

APPENDIX 1

COMPARATIVE STUDY OF SPEECH UNITS

The following table gives the comparative statement of various speech units.

Table A1.1 Comparative statement of various speech units

S. No.	Speech Units	Unit size	Number of units	Nature of the Database	Phonetic richness	Speech Dynamics
1	Phonemes	Smaller (Basic unit)	Less	Tiny. But nothing sparse.	Lag coarticulation information	Not addressed
2	Diphones	Relatively Larger. Permutations of two phones.	More	Small. May have some sparse entries	Have some coarticulation information	Addressed better
3	Triphones	Larger. Permutations of three phones.	Huge	Bulky and sparse database.	Supplies more coarticulation information	Well-addressed
4	Syllables	Depends on the pattern of the syllable.	More	Large. But nothing sparse.	Supplies more coarticulation information	Well-addressed
5	Polysyllables	Depends on the pattern of the	More	Large. But somewhat sparse.	Supplies more coarticulation information	Well-addressed



		syllables.			than syllables	
6	Words	Equivalent to a polysyllable	More and precise for a language	Large.	Complete pronunciation pattern is described	Very well-addressed

