Results: Treatment Intensity—Naming task (final): Percentage of children responding to treatment

Similar to Supplemental Figures S1 and S2, Supplemental Figure S3 provides block-by-block data for each treatment intensity. However, rather than showing data from the definition task, Supplemental Figure S3 shows data from the naming task administered at the last treatment session. Data from the naming task are examined to once again provide converging evidence of the adequate treatment intensity. Supplemental Figure S3 shows the percent of children responding to the treatment based on a post-treatment naming score of 4 or higher for treated words.

Supplemental Figure S3. Percent of children responding to the treatment based on naming data (i.e., post-treatment naming score of 4 or higher for treated words) for each treatment intensity (12, 24, 36, 48) by enrollment block. The trendline illustrates the polynomial trend also depicted by the regression equation noted in each panel.

Pattern 1: Percent of children responding to intensity 12 & 24 is similar but increases as intensity increases to 36 & 48 (which are similar to each other)

In block 1, none of the children in intensity 12 or 24 responded to treatment. In contrast, the children in intensity 36 and 48 responded to treatment based on naming data. This pattern was replicated in block 2 with fewer children responding to treatment in intensity 12 and 24 and more children responding to treatment in intensity 36 and 48. Thus, within the first two blocks there was evidence that 36 and 48 exposures was more beneficial than 12 and 24 exposures.
Pattern 2/Final Pattern: Percent of children responding to intensity 12 & 24 is similar but increases as intensity increases to 36 and then decreases at intensity 48.

In block 3, 33% of children responded to treatment in intensity 12. As intensity increased to 24 exposures, response to treatment remained the same with 33% of children responding to treatment. In contrast, as intensity increased from 24 to 36 exposures, the percent of children responding to treatment increased from 33% to 100%. As intensity increased from 36 to 48 exposures, there was no further increase in the percent of children responding to treatment. In fact, the percent of children responding to treatment fell from 100% to 67%. In general, this pattern was replicated across all remaining blocks. Generally, the percent of children responding to treatment was relatively similar across 12 and 24 exposures and then increased from 24 to 36 exposures. The percent of children responding to treatment then decreased as exposures increased further from 36 to 48 exposures. This final pattern for the naming data converges with the patterns observed for the definition data.

Block 5: 5 Children Per Intensity

$y = -0.05x^2 + 0.31x + 0.25$
$R^2 = 0.1474$

Block 6: 6 Children Per Intensity*

*Exception: Intensity 12 = 5 Children

$y = -0.0167x^2 + 0.1367x + 0.4333$
$R^2 = 0.2604$

Block 7: 7 Children Per Intensity*

*Exception: Intensity 12 = 5 Children

$y = -0.0286x^2 + 0.2057x + 0.3857$
$R^2 = 0.4548$

Block 7*: 7 Children Per Intensity*

*Exceptions: Intensity 12 = 5 Children; Intensity 24 = 8 Children

$y = -0.042x^2 + 0.2673x + 0.3455$
$R^2 = 0.5818$