

## **PERUBAHAN CIRI-CIRI AKUSTIK SUARA SEMASA SESI REHAT SUARA**

Nur Afiqah Abdullah  
Penyelia: Khairy Anuar Mohd Khairuddin

Kajian ini telah dijalankan untuk menyelidik perubahan ciri-ciri akustik suara semasa sesi rehat suara dalam tempoh masa tertentu. Komponen yang telah dikaji termasuklah frekuensi asas, 'jitter', 'shimmer' dan 'harmonic-to-noise ratio'. Peserta yang terlibat terdiri daripada 15 orang pelajar perempuan (berumur 21 hingga 23 tahun) di Universiti Sains Malaysia. Proses pengumpulan data telah dijalankan pada hujung minggu (Jumaat dan Sabtu) bermula pada pukul 9 pagi. Peserta dikehendaki membaca dengan menggunakan suara dalam masa 60 minit untuk meniru proses penggunaan suara dalam tempoh yang lama. Sesi rehat suara telah dijalankan dalam masa 60 minit selepas sesi penggunaan suara. Sebanyak enam sampel suara yang terdiri daripada bunyi /a/ selama 5 saat telah diperolehi bagi setiap peserta. Sampel suara yang telah diambil merupakan sampel suara sebelum sesi penggunaan suara, selepas sesi penggunaan suara dan bagi setiap 15 minit dalam sesi rehat suara. Keputusan menunjukkan bahawa terdapat perubahan pada ciri-ciri akustik suara semasa sesi rehat suara. Terdapat variasi bagi tempoh minima yang diperlukan untuk ciri-ciri akustik suara kembali kepada nilai asal sebelum sesi penggunaan suara.

**Kata kunci:** Ciri-ciri akustik, suara, perubahan, sesi rehat suara

### **THE CHANGES IN ACOUSTIC FEATURES OF VOICE DURING POST-LOADING VOICE REST**

The aim of present study was to investigate the changes in several acoustic features of voice during the post-loading vocal rest intervals. The components of acoustic features which had been investigated include fundamental frequency, jitter, shimmer and harmonic-to-noise ratio. Fifteen female (aged 21 to 23) students of Universiti Sains Malaysia were chosen to be the participants. Data collection processes have been done during the weekends (Friday and Saturday) and started at 9 a.m. The participants were required to do the reading aloud task for 60 minutes to mimic the vocal loading process. Voice rest for 60 minutes had been done after the loading task. Six voice samples consist of /a/ sound for 5 seconds were taken for each subject which consisted of the pre-vocal loading, post-vocal loading, and after each 15 minutes intervals along the 60 minutes of voice rest. The result shows that there were changes in acoustic features of voice during post-loading voice rest. There were variations in minimum duration for the acoustic features to return to the baseline values.

**Key words:** Acoustics features, voice, changes, post-loading voice rest

Abdullah, N.A. 2010. The Changes In Acoustic Features Of Voice During Post-Loading Voice Rest. Bachelor of Health Science (Speech Pathology). Universiti Sains Malaysia