

# **EFFECT OF SPEECH TASKS ON INTELLIGIBILITY IN INDIVIDUAL WITH DYSARTHRIA AFTER STROKE: A CASE STUDY IN MALAY LANGUAGE**

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## **ABSTRACT**

This study investigates the effect of three speech tasks (spontaneous speech, repetition and reading) on intelligibility and describes the effect of intensity, word duration, fundamental frequency and breath pause towards speech intelligibility in an individual with dysarthria after stroke. Language samples across the three speech tasks (36 utterances each) were elicited from a dysarthric patient and transcribed by 30 listeners in a cloze test form. The speech samples were analysed using the PRAAT programme. Speech intelligibility score was derived from listening task and was compared across speech tasks while the aspects of speech intelligibility were described acoustically and then compared to overall speech intelligibility using visual analysis. Findings revealed that (1) speech intelligibility in spontaneous speech was significantly poorer than other speech tasks; (2) intensity and fundamental frequency range showed positive contribution to speech intelligibility; (3) word duration may not contribute to speech intelligibility in dysarthria as no obvious pattern was derived from both variables; (4) frequency of breath pause affects the word duration index. The findings of the variability of speech intelligibility and phonetic abilities across speech task suggested that speech production tasks should be an important aspect to look into and consider while assessing and managing a patient with dysarthria post-stroke.

Fong, E.I. 2010. *Effect of Speech tasks on Intelligibility in Individual with Dysarthria After Stroke: A Case Study in Malay Language*. Bachelor of Speech Science Thesis. Universiti Kebangsaan Malaysia.