

Supplemental Material S1. Mean of baseline, intervention phase, and effect size measures.

a. Mean of baseline and intervention phase and effect size measures of VBI with additional components

Outcome measure	Study Id	Outcome measures at different time points of assessment				Effect size measures		
		Baseline phase (mean)	Intervention phase (mean)	Maintenance phase (mean)	Generalization phase (mean)	PEM	PND	PAND
Participant 1 Serving phrase	Bross et al., (2019)	15.6	95.7	-	-	1	1	1
Participant 1 Total questions asked by participants	Detar & Vernon (2020)	3.25	10.75	-	-	1	1	1
Participant 2 Total questions asked by participants		2.71	8.25	-	-	1	1	1
Participant 3 Total questions asked by participants		1.625	9.25	-	-	1	1	1
Participant 1 Total questions asked by conversational partner		35.25	16	-	-	1	1	1
Participant 2 Total questions asked by conversational partner		25.4	11.25	-	-	1	1	1
Participant 3 Total questions asked by conversational partner		13.8	8	-	-	1	1	1
Participant 1 Perseverative discussion		50.25	20.25	-	-	1	1	1
Participant 2 Perseverative discussion		82.14	38.7	-	-	1	1	1
Participant 3 Perseverative discussion		86.3	62.5	-	-	0.5	0.5	0.83
Participant 1 Conversational pauses		3	1	-	-	1	1	1
Participant 2 Conversational pauses		1.85	0	-	-	1	1	1
Participant 3 Conversational pauses		3	2.5	-	-	0.5	0.5	0.83
Participant 1 Candyland	Ezzeddine et al., (2020)	0	73.3	90	90	0.91	0.91	0.94
Participant 2 Candyland		0	57.5	90	90	0.91	0.91	0.94
Participant 1 Memory		0	72.5	90	80	1	1	1
Participant 2 Memory		0	58	90	90	1	1	1
Participant 3 Memory		0	52.6	90	90	0.93	0.93	0.94
Participant 4 Memory		0	70	70	90	0.96	0.96	0.96

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		Baseline phase (mean)	Intervention phase (mean)	Maintenance phase (mean)	Generalization phase (mean)	PEM	PND	PAND
Participant 5 Memory		0	54.7	90	90	0.84	0.84	0.87
Participant 6 Memory		0	49.1	90	80	0.75	0.75	0.79
Participant 1 Fruit ninja		0	81.8	90	100	1	1	1
Participant 2 Fruit ninja		0	64.5	100	100	1	1	1
Participant 3 Fruit ninja		0	69	90	90	1	1	1
Participant 4 Fruit ninja		0	61.6	90	90	1	1	1
Participant 5 Fruit ninja		0	84.1	100	100	1	1	1
Participant 6 Fruit ninja		0	80.8	100	90	1	1	1
Participant 3 Zingo		0	73.8	90	90	1	1	1
Participant 4 Zingo		0	73.8	80	90	1	1	1
Participant 5 Zingo		0	68.4	80	80	1	1	1
Participant 6 Zingo		0	62.5	80	80	0.96	0.96	0.97
Participant 1 Appropriate Interjections	Galligan, et al., (2020)	30	80.4	-	-	0.91	0.91	0.93
Participant 1 Missed opportunity to elaborate	Hurwitz et al., (2019)	8.4	2.7	1.3	-	1	0.33	0.66
Participant 2 (missed opportunity to elaborate)		4.2	1.1	0.6	-	0.94	0.9	0.93
Participant 4 (Ask personal question)		2.75	5.4	7.3	-	0.93	0.28	0.54
Participant 1 Verbal engagement with games	Jung, & Sainato (2015)	7.5	33.3	35	-	1	1	1
Participant 2 Verbal engagement with games		12.1	46	70	-	1	1	1
Participant 3 Verbal engagement with games		2.9	14	14	-	1	1	1
Participant 1 Verbal social engagement in the novel games		15	36.3	40	-	1	1	1
Participant 2 Verbal social engagement in the novel games		10	17.5	42.5	-	1	1	1

Supplemental material, Mohanan et al., “Effectiveness of Video-Based Instruction With Additional Components to Improve Conversational Skills in Autistic Children: A Systematic Review,” *AJSLP*, https://doi.org/10.1044/2025_AJSLP-24-00301

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		Baseline phase (mean)	Intervention phase (mean)	Maintenance phase (mean)	Generalization phase (mean)	PEM	PND	PAND
Participant 3 Verbal social engagement in the novel games	Kocaoz, et al., (2019)	0	2.5	7.5	-	1	1	1
Participant 1 Initiating/conversation		3	93.3	90	-	1	1	1
Participant 2 Initiating/conversation		3	96.6	100	-	1	1	1
Participant 1 Contingent response	Litras et al (2010)	6.5	63.7	82.5	-	0.9	1	0.9
Participant 1 Contingent response (generalization)		17.5	58.2	100	-	0.2	1	0.85
Participant 5 Latency in social initiation	Nikopoulos & Keenan (2003)	300	154.6	10	300	0	0.8	0.9
Participant 6 Latency in social initiation		300	164	0	300	0	0.8	0.8
Participant 1	Ogilvie & Dieker (2010)	1.5	4.1	-	-	0.96	0.96	0.97
Participant 2		2.1	3.1	-	-	0	1	0
Participant 3		1.1	1.8	-	-	0	0.77	0
Participant 5 (Initiates comments)	Scattone (2007)	8.7	9.1	19	-			
Participant 1 Extending conversation	Stauch et al., (2018)	20	86.4	95	100	1	1	1
Participant 3 Extending conversation		0	70	95	100	1	1	1
Subject 4 Extending conversation		6.6	83.3	100	100	1	1	1
Subject 1 Joining conversation		0	93.3	80.8	100	1	1	1
Subject 3 Joining conversation		0	87.1	94.1	0	1	1	1
Subject 4 Joining conversation		0	91.4	92.8	0	1	1	1

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Outcome measure	Study Id	Outcome measures at different time points of assessment				Effect size measures		
		Baseline phase (mean)	Intervention phase (mean)	Maintenance phase (mean)	Generalization phase (mean)	PEM	PND	PAND
Participant 2 (Initiates comments)	Thiemann & Goldstein (2001)	8	15.7	27.5	3.3	0	1	0.7
Participant 3 (Initiates comments and requests)		13.6	31	24.4	15	0.5	1	0.8
Participant 3 (Contingent responses)		14.1	18	-	17	0	1	0
Participant 4 (Initiates comments and requests)		3	15.1	11.6	16	0.9	1	0.9
Participant 4 (Contingent responses)		4.6	25.8	15	9.6	1	1	1
Participant 5 (initiate comments)		8.5	15	17.5	-	0	0.7	0

Outcome measure	Study Id	Outcome measures at different time points of assessment															
		Baseline phase (mean)		Intervention phase - 1 (mean)		Intervention phase - 2 (mean)		Comparator 1		Comparator 2		Comparator 3		Comparator 4		Maintenance phase (mean)	Generalization phase (mean)
		I	R	I	R	I	R	I	R	I	R	I	R	I	R		
Participant 1 Play doh – initiations/responses		9.2	2.4	22.6	6.7	-	-	22.7	3.2	-	-	-	-	-	-	30	9.3
Participant 1 (chevron cars)- total response score		-	13.1	-	26.3	-	41	-	14.8	-	-	-	-	-	-	44	-
Participant 1 (Chevron cars)- Unscripted		-	-	-	14.1	-	31.4	-	8.4	-	-	-	-	-	-	27.3	-
Participant 1 (Chevron cars)- scripted		-	-	-	12.1	-	12.8	-	7.8	-	-	-	-	-	-	18.3	-
Participant 1 (Chevron cars) - prompted		-	-	-	-	-	8.8	-	-	-	-	-	-	-	-	-	-
Participant 1 (Chevron cars) – initiations/responses		9.1	3.4	18.6	6	28.2	8.7	10.2	4.2	-	-	-	-	-	-	30	9.3
Participant 1 (Caillou’s tree house)-total response score		-	14.8	-	-	-	-	-	48.5	-	-	-	-	-	-	-	49.3
Participant 1 (Caillou’s tree house)- Unscripted		-	-	-	-	-	-	-	34.5	-	-	-	-	-	-	-	28.3

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Outcome measure	Study Id	Outcome measures at different time points of assessment															
		Baseline phase (mean)		Interventi on phase - 1 (mean)		Interventi on phase – 2 (mean)		Com parat or 1		Compara tor 2		Compar ator 3		Compara tor 4		Maintenan ce phase (mean)	Generalizati on phase (mean)
		I	R	I	R	I	R	I	R	I	R	I	R	I	R		
Participant 1 (Target)		-	2.8	-	51.8	-	30	-	-	-	-	-	-	-	-	83.7	-
Participant 1 (Generalizatio n)		-	4.3	-	-	-	6.2	-	-	-	-	-	-	-	-	-	-
Participant 2 (peer comparison)		-	81.7	-	83.2	-	80	-	-	-	-	-	-	-	-	83	-
Participant 2 (Target)		-	4.9	-	61.7	-	21	-	-	-	-	-	-	-	-	48.5	-
Participant 2 (Generalizatio n)		-	2.7	-	-	-	4	-	-	-	-	-	-	-	-	-	-
Participant 3 (peer comparison)		-	92.2	-	-		91.2	-	-	-	-	-	-	-	-	94.2	-
Participant 3 (Target)		-	7.2	-	-		55.6	-	-	-	-	-	-	-	-	82	-
Participant 3 (Generalizatio n)		-	24	-	-		27.2	-	-	-	-	-	-	-	-	-	-

Note. Intervention phase 1- Video modeling + reinforcement, Intervention phase 2 – Video modeling + self management teaching phase, Comparator 1 – Video modeling alone, Comparator 2 – Reinforcement, Comparator 3 – Self management, Comparator 4 – electronic activity Schedule, I- initiation, R- response

c. *Effect size measures of conversational skills comparing VBI with additional components Vs intervention strategies*

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Outcome	Study ID	PND interve ntion1		PND comp arato r 1		PND comp arato r 2		PND comp arato r 3		PND comp arato r 4		PEM interve ntion1		PEM compa rator 1		PEM comp arato r 2		PEM comp arato r 3		PEM comp arator 4		PAND interve ntion1		PAND compar ator 1		PAND compara tor 2		PAND compara tor 3		PAND Comp arator 4	
		I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R
Participant 2 (Target)		-	56.8 %	-	57 %	-	-	-	-	-	-	-	1	-	0.71	-	-	-	-	-	-	1	-	0.85	-	-	-	-	-	-	-
Participant 2 (Generalization)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Participant 3 (peer comparison)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Participant 3 (Target)		-	-	-	88 %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.73	-	-	-	-	-	-	-	-
Participant 3 (Generalization)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Participant 1 (showing an item to the peer)	Osos et al., (2020)	-	1	-	0.5	-	-	-	-	-	-	-	1	-	0.5	-	-	-	-	-	-	-	1	-	0.77	-	-	-	-	-	-
Participant 2 (showing an item to the peer)		-	0.91	-	0.91	-	-	-	-	-	-	-	0.91	-	0.91	-	-	-	-	-	-	-	0.94	-	0.94	-	-	-	-	-	-
Participant 3 (showing an item to the peer)		-	1	-	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-

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Outcome	Study ID	PND interve ntion1		PND comp arator 1		PND comp arator 2		PND comp arator 3		PND comp arator 4		PEM interv ention 1		PEM compa rator 1		PEM comp arator 2		PEM comp arator 3		PEM comp arator 4		PAND interve ntion1		PAND compar ator 1		PAND compara tor 2		PAND compara tor 3		PAND Comp arator 4		
		PND interve ntion 2										PEM interv ention 2										PAND interve ntion 2										
Participant 1 Play doh - prompted		I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Participant 1 Play doh – initiations/r esponses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Participant 1 (chevron cars)-total response score		-	0.23		0	-	-	-	-	-	-	-	0.50	-	0	-	-	-	-	-	-	-	0.5	-	0	-	-	-	-	-	-	-
			1			-	-	-	-	-	-	-	1	-		-	-	-	-	-	-	-	1	-		-	-	-	-	-	-	-
Participant 1 (Chevron cars)- Unscripted		-	0		0	-	-	-	-	-	-	-	0	-	0	-	-	-	-	-	-	-	0.66	-	0	-	-	-	-	-	-	-
			1										1										1									
Participant 1 (Chevron cars)- Scripted	-	0		0	-	-	-	-	-	-	-	0.1	-	0	-	-	-	-	-	-	-	0.33	-	0	-	-	-	-	-	-	-	
		0										0										0										
Participant 1 (Chevron cars) – prompted		-	0			-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	

Outcome	Study ID	PND intervention1		PND comparator 1		PND comparator 2		PND comparator 3		PND comparator 4		PEM intervention 1		PEM comparator 1		PEM comparator 2		PEM comparator 3		PEM comparator 4		PAND intervention1		PAND comparator 1		PAND comparator 2		PAND comparator 3		PAND Comparator 4	
		PND intervention 2										PEM intervention 2										PAND intervention 2									
Participant 1 (Caillou's tree house)– initiations/responses		I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note. Intervention phase 1- Video modeling + reinforcement, Intervention phase 2 – Video modeling + self management teaching phase, Comparator 1 – Video modeling, Comparator 2 – Reinforcement, Comparator 3 – Self management, Comparator 4 – electronic activity Schedule, I- initiation, R- response