ABSTRACT

The aim of this study is to describe the segmental and suprasegmental features of English spoken by the first year students of Bachelor of Technology (B.Tech.) in colleges of engineering and technology affiliated to Jawaharlal Nehru Technological University (JNTU) in the state of Andhra Pradesh. It also aims at finding out the phonetic differences between the students of English Medium Background in School (EMBS) and the students of Telugu Medium Background in School (TMBS). The segmental features include the phonemic inventory of the speakers and deviations from Received Pronunciation (R.P.) phonemes. Under suprasegmental features, word accent, tempo, intonation and any other features like syllabic consonants, gemination, vocalic ending of the consonants were studied.

Chapter 1 Introduction deals with the need for the present study, set up of engineering colleges in Andhra Pradesh, status of English course in JNTU, review of earlier studies, the segmental and the suprasegmental features of spoken medium present in the speech samples. Aim of the present study is also discussed in this chapter.

Chapter 2 Procedure presents the choice of the subjects, choice of the text and the test items, the procedure adopted for data collection and the data compilation and the analysis of the speech samples.
Chapter 3 aims at the analysis of the segmental features of the speech samples. Under segmental features, phonemic inventory and deviations from R.P. phonemes as realized in the speech of all the twenty speakers were discussed in detail. 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.

Some of the important findings are as follows:

- The Vowel Inventory of the speakers indicates that all the speakers did not have any problems with the front pure vowels /i,i:, e,æ/.
- All the speakers had /ɑ:,ɒ,u,u:,ə,ʌ,əi,ɔi,əu,ɪə/ as part of their phonemic inventory.
- Except one all the speakers had /æ:/ 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,ɑ:,ɒ,u,u:,ə,ə:,ʌ,ai,ɔi,əu,ɪə/.
- Pure vowel /ɔ:/ and diphthongs /ei/, /əu/, /eə/ and /ua/ were not part of the majority pattern of the vowel inventory.
- The pure vowel most of them lacked was /ɔ:/ 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 /oː/.
• /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.

➢ Consonant Inventory indicates that most of the speakers had no problems with the plosives, affricates, nasals, lateral and semi-vowels (except one speaker).

➢ Voiced labio-dental fricative /v/ was realized as a voiced labio-dental frictionless continuant [v]. Dental fricatives /θ, ō/ were realized as dental stops [tʰ, ɖ]. 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, ō/ with the dental stops.

➢ 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.

➢ Plural marker -s was realized as /s/ in words like ‘computers, rooms, lines, doors’ etc. by almost all the speakers, where it was expected to be /z/.

➢ Except S3, weak forms were not present in the speech samples.
Chapter 4 Suprasegmental Features endeavours to study the word accent, tempo, intonation and any other features like syllabic consonants, gemination, vocalic ending of the word final consonants etc.

Word Accent

- Out of thirteen words given for word accent, only two words in the majority pattern were according to R.P.
- Among the eleven deviated words, only one word i.e., 'examination' had accent on the second syllable. The rest of the words had accent on the first syllable.

Tempo

- The fastest tempo (5.04 syllables/sec) of reading among all the speakers was noticed with EMBS speaker No. 5. The slowest speaker was at the rate of 2.8 syllables/sec., who was from TMBS.
- Total number of syllables in the passage for reading varied from speaker to speaker. They ranged from 114 syllables to 133 syllables.

Intonation

- All the speakers had unusual tone group boundaries within the phrase. The number of deviations regarding tonality varied from speaker to speaker.
- In general, the tonic accent was not located on the last content word of the tone group.
• Use of a falling tone for a rising tone was the majority pattern of intonation deviation in reading the passage.

• Use of rising tone instead of a falling tone was the majority pattern of intonation deviation in free speech. This could be because of an indication of incompleteness of meaning in the free speech.

• Use of falling rising tone or the level tone was minimal (three instances of level tone in the whole text).

Any Other Features

• None of the speakers had syllabic consonants in their speech. All the speakers realized the words ‘people’ /piːpul/ ‘possible’ /pɔzɪbəl/.

Chapter 5 Conclusion summarizes the findings of the segmental and the suprasegmental features of the speech samples. It also focuses on the Mother Tongue Pull, Spelling Pronunciation and the differences between the speakers of EMBS and TMBS. Instances of mother tongue pull and spelling pronunciation were found in the speech samples. Some of the instances of spelling pronunciation are mentioned below.

> /ɔː:/ was realized as [ɔːr] in the word ‘doors’ by many speakers.

> /ɪə/ in the word ‘engineer’ was realized as /iːr/ by fourteen speakers. The exceptions were S1, S3, S4, S5 and S14.

> /eə/ was deviated as [eːr] and [eɪr] in words like ‘air’, ‘software’ etc. Some speakers like S13, S14 rendered /eə/ as [eɪr] in ‘air’ and
as [e:r] in ‘software’. The responses clearly indicate that spelling had misled them while rendering these words.

➢ Voiceless labio-dental fricative /θ/ was realized as [tʰ] by many of the speakers. Words like ‘thick, everything’ were rendered with an aspiration of the dental plosive. This also indicates that the presence of ‘h’ in the word could have misled them. Aspiration of [t] as [tʰ] also indicates an instance of spelling pronunciation.

➢ Gemination, vocalic ending of the word final consonants were present in the speech samples. Gemination of the consonants was found in the speech of eight speakers. This also indicates mother tongue pull. In Telugu, a consonant is geminated when a double letter in spelling represents it.

➢ Vocalic endings of the word final consonants were found in the speech of seven speakers. This is an indication of mother tongue influence in their spoken English. Most Telugu words end in a vowel.

**Speakers of EMBS vs. TMBS**

- It is interesting to note that 60% of the EMBS speakers had the pure vowel /ɔː/ whereas only 20% of the TMBS speakers had the vowel in their vowel inventory.

- When 50% of the EMBS speakers had the diphthong /uə/, none of the TMBS speakers had this vowel in their inventory.
• /əI/ was found in the inventory of 50% of the EMBS whereas it was 20% with the TMBS.

• Coming to the consonant inventory, voiced labio-dental fricative /v/ was present in the inventory of 50% of EMBS speakers whereas only one speaker from TMBS had the fricative in the inventory.

• /ʒ/ was not in the speech of 30% of the TMBS speakers. All the speakers from EMBS had the fricative.

• 60% of the EMBS rightly accented on the third syllable of the word 'artificial' whereas it was only 20% with TMBS.

• The word a'go was accented correctly on the second syllable by 70% of the EMBS speakers whereas it was only 30% with the TMBS.

• Vocalic ending of the word final consonants were more in the speech of TMBS compared to the speakers of EMBS.

Suggestions for future research are also discussed in the last chapter. It ends with an epilogue in which various factors such as importance of language laboratories in the colleges of engineering and technology, need for adequate resources, training to impart the effective spoken skills of the students of engineering and technology were mentioned.