Typically Developing Children's Behavior toward Peers with Disabilities

Soo-Young Hong, PhD
Jungwon Eum, MS

Child, Youth and Family Studies
College of Education and Human Sciences
University of Nebraska-Lincoln

Thanks to…

- ExCITE classroom teachers and children
- Yanjie Long, CYAF Doctoral student
- Chaorong Wu, MS, EDPS Doctoral student
- Greg Welch, PhD, CYFS
- Gayatri Jayaraman, MS, SECD Doctoral student
- Elizabeth Milhouse, CYAF undergraduate student
- Deila Steiner, PhD, LPS Director of Federal Programs
- Pat Schmidt, LPS Head Start/ExCITE Coordinator
- Dawn Wright, former LPS Disability Specialist

Introduction

- Children with disabilities (CWD) tend not to initiate or have frequent social interactions with typically developing children (TDC) (Odom et al., 2006), and this, in turn, affects their development and learning.

- The role of typically developing children and teachers may be important for the learning and development of children with disabilities in preschool settings.

Introduction

- Previous studies have examined preschoolers' attitudes toward peers with disabilities in their play (e.g., Diamond & Hong, 2010).

- However, little is known about children's and teachers' actual behavior toward peers with disabilities.
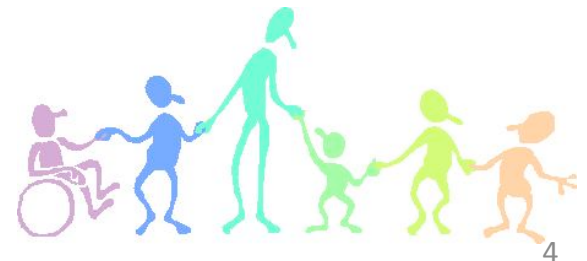
Research Questions

- In what contexts, are typically developing children (TDC) more likely to interact with peers with disabilities (CWD)?

- When TDC interact with CWD, what types of social behaviors do they exhibit?

- When a teacher is near the TDC and CWD, does the teacher intervene the interactions between TDC and CWD?

Participants

- 22 TD children (12 girls; mean age = 52.96 mos.; SD = 6.10) from 7 half-day inclusive preschool classrooms located within 4 public schools

- 7 teachers with at least a BA degree in Inclusive ECE and 3 to 15 years of early childhood teaching experience

- Each class contained many children from low-income families and at least 3 to 5 children with at least one identified disability.

Procedures

- Behavior and talk of TDC and their teachers were observed for 20 seconds and coded for 30 seconds on 2 different days during entire class time except large group time (approx. 6 hours per child).

- Teacher behavior and talk promoting social interactions between TDC and CWD were coded when teachers were within 3 feet from the target child.

- The inter-coder reliability ranged from 75% to 100%.

Measures

- Coding systems developed to record TDC's and teachers' behavior and talk and classroom context

- Coding categories: Context and TDC's Behavior
  - Context
  - Nature of activity
  - Type of activity
  - Group composition
  - Type of social play
  - Nature of peer interaction
  - Teacher behavior and talk

Measures

- Coding categories: Teacher Behavior
  - Teaches or models
  - Participates
  - Prompts communications
  - Redirects
  - Comments, suggests, questions
  - Refers to a peer
  - Interprets
  - Disciplines
  - Monitors
  - Disengaged
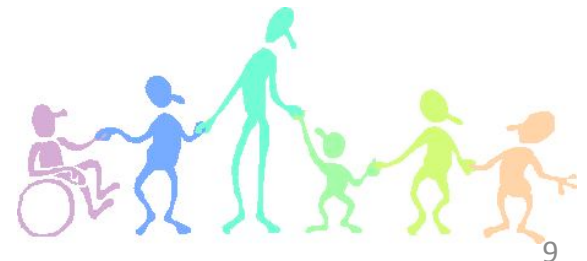
Measures

- Expressive vocabulary
  – W-J III Picture Vocabulary

- Parent and teacher questionnaires
  – Demographic information

Coding System

Context/Behavior	1	2	3	4	5	6	7	8	9	10
Indoor classroom										
Outdoor classroom										
Indoor gym										
Child-directed										
Adult-directed										
Daily routines/transitions										
Other										
Book reading										
Large building blocks										
Legos and small toys										
Puzzles and shapes										
Games with rules										
Sensory activity										
Large motor activity										
Science and nature										
Open-ended art										
Closed-ended art										
Dramatic play										
Music and movement										
Writing										
Large play structure										
Riding vehicles										
Other										
Personal care										
Meal and snack										
Clean up										
Transition activity										
C alone										
C + 1 adult										
C + 1 peer	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
C + 2-3 peers	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
C + 1 adult + 1 peer	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
C + adults + 2-3 peers	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
C + adults + 4↑ peers	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
Unoccupied/wandering										
Onlooker										
Parallel play/on-task behavior										
IP: Engaged with adult(s) only										
IP: Eng with 1 peer	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
IP: Eng with peers only	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
IP: Eng with adult(s) & peer	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
IP: Eng with adult(s) & peers	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E
IP: Without materials or toys	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E	T D E

Context/Behavior	1	2	3	4	5	6	7	8	9	10
Initiate										
Respond										
Positive										
Negative										
Simple acknowledgment	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Shows interests in peer	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Joins or invites peer	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Asks simple questions	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Describes	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Actively engaged	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Helps (active)	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Seeks or receives help (passive)	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Leads peer (active)	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Is led by peer (passive)	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Expresses emotions	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Competes with peer (AA, ME)	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Refuses or ignore peer	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Be assertive	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
Follow the (game) rule	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Initiate										
T: Respond										
T: Teaches or models	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Participates	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Promotes communications	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Redirects	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Comments, suggests, questions	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Refers to a peer	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Interprets	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Disciplines	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Monitors	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N
T: Disengaged	V N	V N	V N	V N	V N	V N	V N	V N	V N	V N

Analyses

- Eco-behavioral analysis with 'behavior' as a unit of analysis to examine the co-occurrence of behavior, context, and teacher support

- Multi-level logistic regression analysis
  - proc glimmix in SAS
    - Level 1: Behavior
    - Level 2: Child

Frequencies and Percentages of Study Variables

| Categories and Variables	Frequency	Percent
▪ **TD's Interaction with D (DV)**		
No	5300	90.52
Yes	555	9.48
▪ **Activity Context**		
Outdoor	830	14.18
Indoor	5025	85.82
▪ **Nature of Activity**		
Child-Directed	2937	50.21
Adult-Directed	655	11.2
Transitions/Routines	2258	38.6
▪ **Types of Activity**		
Academic	519	8.86
Play	2566	43.82
Transitions/Routines	2769	47.29

Note. TD = Typically developing children, D = Peer(s) with disabilities

In what contexts, are typically developing children (TDC) more likely to interact with peers with disabilities (CWD)?

Effect	Estimate	Std Error	DF	t Value	Pr > |t|
▪ **Intercept**	0.51	2.60	14	0.20	0.8467
▪ **Outdoor (Ref=Indoor)**	0.40	0.13	5251	3.18	0.0015
▪ **Type of Activity (Ref=Play)**					
Academic	-0.63	0.21	5251	-2.99	0.0028
Transitions/Routines	-0.84	0.11	5251	-7.92	<.0001
• **C Age**	-0.04	0.05	5251	-0.70	0.4839
• **C Gender (Ref=male)**	-0.29	0.54	5251	-0.55	0.5845
• **C Expressive Vocab**	-0.05	0.12	5251	-0.50	0.6160
• **C Ethnicity (Ref=Non-EA)**	-0.32	0.45	5251	-0.71	0.4805
• **P Education Level (Ref=BA/ above)**	0.61	0.56	5251	1.08	0.2796

Note. C = Child, P = Parent (mostly mothers), Ref = Reference, Vocab = Vocabulary, TDC = Typically developing children, CWD = Peer(s) with disabilities

When TDC children interact with CWD, what types of social behaviors do they exhibit?
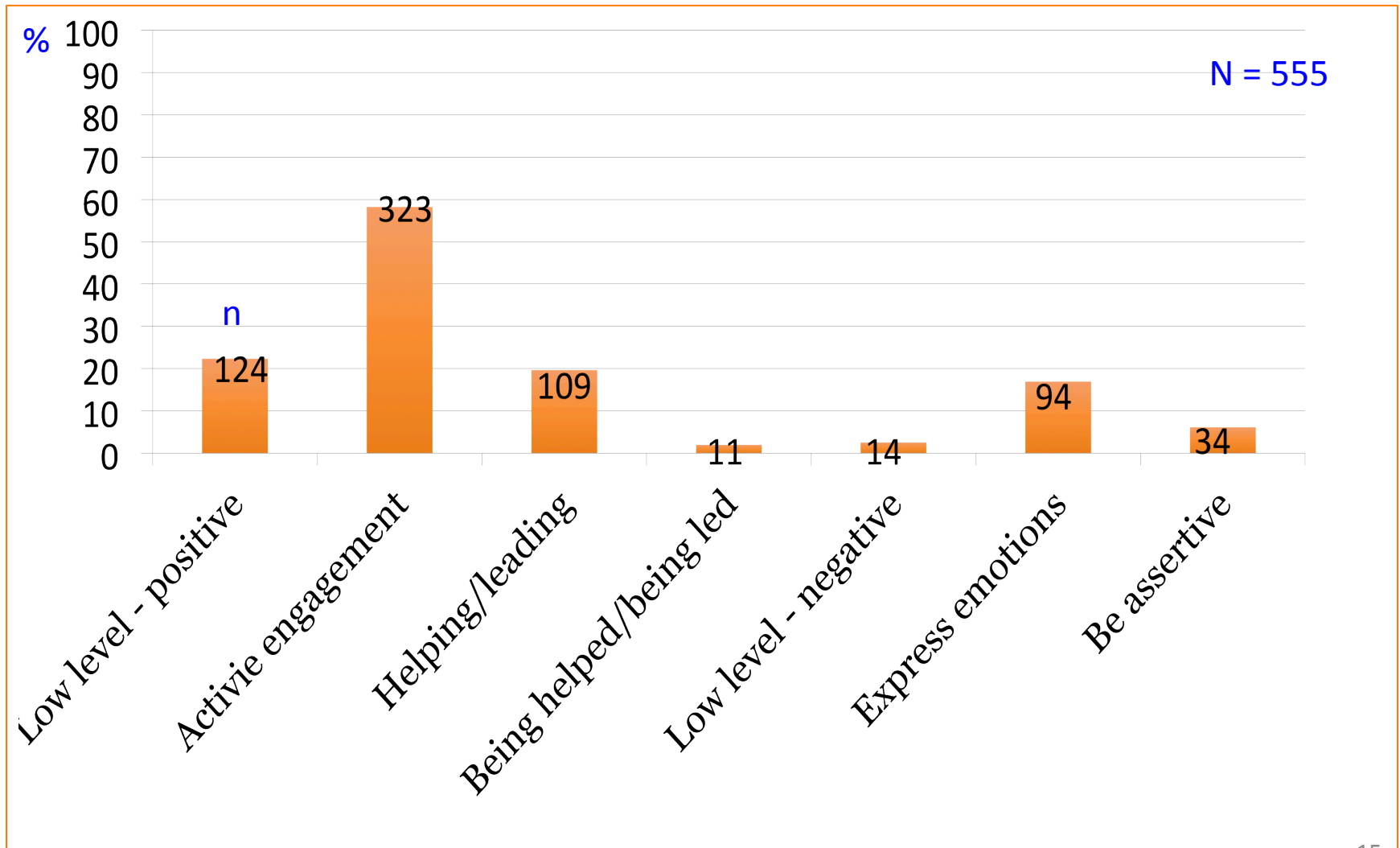
When a teacher is near the TDC and CWD, does the teacher intervene the interactions between TDC and CWD?

	n	Percentage
▪ **Teacher present within 3 feet from the target child**	2750 (N=5855)	47%
▪ **Teacher behaviors that promote social interactions**	101 (N=2750)	3.67%
▪ **Teacher initiated interactions**	78 (N=2750)	2.84%

Discussion

- The frequency of interactions between typically developing children (TDC) and children with disabilities (CWD) was very low (9.48% of the time), which is consistent with previous studies.

- Play activities and outdoor classroom may be effective contexts where teachers can promote social interactions between TDC and CWD.

Discussion

- When TDC and CWD interact, they were actively engaged, and their interactions were positive.

- More specialized teacher training opportunities may be needed to encourage teachers to intentionally support social interactions between TDC and CWD.

Implications

- What are take-away points?

- How can information from this study inform or advance early childhood practice?

- How can information from this study inform or advance early childhood public policy?

- What additional research is needed to inform or advance early childhood practice and/or policy?
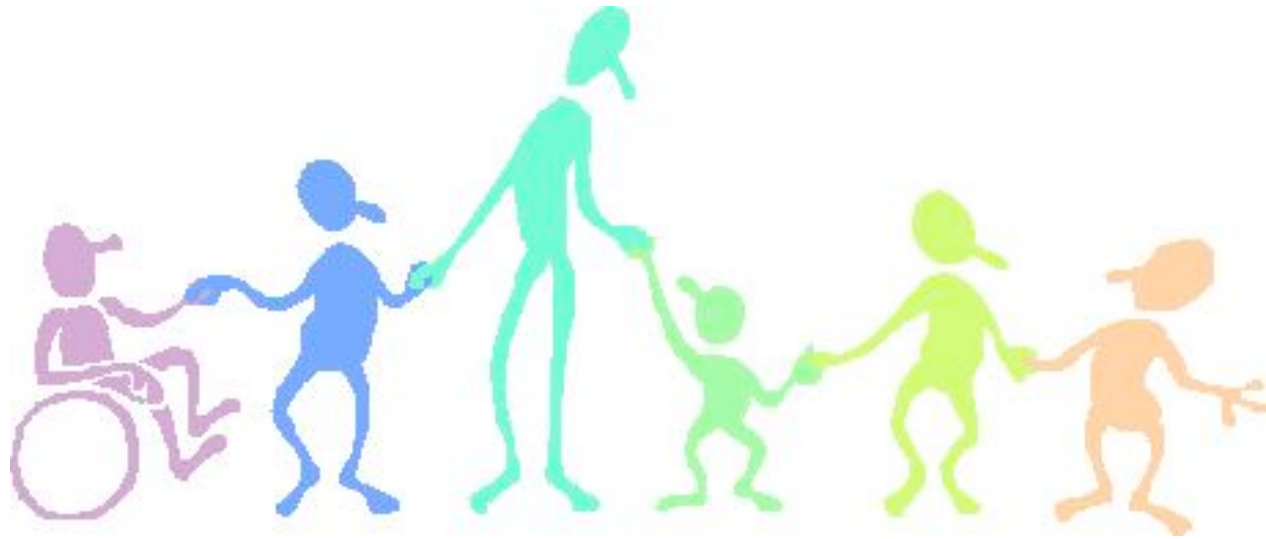
Thank you!

Soo-Young Hong shong5@unl.edu

Jungwon Eum jeum@me.com