

S11 hails from TMBS, which is located in a village in Nalgonda District of Andhra Pradesh. He comes from one of the ZP (Zilla Parishad, is a kind of district administrative office) government schools in the district. He was a first generation learner in the family.

S11 had 17 vowels in the phonemic inventory. Among them 13 conformed to R.P pattern. The diphthongs /eɪ/ and /əu/ were realized as /e:/ and /o:/ respectively in the speech. /i/ and /u/ were used as phonemes instead of the R.P /ɪ/ and /ʊ/. The diphthongs /æə/ and /ɜə/ were realized as /eər/ and /ər/ indicating the spelling pronunciation.

/ɔ:/ did not figure in his speech. It was realized as /ɑ:/; /ɔː/ and /ʊ/ in the words ‘all’, ‘doors’ and ‘on, off’ indicating the influence of mother tongue in English and spelling pronunciation.

b. Consonants

S11 had 24 consonants among which two had not conformed to R.P pattern. The dental fricatives /θ, ð/ were rendered as dental plosives [t]
and [ɕ] respectively. Retroflexion of /t, d/ was present in many words although they were allophonic variation of /t, d/ for the speaker. Aspiration of /p, t, k/ was completely non-existent in the speech. Past and participle verb forms –ed as /t/ or /ɪd/ was not present in the speech. Voicing of /s/ in plurals and present verb forms was completely missing in the speech samples of S11. /r/ was dropped in a few words in the word list. But it was completely neglected in the other sections of his speech. Weak forms of structural words were not used for most of the words. Most of his speech did not conform to R.P pattern with reference to the above consonantal feature.

3.3.12 Speaker No. 12

a. Vowels

S12 comes from TMBS, which is located in Kamareddy. She did not sound confident in the free speech. She sounded as though she was not clear about the future plans.

S12 had 17 vowels in the phonemic inventory. Among them, 13 vowels had conformity to R.P pattern. /æ/ was monophthongized as /ɔː/. /eə, uə/ were realized as /ɛə, uə/ respectively. It is interesting to note that the speaker did not monophthongize /eɪ/ although [ɛː] was present in the speech as its allophonic variation. /ɔː/ did not figure in the
speech. It was deviated as two different phonemes as /ɔː/ and /d/ in words ‘doors’ and ‘call’ respectively. /i, u/ were used for R.P vowels /ɪ, ʊ/respectively.

b. Consonants

S12 had 24 consonants in the consonant inventory. Among them, three had not conformed to R.P pattern. The dental fricatives /θ, ʌ/ were rendered as [tʰ, ɖ] respectively reflecting the pan-Indian feature. Voiced labio-dental fricative /v/ was realized as [u] which is a fricative continuant. S12 had /v/ as an allophonic variation of /u/ in the speech sample. Aspiration of /p, t, k/ was not present in the speech of S12 at all. Retroflexion of /t/ was present whereas it was surprising to note that [d] was absent in the speech samples of S12. Inaudible release of word final plosives was completely non-existent in the speech. Devoicing of /d/ and realization of /ɪd/ in past and participle verb forms –ed was absent in the speech. Plurals and present verb forms of –s as /z/ and /ɪz/ was also completely absent in the speech. Weak forms were not maintained in the speech. /r/ was dropped in the word-final position in the word list but not in other sections of speech samples.
3.3.13 Speaker No. 13

a. Vowels

S13 comes from TMBS, which is located in Hyderabad. He sounded confident but mother tongue was actively present in the speech. He also sounded conscious of his own speech, which could have been the reason for his unusual deviations from R.P phonemes.

S13 had 18 vowels in the vowel inventory. Among them, 14 had conformity to R.P pattern. Among them, 14 had conformity to R.P pattern. The deviant phonemes were /i, u, e:, o:/ for the R.P vowels /ɪ, ʌ, ɛɪ, əʊ/ respectively. He was one of the two TMBS speakers, who had /ɔ:/ in the vowel inventory. /æ/ and /æɛ/ were realized as /eɪr/ and /uː:/ respectively. /æɛ/ as /uː:/ in the word 'cure' was a peculiar deviation in the speech of S13 whereas others deviated it with an /r/ as /kjuːr/. It is interesting to note that /eɪr/ and /æʊ/ were present in the speech of S13 as allophonic deviation of /ɛ:/ and /ɔ:/ respectively.

b. Consonants

S13's consonant inventory consists of 24 consonants. Among them, 21 conformed to R.P pattern. The deviant consonant vowels were labio-dental fricative /v/ and dental fricatives /θ, ə/. These were rendered as labio-dental frictionless continuant [v] and dental fricatives [t̪ʰ] and [d̪]
respectively. Deviation to these consonants reflects pan-Indian feature. These fricatives were not part of Telugu. S13 was one of the few TMBS speakers who maintained aspiration of /p, t, k/ and inaudible release of word-final plosives. Retroflexion of /t, d/ was present in his speech although they were the allophonic variations of /t, d/. The feature of dropping /r/ was also existent in the word list and reading passage. His speech contained weak forms in some sections of the speech sample. Devoicing of /d/ in the past and participle verb forms –ed was not present. Different realizations of present verb and plural forms of –s as /z/, /iz/ was not maintained in the speech.

3.3.14 Speaker No. 14

a. Vowels

S14 comes from TMBS, which is located in a town Vemulawada. He sounded as though he was not clear about the future plans.

S14 had 16 vowels in the phonemic inventory. Among them, four were deviant forms from R.P vowels. [i,u] were used for /I,u/. The diphthongs /eI and au/ were substituted with /e:/ and /o:/ respectively. /o:/ and /e:/ did not figure in the phonemic inventory. He was the only speaker among all the twenty, who did not have /e:/ in the phonemic
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inventory. The vowel was realized as /ʌr/ and /ər/ in the speech. /eə/ and /uə/ were realized as /eɪr/ and /uːr/ respectively. /ɔː/ had three deviant forms as /ɑːr/, /ɔːr/ and /ɑː/ in the words ‘call’, ‘doors’ and ‘all’ respectively representing the effect of active mother tongue in his English.

b. Consonants

S14’s consonant inventory consists of 23 consonants. Voiced palato-alveolar fricative /ʒ/ was not part of his phonemic inventory. It was deviated as /z/. Among them 23 consonants, these consonants had no conformity to R.P pattern. The fricatives /θ, ʤ/ and /v/ were deviated as /tʰ, ʤ/ and [v] respectively. Retroflexion of /t, ʤ/ was present in the speech. Aspiration of /k/ was present in the word-list whereas [pʰ, tʰ] were not present in the speech sample of S14 at all. Inaudible release of word final plosives was also non-existent in his speech. His speech failed to demonstrate devoicing of /d/ in the case of past and participle verb forms. The occurrence of /s/ as /IZ/ and /Z/ in the case of plural marker –s was completely not found in the speech of S14. /Z/ was realized as /dʒ/ in words like ‘zip’, ‘examination’ in his speech. The speaker did not use weak forms of the many structural words though he had used for the word ‘the’. His speech lacked the feature of dropping of /r/. Except an instance of
aspiration of /k/ in one word, his speech had no conformity to many of the features in R.P pattern.

3.3.15 Speaker No. 15

a. Vowels

S15 comes from TMBS, which is located in Kamareddy.

S15 had 18 vowels in the phonemic inventory. Among them, 17 had conformity to R.P pattern. /əu/ was realized as a long vowel /oː/. /eə/ and /uə/ did not figure in his speech. They were realized as /eɪər/, /eːr/ and /ʊər/ in words 'air', 'aeronautical' and 'cure'. /oː/ did not figure in the vowel inventory of S15. Responses to the words 'doors', 'course', 'ball', 'football' represent spelling-pronunciation and presence of active mother tongue in his English. The vowel had three different forms /əːr/ as in 'doors', 'course'; /ɒ/ as in 'ball', 'football'; /ɑː/ as in 'all'. He was one of the two TMBS speakers, who had the phoneme /eɪr/ in the vowel inventory.

b. Consonants

S15 had 24 consonants in the consonant inventory. Among them, the deviant consonants were the fricatives /v/, /θ/, /ð/. The speaker rendered them as [v], [θʰ] and [ð] respectively. Retroflexion of /t, d/ was present in his speech although they were the allophonic variations of /t, d/.
Inaudible release of word final plosives was completely non-existent in his speech. Devoicing of /d/ in the case of -ed was not found. Plurals and present verb forms -s as /z/ or /iz/ was also not noticed in his speech. Dropping of /r/ was also not realized in the speech samples of S15. Weak forms for structural words were not maintained in the speech. Except an instance of aspiration of /k/ in two words, his speech sample did not have conformity to the other features in R.P pattern.

3.3.16 Speaker No. 16

a. Vowels

S16 comes from TMBS, which is located in Vijayawada (Urban), coastal Andhra Pradesh. S16 had 17 vowels as part of the vowel inventory. Among them, 13 vowels had conformity to R.P pattern. [i, u] were used for /i, u/ in R.P. /ɔː/, /ɛi/, /əu/, /ea/ and /uə/ did not figure in the phonemic inventory. /ɔː/ was deviated as /ɔ/ in 'first of all', 'call'; as /əː:/ 'all', 'because ' (3)° and as /ɔːr/ in 'doors, score', 'four' (2) representing the spelling-pronunciation. /ɛi/ and /eu/ were monophthongized as /eː:/ and /oː:/ respectively. /æ/ and /ʊə/ were realized as /eɪr/ in 'air', as /eːr/

° The number in parenthesis after the word indicates the number of occurrences of that particular word. For e.g., 'because' (3). The word 'because' had occurred thrice in the speech of S16.
'software, there (2); as /uːɹ/ in 'cure' representing the influence of mother
tongue, of being misled by spelling pronunciation.

b. Consonants

S16 had 23 consonants in the consonant inventory. /ʒ/ was not
found in the speech sample of S16. It was replaced by voiced palato-
alveolar affricate /dʒ/. Among the 23, the fricatives /v, θ/ and /ð/ were
realized as /v, ɾh/ and /d/ respectively. His speech sample lacked
aspiration of /p, t, k/. Word final plosives were audibly released in his
speech. Retroflexion of /ʈ, ɖ/ was present in the speech sample. Dropping
of /ɾ/ was unavailable when the situation demanded in a majority of its
occurrences. Realization of plurals and third person verb forms -s as /z/
and /İz/ were completely non-existent in his speech samples. Insertion of
palatal approximant /j/ before /æ/ and /e/ in words like 'as', 'am' and
'M.Tech' etc was a peculiar feature of his speech sample. This could be
because of the active mother tongue Telugu in his spoken English. Because
in Telugu, insertion of /j/ before the front vowels does not really change
the meaning. For e.g. /əkkaɖa/ vs. /jəkkaɖa/ 'where'. Insertion of palatal
approximant before the vowels indicates fossilization of the speech habits.
It is also interesting to note that the speaker No. 16 constantly replaced the
voiced alveolar fricative /z/ with /dʒ/ in many words like 'zip',

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'examination', 'is' etc. whereas he rendered 'is', 'because' with a /z/ in other sections of speech sample. The speaker in most part of his speech did not use weak forms for structural words.

3.3.17 Speaker No. 17

a. Vowels

S17 comes from TMBS, which is located in Vijayawada, coastal Andhra Pradesh. S17 had 17 vowels in the vowel inventory. Among them, 13 had conformity to R.P pattern. R.P /ɪ/ and /u/ were realized as /i, u/ which is a pan-Indian feature. The pure vowel /oː/ did not figure in the phonemic inventory. It was deviated as /oːr/ in 'doors', 'course' and as /u/ in 'call', 'all'. The diphthongs /ɛɪ/ and /əu/ were monophthongized as /eː/ and /oː/ in the speech. But the diphthongs were present in the speech as allophonic variations of the phonemes /eː/ and /oː/. /əə/ and /uə/ were not present in the vowel inventory.

b. Consonants

S17's speech contains 24 consonants in the phonemic inventory. Among them, the three fricatives were deviant from R.P. dental fricatives /θ, ș/ were rendered as dental stops [ʃ, ʂ] respectively. The voiced labio dental fricative /v/ was realized as a labio-dental approximant [ʋ] in the
speech. His speech lacked aspiration of \(/p, t, k\/\). Word final plosives were inaudibly released in a few words in the speech. Plural form \(-s\) as \(/z/\) was maintained in some words although realization of \(-s\) of \(/\text{iz}/\) was not found. It was deviated as \(/\text{es}/\) in 'houses'. Past and participle verb forms \(-\text{ed}\) as \(/t/\) or \(/\text{id}/\) was not maintained in the speech. Retroflex sounds\([t, d]\) unlike the other speakers were not found except for one word. He maintained weak forms for structural words like 'for', 'is', 'am', 'some', 'will' etc. Dropping of \(/r/\) was not found.

3.3.18 Speaker No. 18

a. Vowels

S18 comes from TMBS, which is located in Vijayawada, coastal Andhra Pradesh. No contributive environment was provided at home regarding the career or future plans.

S18 had 17 vowels in the phonemic inventory. But among them, 13 vowels had conformity to R.P pattern. \(/i, u/\) vowels were realized as \([i]\) and \([u]\). \(/\text{o}/\) did not appear in the vowel inventory. The diphthongs \(/\text{e}\text{i}/\) and \(/\text{e}\text{u}/\) were realized as \(/\text{e}\text{j}/\) and \(/\text{o}\text:j/\) respectively. \(/\text{e}\text{i}/\) was present in his speech as an allophonic variation of the phoneme \(/\text{e}\text{j}/\) whereas \(/\text{e}\text{u}/\) did
not even occur as an allophonic variation of /o:/, /æ/ and /uə/ were
realized as /eir/ and /uːr/ respectively.

b. Consonants

24 consonants were part of the consonant inventory of S18. Among
them, 21 had conformed to R.P. pattern. The three deviant consonants were
[u], [θʰ], [ʃ] for the R.P fricatives /v/, /θ/, /ʃ/ respectively. His speech
lacked aspiration of /p, t/ and /k/. Whereas it is interesting to note that
aspiration was found with /tʃ/ in ‘check’ [tʃek] and with [tʰ] in ‘thick’
[tʰɪk]. Retroflexion was present in his speech with /t, d/. Word final
plosives were not inaudibly released. Realization of –ed as /ɪd/ was also
found missing in words like ‘erected’, ‘interested’. Plurals and third person
verb forms of –s as /z/ and /ɪz/ were not maintained in the speech.
Dropping /r/ was not maintained with an exception in ‘university’ in the
whole speech of S18. Another peculiar feature of the speech sample of S18
was the insertion of /j/ before and after the front vowels in words like ‘I’
/aj/; M.S. /jemes/ ‘my’ /maj/, ‘a’ /je/ etc. Weak forms for structural
words were not used in the speech.
3.3.19 Speaker No. 19

a. Vowels

S19 comes from TMBS, which is located in Kamareddy. He seemed to be not clear about the future plans.

S19 had 17 vowels in the phonemic inventory. Among them, 13 vowels were in accordance with R.P vowels. [i] and [u] were used for /i/ and /u/ respectively. /ɔ:/ did not figure in the phonemic inventory like many other TMBS speakers. /eɪ/ and /əʊ/ were realized as /e:/ and /o:/ respectively. He was one of the few TMBS speakers who had /eɪ/ as an allophonic variation of /e:/ /eə/ and /əʊ/ were also not present in the vowel inventory as /eːr/ /uːr/ respectively in words ‘air, software’ and ‘cure’.

b. Consonants

S19 had 24 consonants in the consonant inventory. Among them, 3 consonants had no conformity to R.P. pattern. The voiced labio-dental fricative /v/ was realized as approximant [u]. Dental fricatives /θ, ð/ were rendered as [tʰ] and [ð] respectively. It is interesting to note that aspiration was found with /k/ in ‘key’ whereas /p, t/ were not aspirated in the initial position of a stressed syllable. The voiceless fricative /θ/ was aspirated as [tʰ] whereas the voiced one /ð/ was not. Retroflexion of
/t,d/ was present in the speech. Word final plosives were not inaudibly released. Past and participle verb forms of -ed as /ɪd/ were not found in the speech. Plurals and third person verb forms of -s as /z/ and /iz/ were also found missing in the speech sample of S19. Dropping of /r/ was also not maintained in the speech with an exception of ‘university’ and ‘entertaining’. Weak forms of ‘the’, ‘am’ were found but they were not maintained for the rest of the structural words in the speech sample.

3.3.20 Speaker No. 20

a. Vowels

S20 comes from TMBS, which is located in a village in Nalgonda District of Andhra Pradesh. No contributive environment was provided at home regarding the future career plans etc. His medium of instruction was Telugu even after schooling, i.e., at the intermediate level.

S20 had 16 vowels in the phonemic inventory. Among them, 8 vowels had no conformity to R.P pattern. /ɪ, u/ were realized as [i, u]. The diphthongs /eɪ, əʊ, ɪə, ɛə, ʊə/ and pure vowel /oː/ were not present in the vowel inventory. The diphthongs /eɪ, əʊ, ɪə, ɛə, ʊə/ were realized as /eː, oː, iɛ, eɪr and uːr/ respectively.
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b. Consonants

S20 had 23 consonants in the consonant inventory. Voiced palato-alveolar fricative /ʒ/ was not part of his inventory. Instead voiced alveolar fricative /z/ was used. The deviant consonants were [v, ʒ, ð] for the fricatives /v, ʒ, ð/ respectively. The other interesting feature was the speaker used /z/ for /dʒ/ in words like 'technology', 'college'; /dʒ/ for /z/ in 'zip' and used /z/ for /ʒ/ in word 'measure'. His speech lacked aspiration of /p, t, k/. A degree of retroflexion was found with /t/ and /d/ in his speech. Word final plosives were audibly articulated. His speech lacked different realizations of plurals and third person verb forms of -s as /iz/ and /z/. Past tense marker -ed as /id/ was also missing in his speech. Weak forms of structural words were not maintained in the speech. The feature of dropping of /r/ was also not found in the speech sample of S20.

3.4 Speakers of English Medium Background in School (EMBS) vs. Telugu Medium Background in School (TMBS)

As mentioned in Chapter-2 (see 2.1 Choice of the Speakers for more details), speaker numbers S1-10 were from EMBS and S11-20 were from TMBS. It is interesting to study the differences in spoken English between EMBS and TMBS speakers.
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➤ Vowels

- If the Table No. 3 dealing with the phonemic inventory—vowels is studied carefully, 60% of the EMBS speakers had /ɔ:/ whereas only 10% of TMBS had /ɔ:/ in the vowel inventory.

- The diphthong /eɪ/ was realized in the speech of 50% of the EMBS speakers whereas only 20% of the TMBS speakers had /eɪ/.

- [əʊ] was part of the phonemic inventory of 30% of the EMBS whereas nobody in TMBS speakers had the diphthong.

- /æʊ/ had conformity with the R.P. pattern in the case of 20% of the EMBS whereas none of the TMBS had the diphthong.

- 50% of the speakers of EMBS had conformity with the R.P. pattern in the case of /ʊə/ whereas none of the TMBS speakers had the phoneme.

- The diphthongs [eɪ, eʊ, uə, əʊ] were monophthongized in the speech of TMBS speakers more than the EMBS speakers.

➤ Consonants

- As the Table No. 4 Phonemic Inventory—Consonants indicates, all the speakers did not have problems with the plosives, affricates, nasals, lateral and semi-vowels in general.
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- All the speakers invariably replaced /θ,ð/ with the dentals [t̪], [d̪] respectively. This could be because of their mother tongue Telugu which lacks /θ,ð/. Many aspirated [t̪].

- 50% of the EMBS speakers used a voiced labio-dental fricative /v/, whereas only 10% of the TMBS used the fricative. The rest of the speakers used a frictionless continuant [v].

- In the case of a voiced palato-alveolar fricative /ʒ/, 30% of the TMBS had replaced it with either /z/ or /dʒ/.

3.5 Deviations from R.P.

Having looked at the deviations from R.P. phonemes in the inventory, all the phonemic deviations by the speakers can be looked at in detail.

3.5.1 Deviations from R.P. – Vowels

The following Table No. 5 deals with all the vowel deviations by the speakers.
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</tr>
</tbody>
</table>

*The first column of the table indicates R.P. Vowel sound. The second column indicates the deviated form as realized by the speakers. The numbers in the first row indicates Speaker numbers 1-20. The last column is the majority pattern of the vowels among the speakers.

* o is a symbol for ‘deletion’.
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1. A careful look at the Majority Pattern in the last column of the Table No.5 Deviations from R.P. Vowels indicates the substitutions from R.P. pattern.

2. The front half close /i/ was realized as /ɪ:/ by 80% of speakers in words like 'be', 'very' etc.

3. /i/ was rendered as /e/ by all the speakers in words like 'development', 'erected' etc.

4. In place of /e/, /ɪ/ was used by almost all the speakers except one speaker (S1) in words like 'engineer'. The word in Telugu is written in such a way that it is pronounced /ɪndʒənɪr/ resulting in two or three deviations from R.P. pattern.

5. /æ:/ was rendered as /æ/ in words like 'example' by 35% of the speakers.

6. /æ/ was rendered as /æ:/ in words like 'examination' by 20% of the speakers.

7. /o:/ was realized as /ɒ/ by 65% of the speakers in words like 'all', 'call' etc. the same vowel was found to be deviated as /o:/ or /ɒː/ by 95% of the speakers in words like 'doors' reflecting the influence of spelling - pronunciation.

8. /uː/ was deviated as /u/ in words like 'computer, -es' by 50% of the speakers.
9. The number of deviant forms was more for schwa /ə/. It had seven deviant forms /i, ʊ, e, ʌ, a, æ, o/.

10. /ə/ was rendered as /i/ by 90% of the speakers in words such as ‘the rooms’ etc.

11. /ə/ was deviated as /e/ by all the speakers in words such as ‘ago’ ‘development’ etc.

All the speakers rendered /ə/ as /ʌ/ in words like ‘computers’, ‘control’ (v), etc.

12. /ə/ was found to be /a/ by 65% of the speakers in words like ‘from’, ‘the’ etc.

13. /æ/ was used for /ə/ in words like ‘as common as’ etc. by all the speakers.

14. /əː/ was deviated as /ə/ in words like ‘university’. by 60% of the speakers. If the table is clearly noticed, 80% of the TMBS speakers rendered the vowel as /ə/ whereas it was 40% with the EMBS speakers.

15. The diphthong /eɪ/ was monophthongized as /eː/ by 95% of the speakers.

\(^1\) A symbol ɸ is for ‘deletion’.
16. /e/ was used for the R.P. /əI/ by 65% of the speakers. It is interesting to note that the long vowel /e:/ was used for the content words like 'take', 'examination' etc. whereas /e/ was used for the structural words like 'they', 'may' etc.

17. /au/ was monophthongized as /ɔː/ by all the speakers invariably. The diphthong was also deviated as /ɔ/ and /ɔː/. Even in the deviated responses to the diphthong, a pattern had emerged almost throughout the speech samples. For the content words like 'note', 'control' etc., the long vowel was used. For the other words like 'so' etc. /ɔː/ or /ɔ/ was used.

18. /ɪə/ was rendered as /iːr/ by 70% of the speakers in words like 'engineer'. It is interesting to note that the diphthong was maintained in words like 'clear' which had the same phoneme as the test item. This could be because of the misleading spelling pronunciation.

19. The diphthong /eə/ was rendered as /eːr/ by 60% of the speakers in words like 'air', 'software', 'there' etc. The same diphthong was realized as /eɪr/ by 80% of the TMBS speakers. S15, S16 deviated the diphthong as /eɪr/ in 'air' and as /eːr/ in 'aeronautical' (S15), 'software', 'there'. The deviated responses to this diphthong throw light on influence of spelling and active mother tongue in their spoken English.
20. /uə/ was realized as /uːə/ by 75% of the speakers in words like ‘cure’. All the TMBS speakers deviated /uə/ as /uːə/ in the speech whereas 50% of the EMBS speakers had the deviation.

3.5.2 Deviations from R.P. – Consonants

Speakers deviated from R.P. consonants in the word list, reading and free speech sections. A close look at the Table No. 6 below indicates all the consonantal deviations from R.P. pattern. The last column of the table reveals majority pattern.
| Spkr no.→ Phoneme→ | Deviation | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. | 17. | 18. | 19. | 20. | MP* |
|---------------------|-----------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| t→                  | t         | t  | t  | t  | t  | t  | t  | t  | t  | t  | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    |
| d                   |           | d  | d  | d  | d  | d  | d  | d  | d  | d  | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    |
| s'                  |           | s' | s' | s' | s' | s' | s' | s' | s' | s' | s'    | s'    | s'    | s'    | s'    | s'    | s'    | s'    | s'    | s'    | s'    | s'    | s'    |
| tʃ                   |           | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    |
| d→                  |           | d  | d  | d  | d  | d  | d  | d  | d  | d  | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    | d    |
| t                   |           | t  | t  | t  | t  | t  | t  | t  | t  | t  | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    | t    |
| tʃ→                 |           | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    | tʃ    |
| dʒ→                 |           | z  | z  | z  | z  | z  | z  | z  | z  | z  | z    | z    | z    | z    | z    | z    | z    | z    | z    | z    | z    | z    | z    |
| v→                  |           | u  | u  | u  | u  | u  | u  | u  | u  | u  | u    | u    | u    | u    | u    | u    | u    | u    | u    | u    | u    | u    | u    |
| w                   |           | w  | w  | w  | w  | w  | w  | w  | w  | w  | w    | w    | w    | w    | w    | w    | w    | w    | w    | w    | w    | w    | w    |
| ə→                  |           | ə  | ə  | ə  | ə  | ə  | ə  | ə  | ə  | ə  | ə    | ə    | ə    | ə    | ə    | ə    | ə    | ə    | ə    | ə    | ə    | ə    |

*MP=Majority Pattern  
Spkr=Speaker  
's = A symbol for deletion
If the last column of the table is looked at carefully, it reveals that the speakers had eight major deviant forms from the R.P. The first two columns indicate that these eight deviations had resulted from six consonants.

They were /t, d, v, θ, ð, s, z/.

A degree of retroflexion was prominently audible with the plosives /t, d/ as /t̚, d̚/. /t/ was deviated as [t̚] by 85% of the speakers.

/d/ was deviated as [d̚] by 70% of the speakers. 80% of the TMBS speakers deviated the plosive with a retroflex whereas 60% of the EMBS speakers rendered [d̚] for /d/. It is interesting to note that these retroflex plosives were the allophonic variations of /t, d/ for all the speakers.

All the speakers had the deviation of the fricative /v/ as frictionless continuant [v]. But 50% of the EMBS speakers had /v/ in the vowel inventory. One of the TMBS speakers had /v/ as a phoneme in the speech. The rest of the speakers had [v] in the phonemic inventory.

90% of the speakers rendered the fricative /θ/ as [θʰ]. 30% of the EMBS speakers deviated /θ/ as [θ] without aspiration, whereas 70% of the TMBS speakers had /θ/ as [θʰ].
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- It is surprising to note that S6, S7 (from EMBS) and S11, S15, S16, S17, S18, S19, S20 (from TMBS) had both the deviant forms \([t]\) and \([t^h]\) for /θ/ in the speech. For these speakers \([t]\) and \([t^h]\) for /θ/ could be free variations.

- The dental fricative /ð/ was realized as a dental plosive [ç] by all the speakers throughout the speech except one from EMBS.

- It is interesting to note that /θ/ was realized as \([t^h]\) with an aspiration and /ð/ was realized as [ç] without an aspiration. This could be because of the mother tongue influence. Spelling pronunciation in words ‘everything’, ‘thick’ also could have been the reason for this kind of deviation.

- /s/ was realized as /z/ by 90% of the speakers in words like ‘possible’.

- /z/ was realized as /s/ by 95% of the speakers. This could be because of the unawareness of the speakers to use different realizations of plurals and present third person verb forms.

- Although the deviation of /z/ as /dʒ/ was not in the majority pattern, it is interesting to note that 50% of the TMBS speakers had the deviation.