

# FORMANT FREQUENCIES OF JAVANESE ON ENGLISH VOWEL PRODUCTION

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As L1 would influence the acquisition of L2, the so-called interference of L1<sup>1</sup>, the Javanese learners of English, who experience extremely different vowel realization to the native speakers are predicted to have difficulties and occurrences of errors in learning second language sounds. Being part of Indonesian regional language and having dissimilar phonetic and phonological implementation to English, very intriguing questions rise: To what extent does the L2 learners articulate vowels in their second language? Would there be any influence to the production of their L1? It is always remarkable to scrutinize L2 learners' acoustic measurement of the vowel space: F1, which corresponds to vowel height of the articulatory degree and F2, which corresponds to place of articulation.

To fill in the gap of the Javanese learners' success in producing English vowels, the study conducted an experimental design and an acoustic analysis. The experiment of speech production included the recruitment process, the training, and the recording of ten English vowels in a /bVd/ context in a carrier sentence. The recordings were spectrographically segmented and annotated to get the values of the resonating frequencies. The result of Javanese learners of English has surprisingly revealed the deviation of vowel formant frequencies compared to the native English speakers. These major differences essentially appeared in the long vowels, which had lower first and second formants.

**Keywords:** experimental phonetics, second language acquisition, speech production

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<sup>1</sup> Ellis, R. 1997, *Second Language Acquisition*, University Press, Oxford. 51