Classroom Social Networks in Early Childhood Education

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Classroom Social Network

Social connections with peers in the classroom

• Composed of learners and various forms of social connections
• Structural
• Shaped by learners and contexts
• Influence learning and development
• Dynamic and changing
Why Should We Understand Young Children’s Social Networks?

- Young children form various social experiences with their classroom peers
  - Friendship (Quinn & Hennessy, 2009)
  - Aggression and victimization (Kirves et al., 2012; Ladd et al., 2017)

- Early social experiences are vital to children’s social and academic development (Domitrovich, Durlak, Staley, & Weissberg, 2017)
Poll

What percentage of children have at least one best friend in a preschool classroom?
1. <20%
2. 20-40%
3. 40-60%
4. >60%

What percentage of children are ‘moderate victims’ in a preschool classroom?
1. < 10%
2. 10-20%
3. 20-30%
4. >30%

0 = never, 1 = sometimes, 2 = a lot
Early Learning Ohio Project

Five-year IES Project (2016-2021)

Three Studies
- Policies and practice influencing classroom ecology
- Dimensions and influences of classroom ecology
- Longitudinal influences of early experiences in classroom ecology

Study 2
- 2,788 children from 149 PreK-3 classrooms in central Ohio in 2016-17 and 2017-18
Best Friends in Class

Peer Nomination

Percentage of Children having at Least One Best Friend in Class

- PREK: 0.584
- K: 0.55
- 1ST: 0.767
- 2ND: 0.815
- 3RD: 0.835

- Fall
- Spring
Percentage of Children having at Least One Best Friend in Class

- **PREK**
  - Fall: 0.584
  - Spring: 0.52

- **K**
  - Fall: 0.55
  - Spring: 0.624

- **1ST**
  - Fall: 0.767
  - Spring: 0.747

- **2ND**
  - Fall: 0.815
  - Spring: 0.782

- **3RD**
  - Fall: 0.835
  - Spring: 0.771
Peer Victimization

Self-report of being hit, picked on, said mean things, talked behind the back

Percentage of Moderate Victims

<table>
<thead>
<tr>
<th>Grade</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREK</td>
<td>0.325</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>0.297</td>
<td></td>
</tr>
<tr>
<td>1ST</td>
<td>0.122</td>
<td></td>
</tr>
<tr>
<td>2ND</td>
<td>0.09</td>
<td></td>
</tr>
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<td>3RD</td>
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<td>0.297</td>
<td>0.322</td>
</tr>
<tr>
<td>1ST</td>
<td>0.122</td>
<td>0.091</td>
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<tr>
<td>2ND</td>
<td>0.09</td>
<td>0.176</td>
</tr>
<tr>
<td>3RD</td>
<td>0.122</td>
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</tbody>
</table>
Who do children form social networks in the classroom?

Homophily Phenomenon
(birds of a feather flock together)
Gender and Behavior

- Gender homophily
  - Occurred as early as 2 years old, and increase over time

- Homophily of Children with Problem Behaviors

How About more Malleable Child Characteristics?

- 270 children from 61 rural preschool classrooms
- Frequency of play was rated by classroom teachers

- Children interacted more frequently with peers who
  - demonstrated similar learning-related behaviors
  - share similar language and literacy skills

Lin et al. (2016) in ECRQ

= Learning-related behavior  = Language and literacy skills
Disability Homophily

- Children from 29 early childhood special education (ECSE) classrooms from Head Start, state-funded, and private programs
- Teachers rated frequency of play and conflict between each pair of children

Chen, Lin, et al. (2017) in JADD
Disability Homophily & Isolates

- 124 children with developmental language disorder, 56 children with other disabilities, 247 typically developing children from 56 ECSE inclusive classrooms

Chen, Justice, Rhoad-Drogalis, Lin, & Sawyer (2018) in Child Development

Color: DLD; Other disabilities; typically developing children
Shape: □ = Isolated; ○ = non-isolated
Learner Factors Predicting Cross-Status Play Interactions

- Pragmatic language and self-regulation were significant positive predictors of cross-status play interactions.
- Pragmatic language had a stronger positive effect on the probability for children with disabilities to form cross-status interactions than it did for typically developing children.

Lin et al. (2019) in *Exceptional Children*
Do Children and Teachers Perceive Classroom Social Networks in the same way?
Triple Alignment Study

- One preschool classroom in a nonprofit early childhood center
- Peer nomination, Teacher report, Researcher Observation

Chen, Lin, et al. (2020) in Frontiers in Psychology
Teacher’s Conflict Intervention

- Conflicts were identified from the video recordings of children wear a head-mounted camera during one of the observation days.
- A total of 159 peer conflicts were identified over a four-day period in the fall of the academic year.
- Teachers only intervened in 27 conflicts, most of which did not yield a positive conflict outcome.

Myrtil, Lin, et al. (accepted with minor revision) in ECRQ
Conclusion and Discussion

Young children can form complex social networks
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- Their tendency to associate with like-minded peers may lead to segregated classroom social networks
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- There are important skills that children can learn to foster more inclusive or equitable social networks
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Young children can form complex social networks

Their tendency to associate with like-minded peers may lead to segregated classroom social networks

There are important skills that children can learn to foster more inclusive or equitable social networks

Teachers’ sensitivity to children’s perspectives can help them enact social practices more effectively in the classroom