Thesis Title	Maximum Phonation Time and Vital Capacity in Normal Adult Aged 20 to 40 Years and the Relations Between Maximum Phonation Time and Vital Capacity
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ABSTRACT

The purpose of this study was to obtain normative data of maximum phonation time and vital capacity in 60 normal males and 60 normal females age ranging from 20 to 40 years. The measurement of maximum phonation time was recorded by using a stopwatch. The subject was instructed to take a deep breath and to sustain the vowel /a/ as long as possible at a comfortable pitch. The intensity level was controlled at 60 to 75 decibels as indicated in the v.u.meter. The phonation of /a/ sound was repeated three times. The measurement of vital capacity was analyzed with digital

spirometer (Pony cosmed 13). The subject was instructed to inhale deeply and to exhale by blowing the air through the mouthpiece as much as possible. The task was conducted three times in the sitting position. The longest sustained phonation and the greatest vital capacity measurments were selected for the evaluation. The maximum phonation time in male subjects was 20.43 seconds and in female subjects was 13.76 seconds. The vital capacity in males subjects was 3491.33 ml. and in female subjects was 2428.16 ml. These results indicated that there was a significant difference in maximum phonation time and vital capacity between male subjects and female subjects ($P<0.001$). This present study also investigated the relationship between maximum phonation time and vital capacity. It revealed that there was a significant linear correlation between maximum phonation time and vital capacity ($P<0.01$). The correlation coeffient between maximum phonation time and vital capacity in male subjects was 0.532 and in female subjects was 0.302. The Simple Linear Regressions for the prediction of maximum phonation time in males and females were

MPT(male) = 3.2385+.004(VC)

MPT(female) 8.8791+.002(VC)

The results of this study can be used as a criteria to evaluate and to manage voice disorders in Thai people.