

Table 1: Distribution of the Vowel /i:/

Lambada words in English script	Transcription of Lambada words	Gloss
Eez	/i:z/	This
Beed	/bi:d/	forest
Kaldee	/ka:ldi:/	skin

The Lambada vowel /i:/ is similar to English long vowel /i:/ as in the words ‘eat’, ‘seen’, and ‘read’. The lips are in neutral position or slightly spread during the pronunciation of this vowel. The tip of the tongue is placed on the inner side of the lower front teeth and front part of the tongue is raised towards the alveolar ridge. According to the position of the speech organs during the process of pronunciation of long vowel /i:/, may be defined as an unrounded, front, high vowel. It may vary from a short to an extra long vowel, depending on the emphasis and the manner of pronunciation. In casual pronunciation it is not as long as English vowel /i:/ but longer than English short vowel /i/. The first formant of the vowel is placed at 320 Hz, The second formant is situated around 2400 Hz, and third formant may vary around 3000 Hz. Average duration of this vowel is 139 milliseconds.

6.2. The vowel /i/

The vowel /i/ is a Front Close Unrounded Vowel.

Table 2: Distribution of the vowel /i/

Lambada Words in English Script	Transcription of Lambada Words	Gloss
Idhe	/idɛ/	This/That
Kidhi	/kidi/	Done
Aarsi	/a:rsi/	Mirror

The Lambada vowel /i/ is shorter than Lambada long vowel /i:/. The short vowel /i/ is more open than long vowel. It is not as open as English short vowel /i/ as pronounced in words like ‘sit’, ‘city’, ‘kick’ and ‘baby’. In the pronunciation of short vowel /i/ the tip of the tongue is placed on the inner side of the front teeth and the front part of the tongue is raised towards the alveolar ridge of the roof of the mouth. The lips are in neutral position as for breathing through the mouth. Short Lambada vowel /i/ is front, high, unrounded vowel. The first formant of the Lambada short vowel /i/ is placed at about 310 Hz and going up 350 Hz. The second formant is situated at 2100 Hz and the third formant is placed at 3150 Hz. The duration of the vowel is 106 milliseconds. The main difference between /i/ and its longer counterpart /i:/ is that of length.

6.3. The vowel /ɛ/

The vowel /ɛ/ is a Front, Half close and Unrounded Vowel.

Table 3: Distribution of the vowel /ɛ/

Lambada Words in English Script	Transcription of Lambada Words	Gloss
Evdi	/evdi/	This side
Kela	/kɛlə/	Banana
Idhe	/idɛ/	This

This Lambada vowel /ɛ/ is more open than English vowel /e/ as pronounced in words such as ‘bed, get, met and set’. During the production of this vowel, the lips are in neutral position, and the opening depends on the jaw angle. The tip of the tongue is placed on the edge of the lower teeth; it is slightly curved in its front part, which is raised towards the front part of the teeth. The soft palate is raised, preventing passage of the air stream through the nasal cavities. The vocal cords are set in action and it is front vowel which covers the region from half-close to half-open positions the lips are loosely spread. The acoustic structure of the vowel shows the first formant evident at 410 Hz, the second formant is placed 2200, the third formant is situated around 2500 Hz. The average duration of vowel is 105 milliseconds.

6.4. The vowel /ɛ:/

The vowel /ɛ:/ is a Centralized Front, Nearly Half close Unrounded Vowel.

Table 4: Distribution of the vowel /ɛ:/

Lambada words in English script	Transcription of Lambada words	Gloss
Bes	/bɛ:s/	sitting
Keth	/kɛ:t/	field
Yeji	/jɛ:dʒi/	yet

The Lambada vowel /ɛ:/ is a centralized front, nearly half close unrounded vowel. The Indian speakers have the habit of using /ɛ:/ instead of English diphthong /ei/ when they pronounce words ‘say’, ‘make’, ‘great’, ‘paper’. The long Lambada vowel /ɛ:/ shows the first formant at 416 Hz and the second formant is placed around 2380 Hz and the third formant is situated at 2650 Hz. The duration of this vowel is 191 milliseconds.

6.5. The vowel /a/

The vowel /a/ is a Central, open and Spread Vowel.

Table 5: Distribution of the vowel /a/

Lambada words in English script	Transcription of Lambada words	Gloss
Lakidee	/lakidi:/	stick
Kanduva	/kanduva/	towel
Acho	/atʃo/	good

Short central vowel /a/ is similar to English vowel /ʌ/ as pronounced in words such as ‘cup’, ‘bud’, and ‘nut’. They have some similarity and the English vowel may serve as reference. There is reduction in quality when it is clustered with nasal sounds. The position of the lips is neutral during the production of this vowel and their opening depends on the jaw angle. The front part of the tip of the tongue and the mid part of it are in neutral position. The back part of it is pushed slightly backward in descending position. The acoustic structure of short central vowel /a/ displays larger dynamics in the first formant than long lambada vowel /a:/ it may fluctuate at 800 Hz, the second formant may be at 1600 Hz, and the

third formant is around 2650 Hz. Its duration is 102 milliseconds.

6.6. The vowel /a:/

The vowel /a:/ is a Open, Unrounded Half back Vowel.

Table 6: Distribution the vowel /a:/

Lambada words in English script	Transcription of Lambada words	Gloss
Aaj	/a:dʒ/	today
Paani	/pa:ni/	water
Baa	/ba:/	dad

The Lambada vowel/a:/ has great similarity with the English back long vowel, English back vowel is more back and more open than Lambada back vowel. The tip of the tongue is placed behind the ridge of the lower teeth, not pressing it. The front part of the tongue is slightly hollowed in its mid area and the middle part of the tongue is elevated to a slight degree towards the position of the back part of the tongue which is pulled back into a gently sloping position. Lambada vowel /a:/ is an open, unrounded half back vowel. The vowel is not centralized, and fully voiced. The length of the vowel depends on the stress, degree of emphasis, position in the word, contextual place and from person to person, the variability of the length of the vowel does not particularly affect the vowel quality. The structure of the long vowel /a:/ shows the first formant has a very stable position around 750 Hz, the second formant is placed around 1350 Hz and the third formant is placed around 3000 Hz. The duration of the vowel is 113 milliseconds.

6.7. The vowel /o/

The vowel /o/ is a Back, High mid and Rounded vowel.

Table 7: Distribution the vowel /o/

Lambada words in English script	Transcription of Lambada words	Gloss
Tokno	/tokno/	Vessel
Kho	/k ^b o/	eat
Sojo	/sodʒo/	sleep

It resembles the English short vowel /ɔ/ or/ɒ/, as in ‘object’, ‘got’, ‘office’ and ‘pot’. It is not as open as the English vowel. The lips are more rounded, hence the vowel is closer according to the lip position and it is the counter part to the long vowel /o:/. The difference between long vowel /o:/ and short vowel /o/ in Lambada language is reflected in the position of the first two formants . The first formant is placed at around 450 Hz and the second formant at around 950 Hz, the second formant is not more than 1000 Hz, the third formant is at 2350 Hz. The vowel duration is 120 milliseconds.

6.8. The vowel /o:/

The vowel /o:/ is a Back, Low mid and Rounded Vowel.

Table 8: Distribution of the vowel /o:/

Lambada words in English script	Transcription of Lambada words	Gloss
Or	/o:r/	hers
Kon	/ko:n/	Who?
Kor	/ko:r/	gents

The quality of this vowel is not as closed as that of long English vowel /ɔ:/ as in words ‘sword’, ‘court’, ‘fort’ and ‘caught’. It is not as open as short English vowel /ɒ/ in the words ‘lot’, ‘hot’ and ‘cot’. The vowel is nearer to the first part of English diphthong /ɛ↔u/ as in words ‘boat’, ‘cold’, ‘gold’, ‘road’ and ‘post’. During the pronunciation of long vowel /o:/ the lips are rounded , the jaw angle is that for a half-closed vowel. The tip of the tongue rests on the gum of the lower front teeth and the back of the tongue raised towards the palato-velar area. The air stream is prevented from going through the nose cavities by the elevation of soft palate, the vocal cords are set in action. The structure of the long vowel /o:/ shows The first formant is placed at 460 Hz, second formant is around 950 Hz and the third formant is situated at 2300 Hz. The vowel duration is 110 milliseconds.

6.9. The vowel /u/

The vowel /u/ is a High, Back and Rounded Vowel.

Table 9: Distribution of the vowel /u/

Lambada words in English script	Transcription of Lambada words	Gloss
Phupa	/p ^h upa/	uncle
Undar	/ undar/	rat
Sa:su	/sa:su/	aunt

Compared with English short vowel /u/, as in ‘put’, ‘foot’, ‘took’ and ‘would’, Lambada vowel /u/ is less open, but it is not as closed as English long vowel /u:/ in words such as ‘tool’, ‘food’, ‘moon’ and ‘move’. The lips are rounded and slightly protruded. Vowel /u/ is closed, largely due to the narrow aperture of the lips. The tip of the tongue rests loosely behind the gum of the lower teeth. The front part and the middle of the tongue are gradually raised towards the palato- velar area, creating a narrow passage for the air stream to pass through the mouth. The soft palate is raised the vocal cords are in action and the vowel is fully voiced. The acoustic structure of the vowel is characterized mainly by the first formant which is located around 350 Hz. The second formant is at 1000 Hz and the third formant is situated 2800 Hz. The duration of back vowel is 136 milliseconds.

6.10. The vowel /u:/

The vowel /u:/ is a Back, Close and Rounded Vowel.

Table 10: Distribution of the vowel /u:/

Lambada words in English script	Transcription of Lambada words	Gloss
Pool	/pu:l/	Flowers
Moondo	/mu:ndo/	Face
Noon	/nu:nn/	Salt

In the articulation of the vowel /u:/ the lips are rounded and protruded as for a closed back vowel. They are not as rounded as for English long vowel /u:/ and the opening is steady throughout the entire articulation. The jaw angle is neutral as when breathing through the mouth. The tip of the tongue lies loosely behind the gums of the lower front teeth and the back of the tongue is raised towards the soft palate in high position, pulled backwards, it is a close, rounded back vowel. The first formant of long vowel /u:/ is situated around 400 Hz with its lower limit at 350 Hz. The second formant is found at about 900 Hz and the third formant is situated between 2500 Hz and 2800 Hz. The duration of this vowel is 160 milliseconds.

6.11. Diphthongs

Two diphthongs are regular speech sounds in the Lambada language and in all Indian languages as well.

6.11.1. The diphthong /au/

The diphthong /au/ is a Front Open Unrounded Vowel Just above Half Close.

Table 11: Distribution of the vowel /au/

<i>Lambada words in English script</i>	<i>Transcription of Lambada words</i>	<i>Gloss</i>
Oudi	/audi/	There/ that side
Gaudi	/gaudi/	Cow
Thaudo	/taudo/	Sunlight

Diphthong /au/ has a more stable quality than diphthong /ai/. Sometimes it is realized as diphthong /ou/ in some Lambada speakers' pronunciation; the glide for this diphthong begins at the back open position and proceeds in the direction of /u/. The lips are neutral in the beginning and weakly rounded at the end. A centralized back rounded vowel just above the half close position shows the first formant at 600 Hz, the second formant is situated at 1190 Hz and the third formant is at 2390 Hz. Its duration is 220 milliseconds.

6.11.2. The diphthong /ai/

The diphthong /ai/ is a Centralized Back rounded Vowel Just above the half Close position.

Table 12: Distribution of the vowel /ai/

<i>Lambada words in English script</i>	<i>Transcription of Lambada words</i>	<i>Gloss</i>
Aichik	/aitʃik/	Will you come?
Khai	/kʰai/	What?
Bojai	/bodʒai/	Sister-inlaw

The diphthong /ai/ has a larger field of variety than the diphthong /au/. It may commence with front /a/, in which case the first part of the diphthong has a more frontal position than vowel /a/ or long vowel /a:/. In the production of /ai/ there is a glide from the front open position towards /i/; the starting point is retracted in Lambada language. The lips change from a neutral to a loosely spread position. The first formant is placed at 540 Hz, the second formant is situated at 1790 and the third formant is placed at 2470 Hz. The duration of this diphthong is 270 milliseconds.

7. Average of F1, F2 and F3 of Lambada Vowels (Table 13)

The following table shows the approximant three formants of each vowel as uttered by each speaker and the average formant frequencies of the same vowels.

Table 13: Showing the average Formant Frequencies of the Lambada Vowels

Phoneme	Speaker1	Speaker 2	Speaker3	Speaker4	Speaker 5	Average
/i:/	F1-320	F1-285	F1-290	F1-305	F1-310	302
	F2-2400	F2-2270	F2-2390	F2-2135	F2-2135	2266
	F3-3000	F3-2755	F3-2945	F3-2990	F3-2815	2901
/i/	F1-310	F1-280	F1-280	F1-270	F1-305	289
	F2-2100	F2-2166	F2-2270	F2-1880	F2-2010	2085
	F3-3150	F3-2706	F3-2830	F3-2940	F3-2695	2864
/ε/	F1-410	F1-399	F1-410	F1-490	F1-465	434
	F2-2200	F2-1820	F2-1855	F2-1815	F2-1650	1868
	F3-2500	F3-2590	F3-2815	F3-2530	F3-2560	2599
/ε:/	F1-461	F1-365	F1-410	F1-450	F1-410	419
	F2-2380	F2-2020	F2-2080	F2-2055	F2-1830	2073
	F3-2650	F3-2550	F3-2880	F3-2685	F3-2710	2695
/a/	F1-800	F1-500	F1-560	F1-562	F1-560	596
	F2-1600	F2-1550	F2-1610	F2-1600	F2-1610	1594
	F3-2650	F3-2655	F3-2740	F3-2730	F3-2720	2699
/a:/	F1-750	F1-670	F1-750	F1-700	F1-670	708
	F2-1350	F2-1350	F2-1360	F2-1275	F2-1190	1305
	F3-3000	F3-2310	F3-2490	F3-2515	F3-2495	2562
/o/	F1-450	F1-435	F1-475	F1-456	F1-455	454
	F2-950	F2-1005	F2-1060	F2-960	F2-953	985
	F3-2300	F3-2675	F3-2810	F3-2615	F3-2510	2582
/o:/	F1-460	F1-425	F1-430	F1-440	F1-556	462
	F2-950	F2-1010	F2-1070	F2-890	F2-1095	1003
	F3-2300	F3-2724	F3-2740	F3-2415	F3-2375	2510
/u/	F1-350	F1-340	F1-325	F1-270	F1-350	327
	F2-1000	F2-1070	F2-1030	F2-1040	F2-935	1015
	F3-2800	F3-2670	F3-2730	F3-2800	F3-2645	2729
/u:/	F1-400	F1-345	F1-325	F1-330	F1-326	345
	F2-900	F2-970	F2-975	F2-1160	F2-1162	1033
	F3-2800	F3-2680	F3-2720	F3-2430	F3-2435	2613
/au/	F1-600	F1-500	F1-610	F1-555	F1-540	561
	F2-1190	F2-1070	F2-1200	F2-1060	F2-1095	1123
	F3-2390	F3-2570	F3-2460	F3-2320	F3-2450	2438
/ai/	F1-540	F1-400	F1-410	F1-480	F1-455	457
	F2-1790	F2-1960	F2-1965	F2-1650	F2-1735	1820
	F3-2470	F3-2520	F3-2500	F3-2320	F3-2560	2474

8. Conclusion

The primary objective of this study is to find out the inventory of the vowel sounds of Lambada language because there are no more linguistic works on tribal languages till today. It is time to look at those languages before they get endangered by the influence and intrusion of the regional and global languages. I felt a need to work on these tribal languages because of the dearth of research work on these languages. It is my deep desire to contribute to the documentation and preservation of language and making the next generations know the greatness of our linguistic heritage. The list of vowels that have been identified in the research may not be exhaustive but certainly a leap towards a substantial linguistic work in this area. Apart from this paper, there is a wider scope even to work on the consonants in the Lambada language.

References

- [1] Abbi, A. (1997a). *Languages of tribal and indigenous peoples of India: the ethnic space* (Vol. 8). Motilal Banarsidass.
- [2] Abercrombie, D. (1967). *Elements of General phonetics* (Vol. 203). Edinburgh University Press Edinburgh.
- [3] Ayyappan, A. (1948). *Report on the Socio-economic Condition of the Aboriginal Tribes of the Province of Madras*, Government of Madras.
- [4] Bayer, J. M. (2005). *Sociolinguistic Perspectives of Cultural in Transition Indian Tribal Situation*. Ph.D Dissertation.
- [5] Bansal, R. K. (1976). *The Intelligibility of Indian English*. Monograph No. 4.
- [6] Bhukya, B. (2010). *Subjugated Nomads: The Lambadas Under the Rule of the Nizams*. Orient BlackSwan.
- [7] Catford, J. C. (1977). *Fundamental problems in phonetics* (Vol.1). Edinburgh: Edinburgh University Press.
- [8] Chiba, T., & Kajiyama, M. (1941). *The vowel: Its nature and structure*. Tokyo-Kaiseikan.
- [9] Emeneau, M. B. (1996). *Linguistics and Indian Tribal Languages*. Abbi (Edited).
- [10] Ghurye, G. S. (1980). *The scheduled tribes of India*. Transaction Publishers.
- [11] Gimson, A. C. (1970). *An Introduction to the Pronunciation of English*. Edward Arnold.
- [12] Grierson, G. A. (1990). *Linguistic survey of India* (Vol. 1). Low price publications.
- [13] Ishtiaq, M. (1999). *Language shifts among the scheduled tribes in India: A geographical study* (Vol. 1).

- 13). Motilal Banarsidass Publ.
- [14] Karamsi, S. R. (2010). Deconstructing the Caste Hegemony: Lambada Oral Literature. *Journal of Alternative Perspectives in the Social Sciences*, 2(1), 455–467.
- [15] Kumar, K. R. (n.d.). Centre of Advanced Study in Linguistics Osmania University, Hyderabad 500 007.
- [16] Ladefoged, P. (1996). *Elements of acoustic phonetics*. University of Chicago Press.
- [17] Ladefoged, P. (2003). *Phonetic data analysis: An introduction to fieldwork and instrumental techniques*. Wiley-Blackwell.
- [18] Ladefoged, P., & Johnson, K. (2010). *A course in phonetics*. Wadsworth Pub Co.
- [19] Mathur, K. S. (1972). Tribe in India: a problem of identification and integration. *Tribal situation in India*.
- [20] McCombs, C. J. (2006). The acoustic properties of vowels: a tool for improving articulation and comprehension of English. *Forum on Public Policy: A Journal of the Oxford Round Table*.
- [21] Oommen, T. K. (1977). Scheduled castes and scheduled tribes. *Indian Since Independence-Social Report on India-1947-72*. New Delhi: Vikas.
- [22] Rajapurohit, B. B. (1984). *Papers in phonetics and phonology: proceedings of an institute* (Vol. 6). Central Institute of Indian Languages.
- [23] Sinha, S. (1965a). Tribe-caste and tribe-peasant continua in Central India. *Man in India*, 45(1), 57–83.
- [24] Sinha, S. (1965b). Tribe-caste and tribe-peasant continua in Central India. *Man in India*, 45(1), 57–83.
- [25] Srivastava, R. P. (1966). Tribe-caste mobility in India and the case of Kumaon Bhotias. *Caste and Kin in Nepal, India, and Ceylon*. New York: Asia Publishing House.
- [26] Suneetha, R.K. (2010). *Deconstructing the caste Hegemony: "Lambadai Oral Literature"* *Journal of Alternative Perspectives in the Social Sciences* (2010) Vol 2, No 1, 455-467.
- [27] Thapar, R. (1977). *Tribe, caste, and religion in India*. Macmillan Co. of India.
- [28] Verma, M. K. (2001). Language endangerment and Indian languages: An exploration and a critique. *Linguistic structure and language dynamics in South Asia: papers from the proceedings of SALA XVIII Roundtable* (Vol. 15, p. 3).
- [29] Xaxa, V. (1999). Tribes as indigenous people of India. *Economic and Political Weekly*, 3589–3595.
- [30] Yadappanavar, A. V. (2003). *Tribal education in India*. Discovery Publishing House.

English Accent Training classes for all professional students (Engineering, Pharmacy, M.C.A and M.B.A)



Mr. Babi Duli, a Ph.D research scholar at the EFL University, from the Department of Linguistics and Phonetics, School of Phonetics and Spoken English, continuing his research in the area of Forensic Phonetics. He had M.Phil and PGDTE from the EFL University, Hyderabad. He had a master degree from Adikavi Nannaya University, Rajahmundry. He was having experience in teaching Pronunciation. He worked for several prestigious institutions, and trained many students in the area of pronunciation.

Author Profile



Ramachandra Kumar, R. is Research scholar, Ph.D (L&P), doing his research in the area of Phonetics. Completed M.Phil (Linguistics and Phonetics), and Post Graduate Diploma in the Teaching of English (PGDTE) from EFL-University, Hyderabad, and Post Graduation (M.A. English Literature) from Andhra University. Over 5 years of English Language Teaching experience as an Assistant Professor of English. Taught Soft Skills and Conducted