

## DATA COLLECTION

Supplemental Table S1

*Classroom information*

<b>Teachers</b>	<b>Ratio<sup>a</sup></b>	<b># Children</b>	<b># Boys</b>	<b># Girls</b>	<b># Minority</b>	<b># DLL</b>	<b># IEP</b>	<b># Private services<sup>b</sup></b>
Mary <sup>c</sup> Carl	1:8	18	10	8	7	1	2	0
Kris <sup>c</sup> Leah	1:6	18	8	10	7	4	1	2

*Note.* <sup>a</sup>typical ratio of adults to children; <sup>b</sup>refers to children that received speech, occupational therapy, physical therapy, or hearing and vision services privately; <sup>c</sup>indicates lead teacher in classroom; DLL=dual language learner, IEP=child has an individualized education plan

## DATA COLLECTION

### Supplemental Table S2

#### *Participating teacher information*

	<b>Mary</b>	<b>Kris</b>	<b>Carl</b>	<b>Leah</b>
Age (yr)	26	40	28	29
Sex	F	F	M	F
Ethnicity	Caucasian	Caucasian	Caucasian	Asian
# years working as lead teacher	4	13	0	0
# years working in early childhood classrooms	8	17	4	4

## DATA COLLECTION

Supplemental Table S3

*Participating child information*

<b>Child</b>	<b>Assigned teacher</b>	<b>Age (m)</b>	<b>Gender</b>	<b>Ethnicity</b>	<b>DLL</b>	<b>Evaluated<sup>a</sup></b>	<b>Private services<sup>b</sup></b>	<b>Child assignment</b>	<b>Area qualified</b>
1	Mary	52	F	Caucasian	No	No	No	Acquisition	PA and ER
2	Mary	51	M	Caucasian	No	No	No	Acquisition	Premath
3	Mary	49	M	Multi-ethnic	No	No	No	Generalization	Concepts
4	Kris	39	M	Caucasian	No	Yes	Yes	Acquisition	Premath
5	Kris	39	M	Caucasian	No	No	No	Acquisition	Concepts
6	Kris	39	F	Caucasian	No	Yes	Yes	Generalization	PA and ER
7	Carl	55	F	Hispanic	Yes	No	No	Acquisition	PA and ER
8	Carl	57	F	Multi-ethnic	No	No	No	Acquisition	Concepts
9	Carl	57	F	Multi-ethnic	No	No	No	Generalization	Premath
10	Leah	46	F	Asian	Yes	No	No	Acquisition	PA and ER
11	Leah	47	F	Multi-ethnic	No	No	No	Acquisition	Concepts
12	Leah	41	F	Asian	Yes	No	No	Generalization	Premath

*Note.* <sup>a</sup>indicates if the child has ever been referred or evaluated for early intervention or special education services; <sup>b</sup>child received speech, occupational therapy, physical therapy, or hearing and vision services privately; Multi-ethnic=child was from a family in which the parents were different ethnicities; DLL=dual language learner, PA and ER=Phonological Awareness and Emergent Reading

## DATA COLLECTION

Supplemental Table S4

*Child behaviors and target pieces of information*

<b>Child</b>	<b>Behavior</b>	<b>Targets</b>	<b>Example</b>
1	Expressive labeling of letter sounds	A, B, D, E, L, N, R, U, V, Y	What sound does that letter make?
2	Expressive labeling of numerals	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	What number is that?
3	Receptive creation of spatial relations	between, back of, under, middle, beside	Put the bird between the towers.
4	Counting objects	4, 5, 6, 7, 8	How many cars are there?
5	Expressive labeling of colors and shapes	circle, triangle, square, heart, star, green, yellow, red, purple, pink	What shape is that?
6	Receptive identification of letters	A, C, E, G, K, L, O, R, S, T	Which one is letter T?
7	Expressive labeling of letters	A, B, C, D, E, L, P, S, T, U	What letter is that?
8	Receptive identification of qualitative and quantitative concepts	sour, rough, bumpy, smooth, sweet, spicy, lots, empty, few, couple	Which one is bumpy?
9	Expressive labeling of numerals	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	What number is that?
10	Expressive labeling of letters	D, E, G, I, M, N, P, S, R, U	What letter is that?
11	Expressive labeling of colors and shapes	triangle, square, rectangle, diamond, orange, brown, purple, gray, white, black	What color is that?
12	Receptive identification of numerals	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Which one is number 4?

*Note.* Bold indicates procedures rated as *essential* by all raters

## DATA COLLECTION

Supplemental Table S5

*Interobserver agreement information for teacher-directed behavioral observation procedures*

Teacher	Child	Condition		
		<b>Probe</b>	<b>Teacher Training</b>	<b>Maintenance</b>
Mary	1	93.3 / 25	90.0 / 50	96.7 / 57
	2	86.7 / 25	86.7 / 50	88.3 / 57
	3	93.3 / 25	80.0 / 50	88.3 / 57
Kris	4	93.2 / 75	85.7 / 25	100 / 50
	5	91.1 / 75	100 / 25	100 / 25
	6	91.1 / 75	100 / 25	100 / 33
Carl	7	90.0 / 50	100 / 25	93.3 / 33.3
	8	93.3 / 25	100 / 25	100 / 50
	9	93.3 / 40	86.7 / 25	100 / 33.3
Leah	10	100 / 50	93.3 / 25	100 / 33.3
	11	93.3 / 50	100 / 25	100 / 33.3
	12	88.9 / 50	86.7 / 25	93.3 / 33.3

*Note.* First number in a cell is the average reliability percentage among data collectors and the second number is the percentage of sessions in which reliability data were collected

## DATA COLLECTION

Supplemental Table S6

*Interobserver agreement information for durations of teacher training activities*

Teacher	Child	Condition		
		Probe	Teacher Training	Maintenance
Mary	1	100 / 87.5 / 25	100 / 100 / 25	66.7 / 73.3 / 29
	2	100 / 75.0 / 25	100 / 100 / 25	83.3 / 87.5 / 29
	3	100 / 100 / 25	100 / 100 / 25	100 / 100 / 29
Kris	4	100 / 100 / 25	100 / 92.9 / 25	83.3 / 77.5 / 50
	5	100 / 100 / 25	100 / 87.5 / 25	83.5 / 92.9 / 50
	6	100 / 100 / 25	100 / 91.7 / 25	100 / 93.8 / 67
Carl	7	100 / 100 / 25	83.3 / 89.9 / 50	100 / 100 / 67
	8	83.3 / 89.2 / 50	100 / 93.75 / 50	100 / 100 / 50
	9	100 / 79.1 / 40	100 / 95.0 / 50	100 / 87.5 / 33
Leah	10	100 / 91.7 / 50	66.7 / 100 / 25	100 / 100 / 33
	11	100 / 81.2 / 50	100 / 100 / 25	100 / 60.0 / 33
	12	100 / 100 / 50	100 / 75.0 / 25	100 / 66.7 / 33

*Note.* First number in a cell is the average reliability percentage among data collectors, second number is the average percentage of total duration agreements, and third number is the percentage of sessions for which reliability data were collected

## DATA COLLECTION

Supplemental Table S7

*Procedural fidelity information for trainer behaviors*

Teacher	Child	Condition		
		<b>Probe</b>	<b>Teacher Training</b>	<b>Maintenance</b>
Mary	1	100 / 25	96.7 / 25	96.7 / 29
	2	100 / 25	96.7 / 25	96.7 / 29
	3	100 / 25	100 / 25	100 / 29
Kris	4	100 / 25	96.7 / 25	96.7 / 50
	5	96.7 / 25	96.7 / 25	96.7 / 50
	6	100 / 25	100 / 25	98.3 / 67
Carl	7	93.3 / 25	96.7 / 50	98.3 / 67
	8	96.7 / 50	100 / 50	96.7 / 50
	9	98.3 / 40	96.7 / 50	96.7 / 33
Leah	10	100 / 33	93.3 / 25	96.7 / 33
	11	98.3 / 33	93.3 / 25	96.7 / 33
	12	96.7 / 33	93.3 / 25	96.7 / 33

*Note.* First number in a cell is the average procedural fidelity and the second number is the percentage of sessions in which procedural fidelity data were collected

# DATA COLLECTION

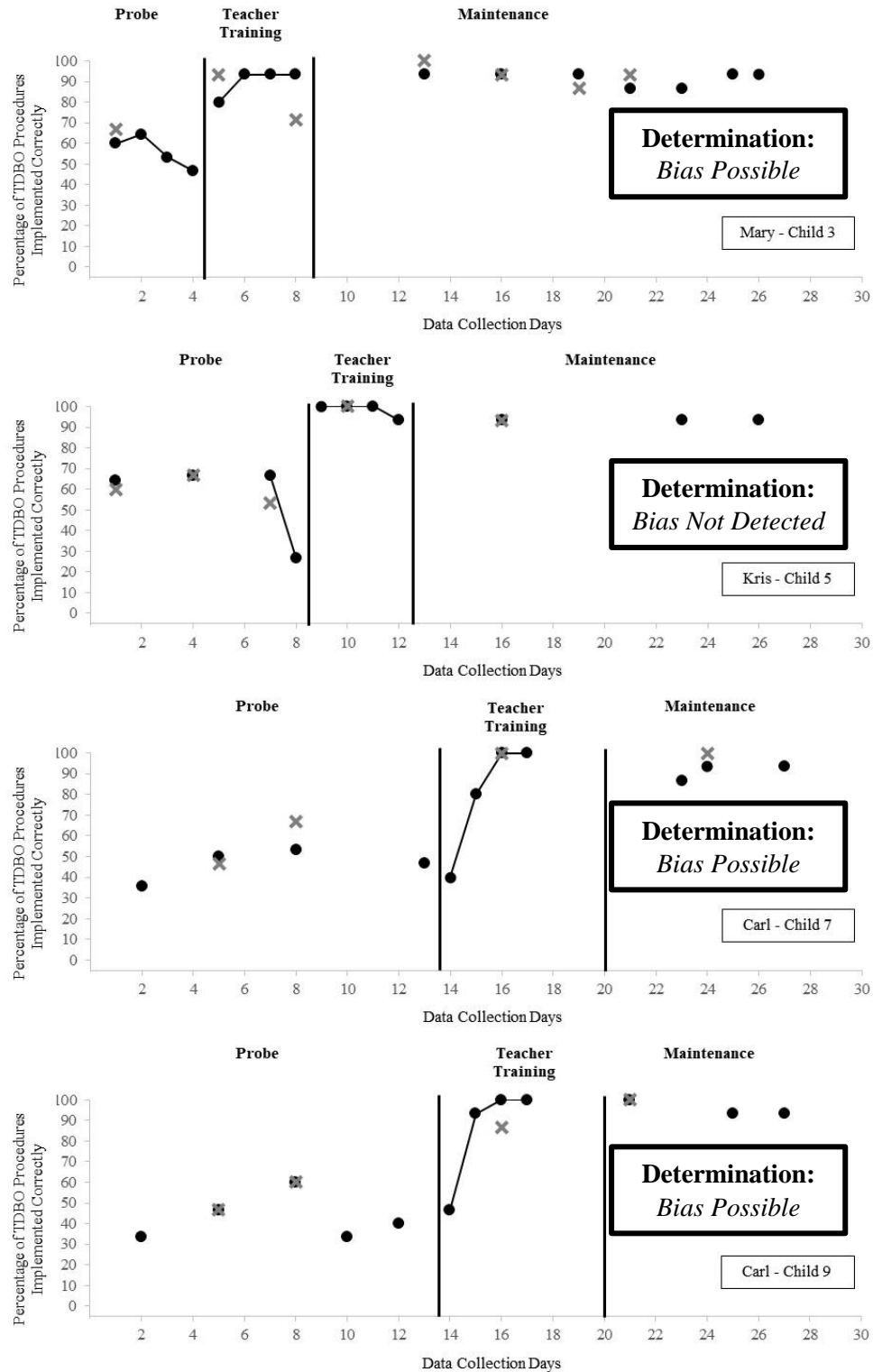
Supplemental Table S8

*Durations in minutes of teacher training activities during the teacher training condition*

Teacher	Child	Activity				Total
		Video Overview	Waiting	Direct Observation	Feedback	
Mary	1	0	12	6	7	25
	2	0	6	7	5	15
	3	3	8	6	0	17
	Total	3	26	19	12	60
	Mean	1	9	6	4	19
Kris	4	0	12	10	13	35
	5	0	10	13	11	34
	6	2	7	13	0	20
	Total	2	29	36	24	89
	Mean	1	10	12	8	30
Carl	7	3	15	8	22	45
	8	0	45	14	9	68
	9	0	26	7	0	33
	Total	3	86	29	31	146
	Mean	1	29	10	10	49
Leah	10	0	21	11	8	40
	11	2	7	8	8	23
	12	0	25	10	0	35
	Total	2	53	29	16	98
	Mean	1	18	10	5	33
Total duration across all children		10	194	113	83	393
Mean duration across teachers		3	49	28	21	98
Mean duration across children		1	16	9	7	33

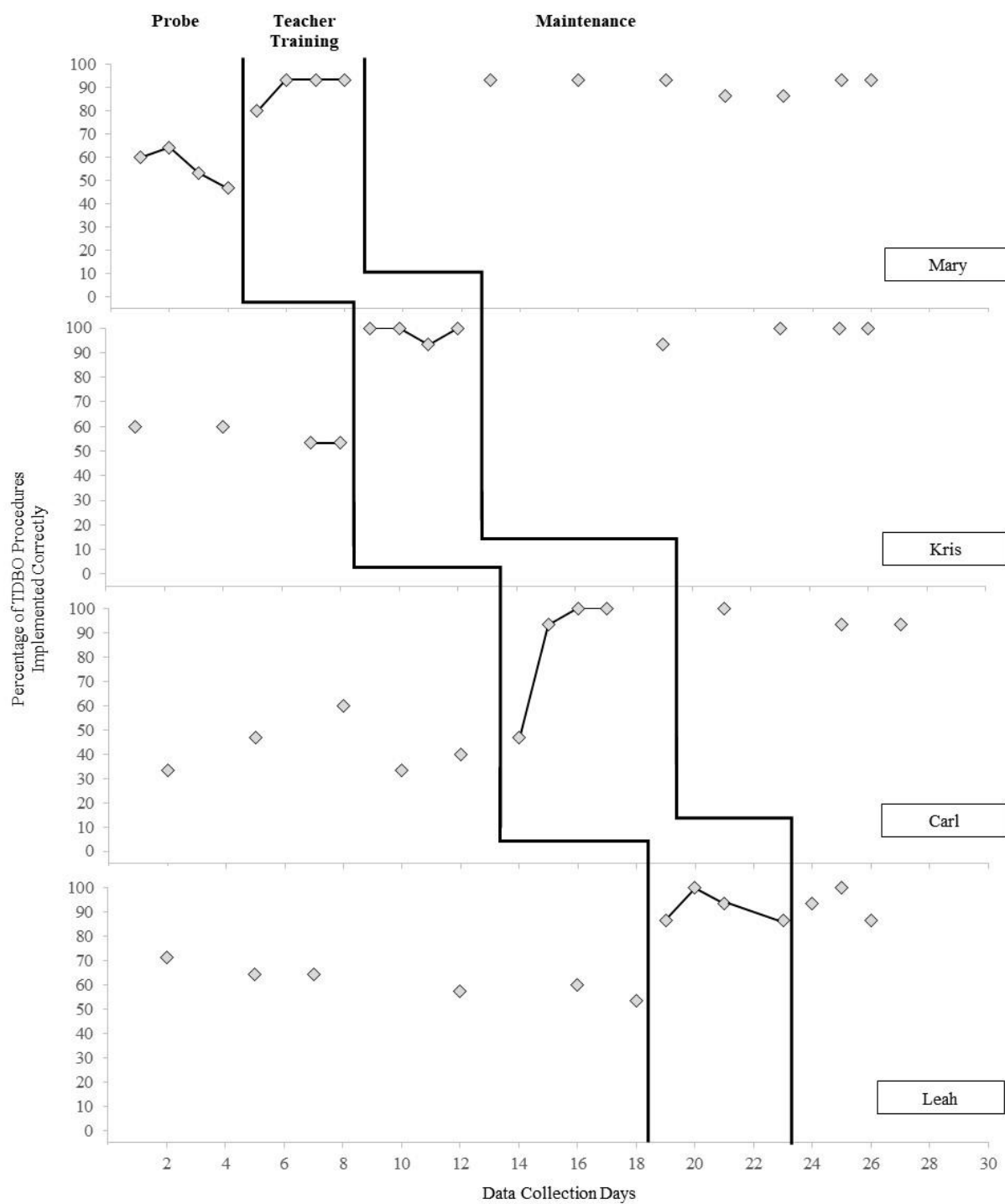
*Note.* All teachers received 12 sessions in the teacher training condition (i.e., 4 sessions with each child)

## DATA COLLECTION



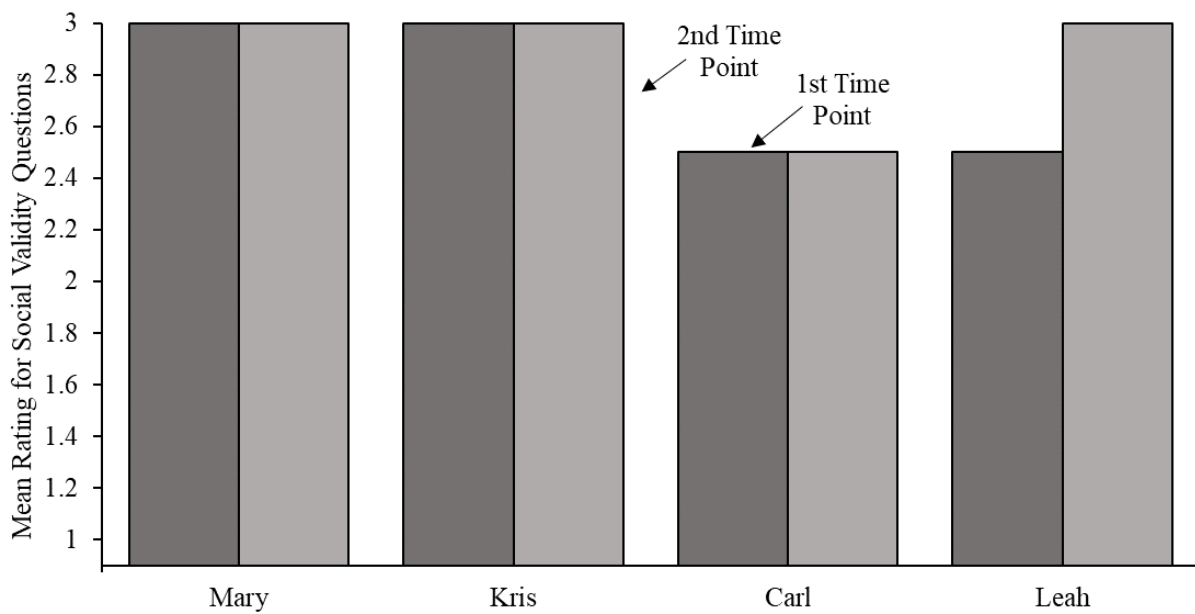
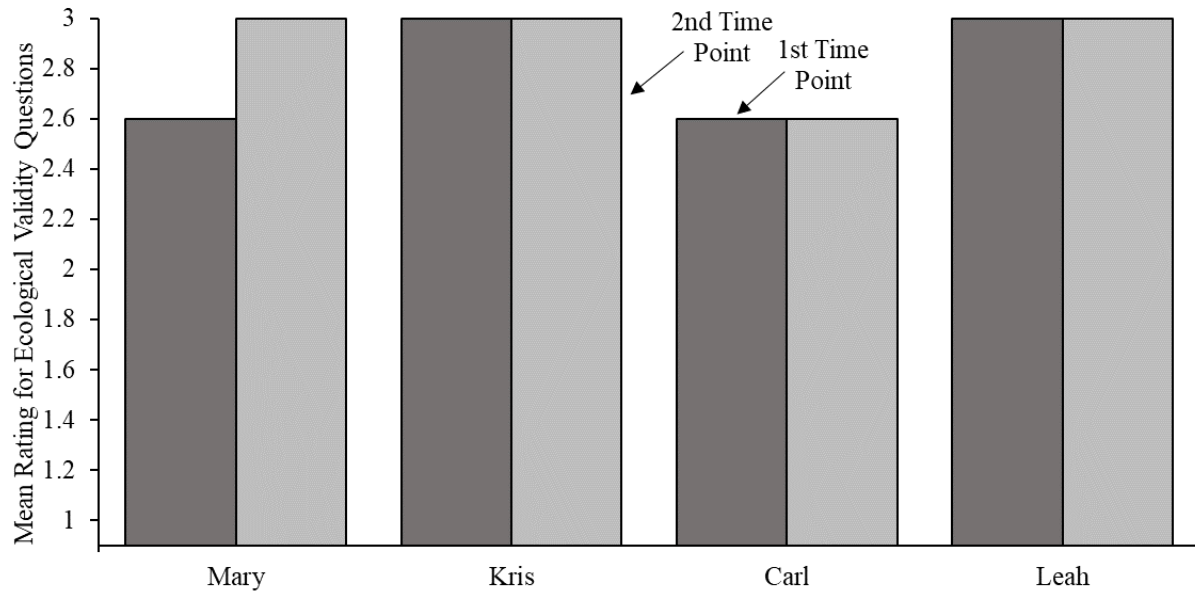
*Supplemental Figure S1.* Examples of graphic displays analyzed for observer bias; primary data (non-blinded) depicted as circles and secondary data (blinded) depicted as Xs

## DATA COLLECTION



Supplemental Figure S2. Graphic display of teacher data with generalization children

## DATA COLLECTION



*Supplemental Figure S3.* Teacher rating across time points on social and ecological validity questionnaires.