

Acoustic Characteristics of Hijaiyah Letters Pronunciation by Indonesian Native Speaker

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Abstract : Indonesian people have a mother language but not Arabic. Meanwhile, they must be able to pronounce the Arabic because Islam is the biggest religion in Indonesia. Arabic is composed by hijaiyah letters which has its own pronunciation. Sound production process in humans can be divided into three physiological processes, namely: the formation of airflow from the lungs, the change in airflow from the lungs into the sound, and articulation (the modulation/sound setting into a specific sound). Hijaiyah letters has its own articulation, some of which seem strange for most people in Indonesia. Those letters come out from the middle and upper throat so that the letters has its own acoustic characteristics. Acoustic characteristics of voice can be observed by source-filter approach that has parameters: pitch, formant, and formant bandwidth. Pitch is the basic tone in every human being. Formant is the resonance frequency of the human voice. Formant bandwidth is the time-width of a formant. After recording the sound from 21 subjects, data is processed by software Praat version 5.3.39. The analysis showed that each pronunciation, syakal (vowel changer), and the place of discharge letters has the same timbre which are determined by third and fourth formant.

Keywords : hijaiyah, articulation, pitch, formant, formant bandwidth, timbre

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