Play ideas or possessions?: Exploring peer conflict in a nature-based preschool

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Abstract

This study explored peer conflict among preschoolers during indoor and outdoor free play in a nature-based preschool. Video recorded observation data were collected during 30 minutes of outdoor free play and 30 minutes of indoor free play for each preschooler (n=15). We analyzed and coded data using event sampling method. Peer conflict occurrences in both the indoor and outdoor setting were coded for conflict location, catalyst, and resolution pattern. Our analysis revealed that in the nature-based preschool, 1) conflict events varied by setting, 2) conflict catalyst type occurred at different rates between indoor and outdoor setting, 3) conflict resolution patterns varied by setting, and 4) conflict resolution in both settings were more likely to be initiated by children.

Introduction & Research Questions

Theory. Bioecological theory (Bronfenbrenner, 1986) guided the understanding of preschoolers' conflict in the indoor and outdoor setting: Microsystem, children's surroundings in each setting; Mesosystem, peer interactions and adult proximity

Review of the literature
Play provides a context for children to develop social, emotional, physical, and cognitive skills (Aras, 2016).

Play in the natural outdoor environment presents children with unique opportunities to engage in deep sustained play and tends to offer a larger degree of freedom lending itself to child-initiated learning and smaller degree of adult control (Bohling et al., 2010; Sutterby & Frost, 2006; Maynard et al., 2013)

Conflict is a naturally occurring opportunity to practice social skills, negotiation, resource sharing, cooperation, self-regulation (Aasen et al., 2009; Chen et al., 2001; Laursen et al., 2000). Participation in conflict management is a key component in the formation and maintenance of interpersonal relationships (Laursen et al., 1996). Child-initiated play is one context in which preschool children engage in peer conflict

Research gaps. Most studies examining conflict in the context of play were conducted in indoor classrooms. This study explored conflict during child-initiated play in the outdoor and indoor setting of a nature-based preschool.

Research questions
1. Does the amount of conflict differ among children during outdoor and indoor child-initiated play in a nature-based preschool?
2. How does peer conflict emerge among children during outdoor and indoor child-initiated play in a nature-based preschool?
3. How is conflict resolved among children in the context of child-initiated play in a nature-based preschool?

Publication

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Participants, Methods & Analysis

Participants: 15 children, ages 36-60 months
Setting: Nature-based preschool, Mid-Atlantic region. Outdoor setting is 1500 sq ft forested area with natural boarders, unique exploration opportunities, natural materials and natural lighting. Indoor setting is a 700 sq ft controlled climate with designated activity spaces, child sized furniture, prefabricated materials, and florescent lighting.
Methods
Over 930 minutes of observation data were collected through video record. Each participant was video recorded for a 30-mintute observation period during both their outdoor and indoor free play.

The unit of analysis for this study was the conflict event and participants as a whole group rather than focusing on individual child behaviors.

We defined conflict as *a social interaction in which an emotional exchange occurs between two or more individuals that is characterized by events in which one individual protests, resists, retaliates, or opposes the actions of another individual, and the second individuals' action is met with resistance or acceptance* (Chen, et al., 2001; Garvey, 1984; Hay, 1984; Shantz, 1987).
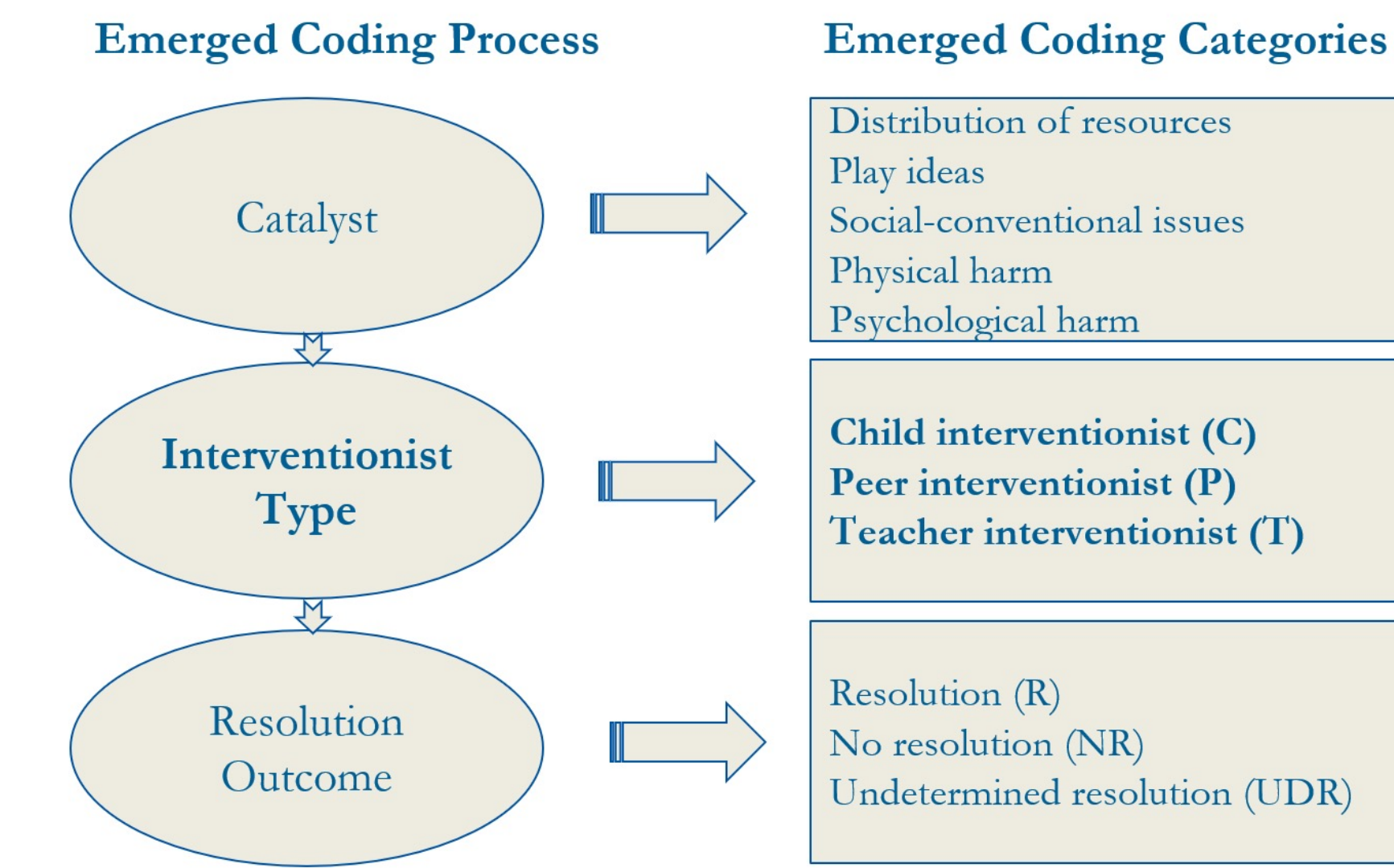
Emerged coding process revealed three major categories.
Catalysts- the driver of conflict
Interventionist type- individuals involved in the conflict
Resolution outcome- how the conflict ended

Figure 1

Emerged Coding Process → Emerged Coding Categories

Catalyst → Distribution of resources / Play ideas / Social-conventional issues / Physical harm / Psychological harm

Interventionist Type → Child interventionist (C) / Peer interventionist (P) / Teacher interventionist (T)

Resolution Outcome → Resolution (R) / No resolution (NR) / Undetermined resolution (UDR)

Using the coding categories above, incidents that met the definition of a conflict were coded.

Initial **catalyst** coding process began with prior categories identified by Chen et al. (2001) and Killen & Turiel (1991). (Definitions in Table 1)

Table 1
Catalyst Definitions

Catalyst	Coding	Description
Distribution of Resources	DR	fairness issues such as violation of sharing, turn taking, grabbing, taking
Play Idea	PI	who will do what, how, when and where, use of play space
Social-conventional Issues	SCI	violation of class or school rules about running indoors, how to take turns, or cleaning up time and procedure, **number of center participants**
Physical Harm	PH	hitting, biting, punching, kicking, **unwanted tickling**
Psychological	PSH	name-calling, teasing, **accusation**

Note. Bold type indicates emerged category description not used in previous studies.

Interventionist types were coded for conflict event participants.
Child interventionist- children directly involved in conflict
Peer interventionist- peer NOT involved in current conflict event
Teacher interventionist- lead teacher and other adults present

A priori coding was used for **resolution** outcome: resolution, no resolution, undetermined resolution (Chen et al., 2001).

Findings

RQ1- The first research question sought to answer whether the number of conflict differs among children during outdoor and indoor child-initiated play in a nature-based preschool.
- Conflict totals and average duration
  - 22 outdoor conflict events avg. 50 seconds
  - 33 Indoor conflict events avg. 38 seconds
- Conflict by focal child gender varied between the settings
  - Outdoor setting girls accounted for 59.1% of conflict events (n=13)
  - Indoor setting boys accounted for 66.7% of conflict events (n=22)
- Conflict events by specific setting location
  - Outdoor: jumping stump (n=5), open play space (n=4), stage (n=3), mud kitchen (n=3), fairy garden (n=1), obstacle course (n=2), picnic table (n=2), snack table (n=1), workbench (n=1).
  - Indoor: light table (n=18), middle activity table (n=6), train carpet (n=4), play kitchen (n=2), snack table (n=1), science center (n=1), bookshelf carpet (n=1).

RQ2- The second research question sought to answer whether the catalysts by which conflict emerges is different during indoor & outdoor free play (Results displayed in Figure 2).
- Play idea catalyst was the main driver of conflict in the outdoor setting.
- Distribution of resources catalyst was the main driver of conflict in the indoor setting.
- Social-conventional issues were only noted in the indoor setting.
- Physical harm catalyst occurred once in the outdoor setting.
- Psychological harm catalyst occurred once in the indoor setting.

Catalyst Type by Gender
- Distribution of resources was the primary conflict catalyst for boys in the indoor setting compared to boys in the outdoor.
- In the outdoor setting, play ideas was the most commonly observed catalyst for boys.
- For girls, distribution of resources catalyst was observed at about the same rate in both settings.
- Play ideas catalyst occurred more in the outdoor for girls then in the indoor.
- For both boys and girls, social conventional issues catalyst was observed at the same rate indoors, but was not observed for either boys or girls in the outdoor.

RQ3: The final research questions sought to answer how conflict is resolved among children in the context of child-initiated play in a nature-based preschool.

Interventionist Type Patterning (Results displayed in Table 2)
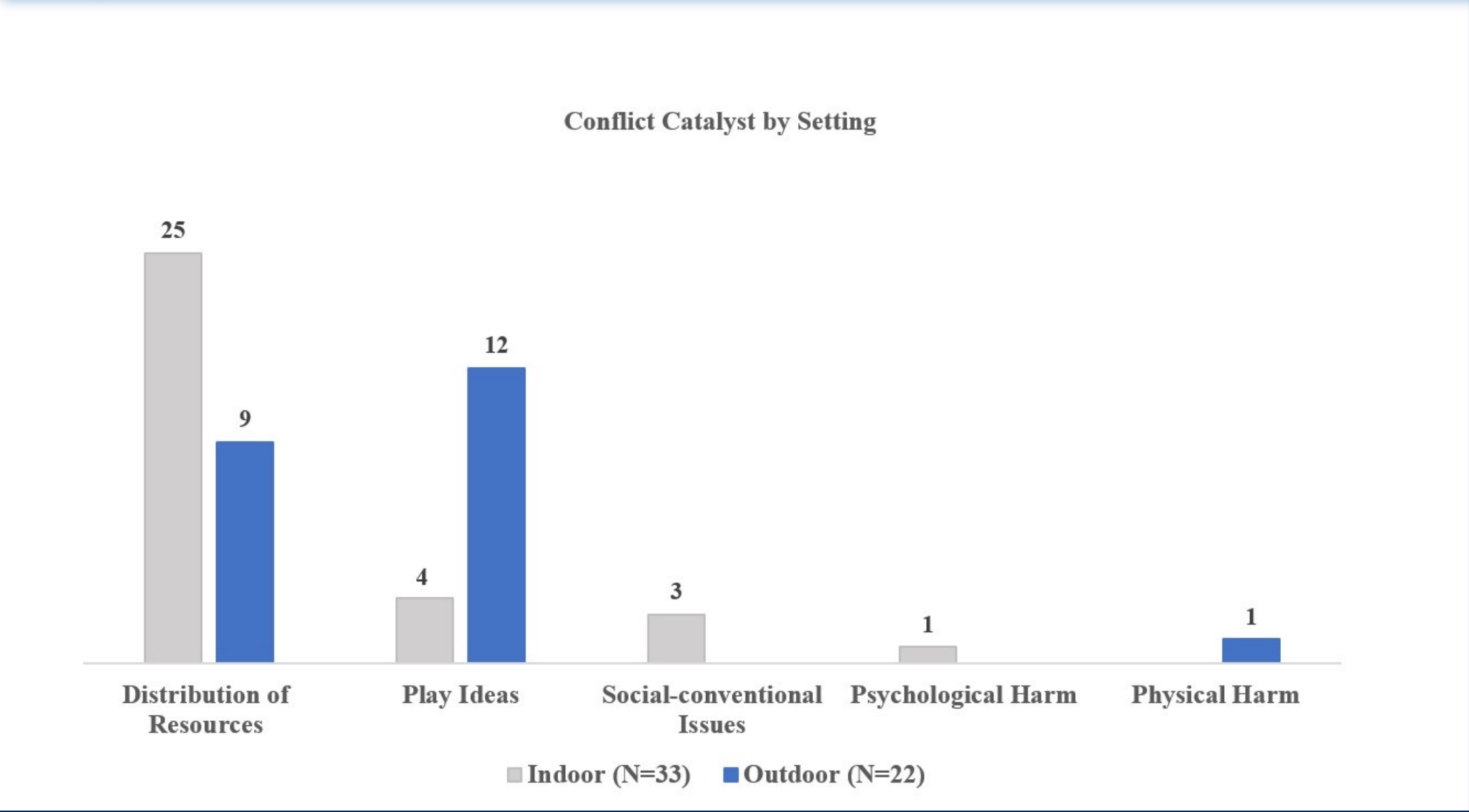- The data revealed C as the most prevalent interventionist type used in both settings.
- Five of the interventionist types were observed in both settings.
- Three additional interventionist types were observed only in the outdoor setting.

Indoor and Outdoor Resolution Outcomes
The majority of the conflicts were resolved with the final interventionist type being child or peer interventionist.
- Over 69% (n=9) of the outdoor conflicts were resolved by children.
- Over 77% (n=17) of the indoor conflicts were resolved by children.
- Outdoor conflicts
  - 6 conflicts were resolved by child/peer interventionist type without teacher involvement.
  - 3 conflicts involved a teacher but ended by child or peer interventionist type.
- Indoor conflicts
  - 14 conflicts were resolved by child or peer interventionist type without teacher involvement.
  - 3 conflicts involved a teacher but ended by child interventionist type

Figure 2

Conflict Catalyst by Setting

(Indoor (N=33), Outdoor (N=22))
Distribution of Resources: 25 / 9
Play Ideas: 4 / 12
Social-conventional Issues: 3
Psychological Harm: 1
Physical Harm: 1

Table 2

Interventionist Type by Setting

Indoor Interventionist Types		Total	Outdoor Interventionist Types		Total
C	child	19	C	child	10
T	teacher	8	T	teacher	1
C/T	child-teacher	2	C/T	child-teacher	3
C/P	child-peer	1	C/P	child-peer	1
C/T/C	child-teacher-child	3	C/T/C	child-teacher-child	4
			T/C	teacher-child	1
			C/P/T	child-peer-teacher	1
			C/T/C/T	child-teacher-child-teacher	1

Conclusion & Future Research Direction

Conclusion
This study adds to the literature by filling the gap in understanding peer conflict in a nature-based preschool and a natural outdoor setting.

Findings suggest conflict catalyst and occurrence vary by setting. More conflicts were observed in the indoor setting. Of the observed conflicts, play ideas was the most frequently occurring catalyst in the outdoor setting and distribution of resources was the most prevalent catalyst in the indoor setting.

More complex interventionist patterns occurred in the outdoor setting, which may help explain the differences in outdoor and indoor conflict duration.

The child interventionist resolution pattern was the most frequently observed pattern in both settings demonstrating children engage in conflict and resolve conflict without adult intervention in both settings.

Future Research Direction
This study raises a key question about whether the difference in primary conflict catalysts and duration between settings is a direct result of the outdoor environment itself. Future investigation should explore potential variations in the quality of conflict between settings and the complexity of intervention types.