**Developmental changes in articulation rate and phonic groups during narration**

**in French children aged 4 to 11 years**

# ***Supplementary Materials***

# **Statistical details for “Narration time”**

Post-hoc test to compare difference across age groups:

A Kruskal-Wallis H test was run to determine if there were differences in duration of narration time between the six age groups. Distributions of duration of narration time were similar for all groups, as assessed by visual inspection of a boxplot. Median scores of duration of narration were statistically significantly different between groups, χ2(5) = 23.950, p < .001.



# **Statistical details for “Articulation Rate”**

Fischer’s LSD Post-hoc test to compare differences in articulation rate between age groups:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | G1 | G2 | G3 | G4 | G5 | G6 |
| G1 |   |   |   |   |   |   |
| G2 | 0,808 |   |   |   |   |   |
| G3 | 0,099 | 0,061 |   |   |   |   |
| G4 | 0,299 | 0,420 | 0,011 |   |   |   |
| G5 | 0,157 | 0,241 | 0,003 | 0,754 |   |   |
| G6 | 0,010 | 0,019 | 0,000 | 0,134 | 0,207 |   |

# **Statistical details for narration measures (number of clauses, words, syllables and phonic groups)**

Games-Howell Post-Hoc Test :

|  |  |  |
| --- | --- | --- |
| Clauses (nb) |  | Words (nb) |
|   | G1 | G2 | G3 | G4 | G5 | G6 |  |   | G1 | G2 | G3 | G4 | G5 | G6 |
| G1 |   |   |   |   |   |   |  | G1 |   |   |   |   |   |   |
| G2 | 0,332 |   |   |   |   |   |  | G2 | 0,299 |   |   |   |   |   |
| G3 | 0,026 | 0,343 |   |   |   |   |  | G3 | 0,021 | 0,438 |   |   |   |   |
| G4 | 0,017 | 0,338 | 1,000 |   |   |   |  | G4 | 0,009 | 0,342 | 1,000 |   |   |   |
| G5 | 0,004 | 0,058 | 0,897 | 0,839 |   |   |  | G5 | 0,001 | 0,059 | 0,884 | 0,886 |   |   |
| G6 | 0,000 | 0,008 | 0,931 | 0,863 | 0,999 |   |  | G6 | 0,000 | 0,016 | 0,900 | 0,900 | 1,000 |   |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Syllables (nb) |  | Phonic Group (nb) |
|   | G1 | G2 | G3 | G4 | G5 | G6 |  |   | G1 | G2 | G3 | G4 | G5 | G6 |
| G1 |   |   |   |   |   |   |  | G1 |   |   |   |   |   |   |
| G2 | 0,350 |   |   |   |   |   |  | G2 | 0,986 |   |   |   |   |   |
| G3 | 0,023 | 0,422 |   |   |   |   |  | G3 | 0,103 | 0,255 |   |   |   |   |
| G4 | 0,011 | 0,315 | 1,000 |   |   |   |  | G4 | 0,156 | 0,442 | 0,991 |   |   |   |
| G5 | 0,002 | 0,058 | 0,885 | 0,920 |   |   |  | G5 | 0,017 | 0,103 | 1,000 | 0,989 |   |   |
| G6 | 0,000 | 0,027 | 0,918 | 0,951 | 1,000 |   |  | G6 | 0,147 | 0,607 | 0,839 | 0,990 | 0,738 |   |

# **Statistical details for “PG time”**

Fisher’s LSD post hoc test

|  |
| --- |
| Fisher's LSD post hoc |
|   | G1 | G2 | G3 | G4 | G5 | G6 |
| G1 |   |   |   |   |   |   |
| G2 | 0,003 |   |   |   |   |   |
| G3 | 0,004 | 0,923 |   |   |   |   |
| G4 | 0,009 | 0,825 | 0,762 |   |   |   |
| G5 | 0,001 | 0,705 | 0,795 | 0,556 |   |   |
| G6 | 0,000 | 0,021 | 0,037 | 0,015 | 0,047 |   |

# **Statistical details for density measures (number of syllables, words and clauses per phonic group)**

|  |
| --- |
| **Kruskal Wallis Test Results** |
|   | Syllable/PG (nb) | Words/PG (nb) | Clauses/PG (nb) |
| Chi-Square | 37,061 | 30,982 | 29,383 |
| df | 5 | 5 | 5 |
| Asymp. Sig. | 0,000 | 0,000 | 0,000 |

Pairwise Post-hoc test to compare differences of syllable per PG across age groups

Pairwise Post-hoc test to compare differences of words per PG across age groups



Pairwise Post-hoc test to compare differences of clauses per PG across age groups