|  |  |  |  |
| --- | --- | --- | --- |
| **Supplementary Table 1: Example of a finished sentence list (List 1)** | | | |
| **Category** | **Test Sentences** | **No. of Chinese Characters** | **No. of Key Words** |
| 2 | 继续 下降 到 三 千 米 保持 | 10 | 7 |
| 2 | 正在 通过 高度 五 百 英尺 | 10 | 6 |
| 12 | 跑道 上空 有 强 降水 | 8 | 5 |
| 1 | 保持 跑道 起飞 航迹 | 8 | 4 |
| 12 | 左 发 起火 | 4 | 3 |
| 1 | 等待 引导车 | 5 | 2 |
| 11 | 修正 海压 幺 洞 洞 八 | 8 | 6 |
| 7 | 目视 五 边 的 空客 飞机 | 9 | 5 |
| 8 | 核实 频率 为 幺 两 五 点 拐 | 10 | 7 |
| 10 | 从 快速 脱离道 Q 五 脱离 | 10 | 6 |
| 6 | 保持 当前 航向 | 6 | 3 |
| 3 | 过 九 百 米 后 直飞 P K | 9 | 8 |
| 7 | 可以 目视 进近 | 6 | 3 |
| 1 | 取消 标准 离场 | 6 | 3 |
| 9 | 风 幺 洞 洞，风速 三 米 | 8 | 7 |
| 5 | 由于 冲突，下降率 两 千 英尺 | 11 | 6 |
| 1 | 取消 延误，可以 开车 | 8 | 4 |
| 3 | 石各庄 东 南 幺 八 海里 | 9 | 6 |
| 8 | 联系 地面 幺 两 幺 点 六 | 9 | 7 |
| 4 | 报告 位置 | 4 | 2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Supplementary Table 2: The mean performance of the 20 sentence lists** | | | | | |
| **List No.** | **a** | **b** | **Slope at 50%** | **Slope from 20% to 80%** | **Threshold** |
| 1 | –4.78 | 0.55 | 13.83 | 5.94 | 8.64 |
| 2 | –4.35 | 0.51 | 12.75 | 6.14 | 8.52 |
| 3 | –4.27 | 0.52 | 12.98 | 3.57 | 8.22 |
| 4 | –3.57 | 0.46 | 11.53 | 3.66 | 7.75 |
| 5 | –2.94 | 0.37 | 9.25 | 2.99 | 7.95 |
| 6 | –3.13 | 0.39 | 9.85 | 3.49 | 7.94 |
| 7 | –3.25 | 0.42 | 10.45 | 4.07 | 7.77 |
| 8 | –3.33 | 0.42 | 10.50 | 5.24 | 7.92 |
| 9 | –3.85 | 0.46 | 11.43 | 3.72 | 8.43 |
| 10 | –3.95 | 0.48 | 12.05 | 4.74 | 8.20 |
| 11 | –3.69 | 0.45 | 11.30 | 4.59 | 8.16 |
| 12 | –3.84 | 0.45 | 11.20 | 5.89 | 8.57 |
| 13 | –3.29 | 0.39 | 9.80 | 2.99 | 8.40 |
| 14 | –3.72 | 0.42 | 10.40 | 2.66 | 8.95 |
| 15 | –4.35 | 0.51 | 12.63 | 5.60 | 8.62 |
| 16 | –4.87 | 0.58 | 14.50 | 7.74 | 8.39 |
| 17 | –4.78 | 0.60 | 14.88 | 4.65 | 8.03 |
| 18 | –2.86 | 0.37 | 9.30 | 3.51 | 7.69 |
| 19 | –2.61 | 0.32 | 7.90 | 4.10 | 8.24 |
| 20 | –3.24 | 0.41 | 10.28 | 4.64 | 7.89 |
| M | –3.73 | 0.45 | 11.34 | 4.50 | 8.22 |
| Min | –4.87 | 0.32 | 7.90 | 2.66 | 7.69 |
| Max | –2.61 | 0.60 | 14.88 | 7.74 | 8.95 |
| Range | 2.26 | 0.28 | 6.98 | 5.08 | 1.26 |
| SD | 0.67 | 0.07 | 1.84 | 1.29 | 0.35 |

a: the regression intercept; b: the regression slope; M: mean; Max: maximum; Min: minimum; SD: standard deviation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Supplementary Table 3: The participants’ characteristics with regard to age, total flight hours, and pure-tone audiometry** | | | | |
| **Characteristics** | **M** | **Minimum** | **Maximum** | **SD** |
| Age (years) | 23.7 | 21 | 26 | 1.4 |
| Total flight hours (h) | 229.6 | 205 | 279 | 27.3 |
| 250 Hz (dB HL) | 10.9 | 5 | 25 | 4.1 |
| 500 Hz (dB HL) | 11.5 | 0 | 20 | 3.6 |
| 1000 Hz (dB HL) | 8.9 | 5 | 15 | 3.1 |
| 2000 Hz (dB HL) | 8.9 | 0 | 20 | 4.9 |
| 3000 Hz (dB HL) | 9.3 | 0 | 15 | 4.9 |
| 4000 Hz (dB HL) | 13.0 | 0 | 25 | 6.1 |
| 6000 Hz (dB HL) | 11.9 | 0 | 30 | 6.9 |
| 8000 Hz (dB HL) | 3.3 | -10 | 20 | 6.5 |
| PTA\* | 10.6 | 6.3 | 16.3 | 2.5 |

\* PTA is the mean value of the thresholds at 500 Hz,1000 Hz, 2000 Hz, and 4000 Hz. dB HL: decibel hearing level; M: mean; PTA: pure-tone audiometry.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Supplementary Table 4: Equivalence verification, based on one-way analysis of variance** | | | | | |
| **Intensity level**  **(dB HL)** | **Type Ⅲ Sum of Squares** | **df** | **Mean Square** | **F** | ***P*** |
| 5 | 5607.333 | 19 | 295.123 | 0.822 | 0.677 |
| 7 | 6149.425 | 19 | 323.654 | 0.553 | 0.930 |
| 9 | 7112.958 | 19 | 374.366 | 0.686 | 0.825 |
| 11 | 4542.758 | 19 | 239.093 | 1.063 | 0.400 |
| 13 | 1040.825 | 19 | 54.780 | 0.595 | 0.902 |
| 15 | 490.167 | 19 | 25.798 | 0.845 | 0.649 |

dB HL: decibel hearing level; df: degree of freedom.