

COMPARISON OF HEARING AID OUTPUT USING 2 CM³ COUPLER AND PROBE MICROPHONE MEASUREMENT IN A CERTAIN AGE GROUP OF CHILDREN

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This study was designed especially to determine whether an average of real ear to coupler differences (RECD) are useful as a correction factor to correcting responses from 2 cm³ coupler to the real ear. RECD was obtained through two different methods, indirect and direct measurement by using Aurical computerized system. 15 children ages 5-6 years served as subjects for this study. A comparison of real ear hearing air output (dB SPL) versus 2 cm³ coupler output (dB SPL) was made to obtain the RECD values. Results showed the mean RECD value increased as a function of frequency. The mean RECD obtained from indirect measurement ranged from -5.27 dB at 250 Hz to 12.87 dB at 6000 Hz. The direct measurement method gave mean differences ranging from -0.7 dB at 250 Hz to 14.33 dB at 6000 Hz. A large intersubject variability suggesting the use of individual real ear or individual RECD measurements as opposed to an average RECD value to determine hearing aid setting to secure appropriate amplification especially in children.

Awang, R. 1999. Comparison of Hearing Aid Output using 2 cm³ Coupler and Probe Microphone Measurement in a Certain Age Group of Children. Bachelor of Audiology Thesis. Universiti Kebangsaan Malaysia.