

**Child-Staff Ratios in Early Childhood Education and Care Settings and Child Outcomes:  
A Systematic Review and Meta-Analysis**

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**Supplemental Information 4**

Child-Staff Ratio Quality Indicator: List of Child Outcome Variables				
Outcome Category	Number of Measures	Child Outcome Variable	Number of Studies	Number of Samples
<b>Approach</b>	n=5	Child Behavior Inventory - Creativity (CBI)	1	1
		Child Behavior Inventory - Dependence (CBI)	2	2
		Child Behavior Inventory - Dependence (Parent) (CBI)		
		Child Behavior Inventory - Dependence (Teacher) (CBI)		
		Child Behavior Inventory - Distractibility (CBI)	1	1
		Child Behavior Inventory - Independent (CBI)	1	1
		Child Behavior Inventory - Task Orientation (CBI)	2	2
		Child Behavior Inventory - Task Orientation (Parent) (CBI)		
		Child Behavior Inventory - Task Orientation (Teacher) (CBI)		
<b>Cognitive</b>	n=7	Bayley Scales of Infant Development-R: Mental Development Index	1	1
		Bracken Basic Concept Scale - School Readiness (BBCS)	2	2
		Child Behavior Inventory - Intelligence (CBI)	3	3
		Child Behavior Inventory - Intelligence (Parent) (CBI)		
		Child Behavior Inventory - Intelligence (Teacher) (CBI)		
		Identifying Colors (Color Naming)	1	1
		Intellectual Ability	1	1
		Preschool Inventory (PSI)	3	3
		FACES - Social Awareness in the classroom	1	1
<b>Combo</b>	n=1	Child Behavior Rating Scale (CBRS)	1	1
<b>Language</b>	n=19	Academic Rating Scale: Language & Literacy	3	4
		Adaptive Language Inventory (ALI)	1	1
		Communication task	1	1
		Early Childhood Longitudinal Study - Literacy (ECLS)	1	1
		Identifying Letters (Letter-Naming Test, Naming Letters)	5	6
		Oral & Written Language Scales - Oral Expression Scale (OWLS)	5	5
		Oral & Written Language Scales - Total Scale (OWLS)	1	1
		Peabody Picture Vocabulary Test (PPVT-III)	16	16

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		Peabody Picture Vocabulary Test (PPVT-R)		
		Peabody Picture Vocabulary Test (TVIP)		
		Preschool Language Assessment Instrument (PLAI)	1	1
		Reynell Developmental Language Scales (RDLS) - Expressive Language	1	1
		Reynell Developmental Language Scales (RDLS) - Language Comprehension	1	1
		Sequenced Inventory of Communication Development-Revised (SICD-R) -Expressive Communication Age	1	1
		Sequenced Inventory of Communication Development-Revised (SICD-R)-Receptive Communication Age	1	1
		Story & Print Concepts - Book Knowledge	1	1
		Woodcock Johnson - Dictation (WJ-R)	1	1
		Woodcock Johnson - Letter Word Identification (WJ-III)	4	4
		Woodcock Johnson - Letter Word Identification (WJ-R)		
		Woodcock Muñoz - Indentificación de Letras y Palabras		
		Woodcock Johnson - Passage Comprehension (WJ-III)	1	1
		Woodcock Johnson – Revised Reading	1	1
		Woodcock Johnson - Rhyming (WJ-III R)	3	3
<b>Math</b>	n=5	Counting Task (One-One Counting)	1	1
		Early Childhood Longitudinal Study - Math (ECLS)	1	1
		K-ABC (German Version) Arithmetic (K-ABC)	1	1
		Identifying Numbers (Naming Numbers)	1	1
		Woodcock Johnson - Applied Problems (WJ-III)	9	10
		Woodcock Johnson - Applied Problems (WJ-)		
		Woodcock Muñoz – Problemas		
<b>Physical</b>	n=1	Design Copying	1	1
<b>Positive Behavior</b>	n=22	Adaptive Social Behavior Inventory – Comply	1	1
		Adaptive Social Behavior Inventory - Comply (Parent) (ASBI)		
		Adaptive Social Behavior Inventory - Comply (Teacher) (ASBI)		
		Adaptive Social Behavior Inventory – Express	1	1
		Adaptive Social Behavior Inventory - Express		

**Outcomes:  
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Outcome Category	Number of Measures	Child Outcome Variable	Number of Studies	Number of Samples
		(Parent) (ASBI)		
		Adaptive Social Behavior Inventory - Express (Teacher) (ASBI)		
		Child Behavior Inventory - Considerateness (CBI)	2	2
		Child Behavior Inventory - Considerateness (Parent) (CBI)		
		Child Behavior Inventory - Considerateness (Teacher) (CBI)		
		Child Behavior Inventory - Sociability (CBI)	2	2
		Child Behavior Inventory - Sociability (Parent) (CBI)		
		Child Behavior Inventory - Sociability (Teacher) (CBI)		
		Cooperative Behavior	1	1
		Early Childhood Longitudinal Study - Attention & Concentration	1	1
		Early Childhood Longitudinal Study - Attention & Concentration (Teacher)		
		Early Childhood Longitudinal Study - Attention & Concentration (Parent)		
		Early Childhood Longitudinal Study - Emotional & Behavioral Regulation	1	1
		Early Childhood Longitudinal Study - Emotional & Behavioral Regulation (Teacher)		
		Early Childhood Longitudinal Study - Emotional & Behavioral Regulation (Parent)		
		Early Childhood Longitudinal Study - Prosocial	1	1
		Early Childhood Longitudinal Study – Prosocial (Teacher)		
		Early Childhood Longitudinal Study – Prosocial (Parent)		
		Observational Record of the Caregiving Environment – Self-Reliance (ORCE)	1	1
		Observational Record of the Caregiving Environment - Sustained Attention (ORCE)	1	1
		Positive Social Behavior Composite	1	1
		Social - Cognitive Ability	1	1
		Social - Competence with Stranger	1	1
		Social - Competence with Visitor	1	1
		Social Competence (rated by teacher)	1	1
		Social Problem-Solving Skills Procedure - Prosocial Categories	1	1

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Outcome Category	Number of Measures	Child Outcome Variable	Number of Studies	Number of Samples
		Social Problem-Solving Skills Procedure - Prosocial Responses	2	2
		Social Skills Rating Scale	1	1
		Social Skills Rating Scale - Parent		
		Social Skills Rating Scale - Teacher		
		Social Skills and Behavior Problems Scale - Social Competence (SSBS)	1	1
		Student-Teacher Relationship Scale - shortened (STRS)	1	1
		Teacher Child Rating Scale - Social Competence (TCRS)	4	5
		The California Preschool Social Competency Scale Social Competence	1	1
Problem Behavior	n=23	Behavior Problems Composite	1	1
		Behavior Problems Index - Antisocial (BPI)	1	1
		Behavior Problems Index - Attention-Deficit (BPI)	1	1
		Behavior Problems Index - Depressed (BPI)	1	1
		Behavior Problems Index - Immature/Dependent (BPI)	1	1
		Child Behavior Checklist - Externalizing (Parent) (CBCL)	1	1
		Child Behavior Checklist - Internalizing (Parent) (CBCL)	1	1
		Child Behavior Inventory - Apathy (CBI)	1	1
		Child Behavior Inventory - Behavior Problems (CBI)	1	1
		Child Behavior Inventory - Hostility (CBI)	1	1
		FACES - Aggressive Behavior	1	1
		FACES - Aggressive Behavior (Parent)		
		FACES - Aggressive Behavior (Teacher)		
		FACES - Hyperactive Behavior	1	1
		FACES - Hyperactive Behavior- Parent		
		FACES - Hyperactive Behavior- Teacher		
		FACES - Withdrawn Behaviors	1	1
		FACES - Withdrawn Behaviors - Parent		
		FACES - Withdrawn Behaviors - Teacher		
		Preschool Behavior Questionnaire - Aggression (PBQ) (Parent)	1	1
		Preschool Behavior Questionnaire - Aggression (PBQ) (Teacher)		

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Outcome Category	Number of Measures	Child Outcome Variable	Number of Studies	Number of Samples
		Preschool Behavior Questionnaire - Anxiety (PBQ)	1	1
		Preschool Behavior Questionnaire - Anxiety (PBQ) (Parent)		
		Preschool Behavior Questionnaire - Anxiety (PBQ) (Teacher)		
		Preschool Behavior Questionnaire - Hyperactivity (PBQ)	2	2
		Preschool Behavior Questionnaire – Hyperactivity/Distractible (PBQ)		
		Preschool Behavior Questionnaire - Hyperactivity (PBQ) (Parent)		
		Preschool Behavior Questionnaire - Hyperactivity (PBQ) Teacher)		
		Preschool Behavior Scale - Hyperactivity (PBS)	1	1
		Social Problem-Solving Skills Procedure - Antisocial Categories	1	1
		Social Problem-Solving Skills Procedure - Antisocial Responses	1	1
		Social Skills and Behavior Problems Scale - Behavior Problems (SSBS)	1	1
		Teacher Child Rating Scale - Behavior Problems (TCRS)	3	4
		Teacher's Report Form - Externalizing (Teacher) (TCRF)	2	2
		Teacher's Report Form - Internalizing (Teacher) (TCRF)	2	2
<b>Total</b>	<b>n=83</b>			