**Tables**

Table 1. Intensity and dose parameters for trained stimuli by participant

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| f | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** |
| Dose Frequency (i.e., number of training sessions per week) | 2-3 | 2 | 2 | 2 | 3 | 3 | 3 |
| Total intervention duration (i.e., total number of training sessions) | 15 | 6 | 12 | 15 | 13 | 15 | 9 |
| Low-dose cumulative intervention intensity | 600 | 240 | 480 | 600 | 520 | 600 | 360 |
| High-dose cumulative intervention intensity | 2400 | 960 | 1920 | 2400 | 2080 | 2400 | 1440 |
| *Note.* Dose form = confrontation naming of nouns. Active ingredient = independent naming attempt followed by the opportunity to repeat the name of the target following presentation of the orthographic and auditory name of the picture. Low dose = 20 pictures x 2 presentations/picture x 1 opportunity per training session for a total of 40 teaching episodes per training session. High dose = 20 pictures x 2 presentations x 4 opportunities per training session for a total of 160 teaching episodes per training session. | | | | | | | |

Table 2. Participant profiles

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** |
| Age (years) | 90 | 47 | 76 | 78 | 61 | 70 | 67 |
| Gender | F | F | F | F | F | M | M |
| Education (years) | 12 | 16 | 12 | 12 | 12.5 | 12 | 21 |
| Occupation | Homemaker | Marketing | Secretary | County court | Flagger | Forest service | Lawyer |
| Handedness | Right | Right | Right | Right | Right | Right | Right |
| Lesion Information | L MCA | L Temporal Lobe | L Basal Ganglia | L MCA | L MCA | L MCA | Left Hemisphere |
| Time post-onset (months) | 6 | 42 | 18 | 8 | 22 | 10 | 240 |
| Apraxia of Speech | None | None | None | \* | Mild | Moderate | Moderate |
| Receiving concomitant SLP services? | No | No | No | No | Yes | Yes | No |
| *Note*. P= participant; F= female; M= male; L MCA= left middle cerebral artery; SLP= speech-language pathology  Apraxia of speech was measured using the *Apraxia Battery for Adults*, Second Edition (ABA-2)  \*= Did not test | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **P1** | | **P2** | | **P3** | | **P4** | | **P5** | | **P6** | | **P7** | |
| **Measure** | **Pre** | **Post** | **Pre** | **Post** | **Pre** | **Post** | **Pre** | **Post** | **Pre** | **Post** | **Pre** | **Post** | **Pre** | **Post** |
| WAB-R AQ | 73.9 | 61.4 b | 60.2 | 70.8a | 82.8 | 81 | 54.1 | DNT | 76.2 | 79.2a | 37.1 | DNT\* | 59.0 | 66.5a |
| BNT-2 | 10/60 | 14/60a | 5/60 | 10/60a | 27/60 | 24/60 | 12/60 | 14/60a | 28/60 | 45/60a | 0/60 | 3/60a | 27/60 | 52/60a |
| PALPA Subtest 54 | 25/60 | 43/60 | 26/60 | 38/60 | 50/60 | 52/60 | 35/60 | 37/60 | 44/60 | 52/60 | 0/60 | 6/60 | 21/60 | 58/60 |
| WAB-R Aphasia Classification | Anomic | | Wernicke’s | | Anomic | | Conduction | | Anomic | | Global | | Broca’s | |
| Raven’s Progressive Matrices | 18/36 | | 36/36 | | 20/36 | | 18/36 | | 34/36 | | 14/36 | | 26/36 | |
| ABA-2 | No apraxia | | No apraxia | | No apraxia | | \* | | Mild apraxia | | Moderate apraxia | | Moderate Apraxia | |
| BDI-II | 3/63 | | 10/63 | | 18/63 | | 7/63 | | 25/63 | | 8/63 | | 2/63 | |
| Note: WAB-R= Western Aphasia Battery- Revised; AQ= aphasia quotient; BNT-2= Boston Naming Test, Second Edition - Standard Form; PALPA= Psycholinguistic Assessments of Language Processing in Aphasia; ABA-2=Apraxia Battery for Adults, Second Edition; BDI-II=Beck Depression Inventory, Second Edition  \* = Did not test.  aPositive pre- to post-training change ≥ 2 SEM unit (95% confidence interval).  bNegative pre- to post-training change ≥ 2 SEM unit (95% confidence interval). (Milman, Vega-Mendoza, & Clendenen, 2014; Nitko, 1996) | | | | | | | | | | | | | | |

Table 3.Pre- and post-training performance of standardized measures of language, functional communication, and cognition

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** |
| **Baseline Phase** | **Untrained** | 35% (11) | 46% (13) | 83% (12) | 38% (4) | 72% (5) | 0% (0) | 36% (7) |
| **Trained** | 41% (5) | 60% (8) | 90% (5) | 47% (6) | 62% (20) | 0% (0) | 41% (2) |
| **1 trial/session** | 43% (11) | 61% (9) | 94% (3) | 50% (6) | 48% (34) | 0% (0) | 36% (6) |
| **4 trials/session** | 39% (3) | 58% (9) | 85% (9) | 44% (45) | 77% (21) | 0% (0) | 44% (9) |
| **Training Phase** | **Untrained** | 34% (5) | 35% (21) | 79% (8) | 34% (14) | 72% (8) | 3% (6) | 55% (10) |
| **Trained** | 70% (8) | 93% (10) | 95% (4) | 54% (9) | 94% (2) | 5% (3) | 80% (7) |
| **1 trial/session** | 66% (13) | 94% (6) | 96% (4) | 61% (14) | 93% (6) | 4% (3) | 80% (6) |
| **4 trials/session** | 74% (10) | 91% (14) | 94% (6) | 46% (9) | 93% (6) | 4% (5) | 80% (10) |
| **Maintenance Phase** | **Untrained** | 32% (12) | 43% (13) | 70% (8) | 40% (13) | 72% (12) | 7% (4) | 59% (3) |
| **Trained** | 78% (1) | 94% (4) | 90% (5) | 60% (3) | 94% (4) | 13% (8) | 86% (5) |
| **1 trial/session** | 70% (10) | 93% (8) | 90% (0) | 65% (0) | 93% (6) | 13% (8) | 85% (5) |
| **4 trials/session** | 87% (8) | 97% (3) | 90% (10) | 55% (5) | 95% (5) | 13% (10) | 87% (14) |
| *Note:* ( ) = standard deviation | | | | | | | | |

Table 4. Means and standard deviations of naming accuracy across phases and participants

Table 5.Inter-rater reliability across participants

|  |  |
| --- | --- |
| **Participant** | **Cohen’s Kappa** |
| P1 | 0.89 |
| P2 | 0.86 |
| P3 | 0.95 |
| P4 | 0.67 |
| P5 | 0.92 |
| P6 | 0.95 |
| P7 | 0.99 |
| Mean | 0.89 |
| *Note*: Cohen’s Kappa  Fleis, Levin, & Paik (2003) | |

Table 6. Effect sizes\* for naming accuracy of trained and untrained items and by dose for PWA

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** |
| **Trained Stimuli** | Effect Size (d**)** | 7.30 | 4.19 | 0.12 | 2.31 | 1.62 | \*\* | 29.33 |
| Size Relative to Benchmark | Medium | Small | No Change | No Change | No Change | \*\* | Large |
| **Untrained Stimuli** | Effect Size (d) | -0.13 | -0.22 | -0.92 | 0.38 | -0.04 | \*\* | 14.53 |
| Size Relative to Benchmark | No Change | No Change | No Change | No Change | No Change | \*\* | Large |
| **Low-Dose Condition** | Effect Size  (d) | 2.89 | 3.54 | -1.5 | 1.83 | 1.63 | \*\* | 8.79 |
| Size Relative to Benchmark | No Change | Small | No Change | No Change | No Change | \*\* | Medium |
| **High-Dose Condition** | Effect Size (d) | 19.1 | 4.53 | 0.56 | 2.34 | 0.86 | \*\* | 18.78 |
| Size Relative to Benchmark | Large | Small | No Change | No Change | No Change | \*\* | Large |
| \*Effect size= Busk & Serlin’s d (d= MA2-MA1/SDA1)  \*\* P6 began with a baseline of 0; as such, unable to calculate effect size | | | | | | | | |