

Supplemental Material S3 shows percentile scores on clinical tests and the percentage of children scoring at or below the 10th percentile in each of the four treatment arms. Each variable also includes a Kruskal-Wallis test. None of the variables showed a significant effect for treatment arm, indicating no significant differences between children in the different treatment arms. The probability of an effect for treatment arm for the GFTA approached significance ($p = .088$). The trend was for children in treatment arm 3 (4-9 x 6-6 treatment schedules) to have lower GFTA percentile ranks on average compared to children in treatment arms 1, 2, and 4. As articulation skill was not the focus of this study and is not expected to be linked to word learning, this difference is not concerning. Overall, this analysis of test score data suggest that children in each treatment arm had similar language skills even though they differed on demographic characteristics. Thus, we consider the treatment arms to be relatively well matched on the skills most likely to influence treatment outcomes.

Supplemental Material S3. *Percentile scores for participants in each treatment arm on standardized clinical tests.*

Standardized clinical test		Arm 1: 6x6 – 9x4 (n = 8)	Arm 2: 9x4 – 6x6 (n = 9)	Arm 3: 4x9 – 6x6 (n = 9)	Arm 4: 6x6 – 4x9 (n = 8)
Age (years;months) $\chi^2 (3, N = 34) = 5.18, p = .16$	<i>M</i>	5;5	5;8	5;8	5;4
	<i>SD</i>	0;3	0;4	0;4	0;4
	Range	5;0-5;8	5;0-6;2	5;0-6;2	5;1-6;1
RIAS Nonverbal IQ $\chi^2 (3, N = 34) = 2.59, p = .46$	<i>M</i>	56	53	47	64
	<i>SD</i>	19	28	21	22
	Range	23-82	16-93	21-81	34-95
	% at or below 10 th percentile	0%	0%	0%	0%
CELF Core Language $\chi^2 (3, N = 34) = 0.48, p = .92$	<i>M</i>	2	2	1	4
	<i>SD</i>	3	3	2	4
	Range	0.1-8	0.1-10	0.1-5	0.2-10
	% at or below 10 th percentile	100%	100%	100%	100%
Vocabulary: DELV Semantic $\chi^2 (3, N = 34) = 0.35, p = .95$	<i>M</i>	6	9	4	6
	<i>SD</i>	8	16	3	12
	Range	1-25	0.4-50	0.1-9	1-37
	% at or below 10 th percentile	88%	78%	100%	88%
Vocabulary: CELF Word Classes $\chi^2 (3, N = 34) = 1.35, p = .72$	<i>M</i>	23	12	15	18
	<i>SD</i>	26	16	21	22
	Range	0.4-75	0.1-50	0.1-63	0.4-63
	% at or below 10 th percentile	50%	78%	67%	63%
CELF Concepts & Following Directions $\chi^2 (3, N = 34) = 0.95, p = .81$	<i>M</i>	6	5	4	8
	<i>SD</i>	12	5	4	9
	Range	0.4-37	0.1-16	0.1-9	0.1-25
	% at or below 10 th percentile	88%	89%	100%	75%

CELF Word Structure $\chi^2 (3, N = 34) = 4.49, p = .21$	<i>M</i>	4	4	4	8
	<i>SD</i>	6	5	5	7
	Range	0.2-16	1-16	0.1-16	0.4-25
	% at or below 10 th percentile	88%	89%	89%	88%
CELF Recalling Sentences $\chi^2 (3, N = 34) = 1.88, p = .60$	<i>M</i>	4	4	9	7
	<i>SD</i>	6	5	16	13
	Range	0.1-16	0.4-16	0.1-50	0.1-37
	% at or below 10 th percentile	88%	89%	78%	88%
CELF Formulating Sentences $\chi^2 (3, N = 34) = 4.54, p = .21$	<i>M</i>	6	6	5	7
	<i>SD</i>	5	9	8	5
	Range	0.1-16	0.1-25	0.1-25	0.4-16
	% at or below 10 th percentile	88%	78%	89%	88%
CELF Understanding Spoken Paragraphs	<i>M</i>	9	6	7	11
	<i>SD</i>	10	8	6	7
	Range	2-25	0.4-25	0.1-16	1-25
	% at or below 10 th percentile	75%	89%	78%	75%
CTOPP Nonword Repetition $\chi^2 (3, N = 34) = 3.55, p = .31$	<i>M</i>	12	7	16	24
	<i>SD</i>	13	7	24	32
	Range	1-37	1-25	1-63	1-75
	% at or below 10 th percentile	63%	89%	78%	50%
CTOPP Phonological Memory $\chi^2 (3, N = 34) = 1.21, p = .75$	<i>M</i>	6	6	12	17
	<i>SD</i>	8	6	15	24
	Range	1-21	1-21	1-37	1-68
	% at or below 10 th percentile	75%	89%	67%	50%
CTOPP Phonological Awareness $\chi^2 (3, N = 34) = 3.19, p = .36$	<i>M</i>	4	7	7	8
	<i>SD</i>	3	7	7	6
	Range	1-9	2-25	1-21	3-14
	% at or below 10 th percentile	100%	89%	67%	50%
GFTA $\chi^2 (3, N = 34) = 6.55, p = .09$	<i>M</i>	32	30	14	31
	<i>SD</i>	23	27	19	20
	Range	1-58	10-78	1-59	1-55
	% at or below 10 th percentile	13%	11%	56%	13%