

ABSTRACT

Title of Dissertation: TEACHER INTERVENTIONS IN THE PEER
 CONFLICTS OF PRESCHOOL CHILDREN:
 THE EFFECTS OF CHILDREN'S AGE AND
 CONFLICT BEHAVIOR.

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The frequency, latency and strategies of teacher intervention in the peer conflicts of 2, 3, and 4 year-olds were examined in relation to the age of children and their conflict behaviors in the naturalistic classroom setting during freeplay time. 400 children from 25 classrooms (eight 2 year-old, nine 3 year-old, and eight 4 year-old classrooms) were videotaped for up to two 5-minute time blocks. Only the first peer conflict event generated by each target child observation was included in the analysis. Of the 400 children observed, 322 generated a conflict event. Teachers intervened in 31.4% of these events. While the issues, insistence and resolution of conflict significantly changed with children's age, the incidence and escalation of conflict, as well as child solicitation of teacher assistance did not. Although significant age effects

were found for the frequency and latency of intervention, teacher intervention strategies were not affected by the children's age or specific child conflict behaviors. Mediation strategies were infrequently used, especially with 4 year-olds. Additional analyses revealed that teachers' level of education and the NAEYC accreditation status of the centers are significant predictors of teacher strategy. Problems for future investigation are described.

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PRESCHOOL CHILDREN:
THE EFFECTS OF CHILDREN'S AGE AND CONFLICT BEHAVIORS

by

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CHAPTER 1

THE PROBLEM

The important and unique contributions of peer social interactions to children's long term development has been recognized by researchers and educators from a variety of specialty areas within the field of early childhood education (DeVries & Zan, 1994; Fein & Schwartz, 1986; Hay, 1984; Kamii & DeVries, 1993; Killen & Nucci, 1995; Kostelnik, Soderman, Whiren & Stein, 1993; Mize & Ladd, 1990; Pflaum, 1986; Polland, 1990; Selman, 1980; Slaby, Roedell, Arezzo & Hendrix, 1995). Recent interest has focused on peer conflict and its contributions to the development of morality, autonomy and social competence. Since one particular aspect of moral knowledge concerns how others ought or ought not to be treated (Helwig, 1995), these researchers propose that peer conflicts provide natural opportunities for children to develop conflict resolution skills that recognize and appreciate the perspectives of others (DeVries, Reese-Learned & Morgan, 1991; DeVries & Zan, 1994; Hartup, Laursen, Stewart & Eastenson, 1988; Killen & Naigles, 1995; Killen & Turiel, 1991; Puttallaz & Sheppard, 1992; Shantz & Shantz, 1985).

Peer conflicts are defined in the research literature as events in which one person protests, retaliates, or resists the actions of another (Hay, 1984; Shantz, 1987a). Conflicts are frequently occurring social events in the group lives of young children (Genishi & DiPaolo, 1982; Killen & Turiel, 1991; Shantz, 1987a). Although most researchers agree that children's development of conflict resolution skills is influenced by their direct experiences with peers, teachers are also thought to play a significant role (Genishi & DiPaolo, 1982; Goncu & Cannella, 1996; Hay, 1984; Killen & Turiel,

1991; Killen & Nucci, 1995). Teacher behavior constitutes an important element of the day care setting especially given the substantial amount of time that young children are currently spending in child care centers (Holloway & Reichhardt-Erickson, 1988). Increasing our knowledge of how teachers intervene in children's conflicts by identifying aspects of teachers' behaviors that may nurture the development of conflict resolution skills is one way of deepening our insights into children's development in this area (Holloway & Reichhardt-Erickson, 1988; Killen & Turiel, 1991).

Although suggestions and strategies for teacher intervention in children's peer interactions have been offered by a number of educators and researchers (Britz & Richard, 1992; DeVries & Zan, 1995; Dinkmeyer, McKay & Dinkmeyer, 1980; Kostelnik, Soderman, Whiren & Stein, 1993; Kreidler, 1984; Slaby, Roedell, Arezzo & Hendrix, 1995; Waite-Stupiansky, 1997; Wolfgang & Wolfgang, 1995; Zimmer, 1993), few empirical studies have examined teacher behaviors when conflicts occur in the preschool classroom (Bayer, Whaley & May, 1995; Goncu & Cannella, 1996; Killen & Turiel, 1991; Kemple, David & Hysmith, 1996; Russon, Waite & Rochester, 1991). Thus, the main purpose of this study was to investigate the way teachers intervened in the peer conflicts of children between 2 and 4 years of age. A number of studies suggested that variables such as the level of education, years of experience, and the type of education affect the way teachers interact with children (Berk, 1985; Hayes, Palmer & Zaslow, 1990; Howes, Whitebook & Phillips, 1994; Kemple, David & Hysmith, 1996). However, they disagreed on which of these variables are better predictors of teacher effectiveness. Further, there is no evidence regarding the contributions of these variables to teachers' conflict interventions. This study therefore

also explored the confounding effects of teachers' educational background, work experience, the type of training, and center accreditation status to the incidence, latency and strategy of teachers' conflict intervention.

Another problem concerns the course of preschoolers' conflicts. Research on young children's conflicts has revealed important and fairly consistent information about the incidence, issues, behaviors, and resolution outcome of preschoolers' conflicts (Bakeman & Brownlee, 1982; Camras, 1984; Eisenberg & Garvey, 1981; Hay & Ross, 1992; Genishi & Di Paolo, 1982; Killen & Naigles, 1995; Killen & Turiel, 1991; Puttallaz & Sheppard, 1992; Mize & Ladd, 1990; Ross & Conant, 1992; Vespo and Caplan, 1993). This research suggests that children's conflict behavior changes with age. If teachers' response to children's conflicts vary as a function of children's age, they might be responding to changes in the behavior of the children. However, the developmental changes in the conflict behaviors of preschool children have not yet been systematically examined. Thus, this study also examined the relationship between the age of children between 2 and 4 years and the incidence, issues, behaviors, and the resolution outcome of their conflicts.

Rationale

Children's social and cognitive abilities have been found to change with increasing age (Astington, 1993; Dunn, 1987; Selman, 1980). Between the ages of 2 and 5, children's ability to understand the causal link between the intention of an act and its outcome is likely to increase (Astington, 1993; Dunn, 1987), along with an ability to use more complex reasoning to evaluate social situations (Crane & Tisak, 1995). Children's ability to "think about absent and hypothetical situations" also

increases, although their understanding of desires in terms of actions and consequent outcomes is still limited (Astington, 1993, p. 49). Rather than realizing that they can cause change in the world to bring about what they desire, the world is still seen as having to meet their desires (Astington, 1993; Bartsch & Wellman, 1995). However, increasing mastery of expressive / oral language between 2 and 5 years (Dunn & Slomkowski, 1992; Pflaum, 1986), combined with an increasing ability to understand their own intentions and to understand and anticipate the intentions of others (Astington, 1993; Dunn, 1987), enables preschoolers to more effectively communicate their own intentions and manipulate situations (e.g., teasing and appealing to adults for assistance) to achieve their own needs and wants. By adapting their methods of conflict intervention to these developmental changes, some educators propose that teachers can facilitate young children's development of effective conflict resolution strategies and to move them gradually toward higher levels of interpersonal negotiation strategies (Bredekamp, 1987; DeVries & Zan, 1995; Killen & Nucci, 1995).

Teacher strategies

In the early childhood curriculum literature, there are strong theoretical arguments for the use of mediating / facilitative strategies for teacher intervention in children's conflicts (Bredekamp, 1987; Britz & Richard, 1992; DeVries & Zan, 1995; DeVries, Haney & Zan, 1991; Hay, 1984; Killen & Turiel, 1991; Kostelnik, Stein & Whiren, 1988; Pope, 1986; Waite-Stupiansky, 1997). Such strategies are in keeping with a constructivist perspective, which view conflict and its resolution as an important part of the curriculum rather than as a problem to be managed (DeVries & Zan, 1995). Social conflicts are viewed as opportunities for children to advance their thinking and

social skills by recognizing the perspectives of others and for developing mutually agreeable solutions to problems (DeVries & Zan, 1995). Some researchers suggest that opportunities to communicate and interact with others contribute to children's development of social understanding and communicative competence. Teachers in classrooms dominated by mediation strategies "advocate a process of teachers assisting children in identifying the problem, legitimizing feelings relative to the issue, promoting the generation of possible solutions and the determination of a mutually agreeable solution, and implementing that decision" (Bayer, Whaley & May, 1995).

Consistent with Vygotsky's theory of the zone of proximal development and related notions of scaffolding as a way to facilitate children's development (Tudge & Rogoff, 1990), some educators and researchers emphasize the importance of varying the degree of guidance according to the needs and abilities of the children involved (Killen & Nucci, 1995), thereby reflecting sensitivity to children's developmental abilities (Bredekamp & Copple, 1997). Within the context of peer conflicts, helping children understand the intentions of others and learn to coordinate their own needs and intentions with those of others, require teacher strategies which foster the type of peer interaction and exchange that promote the growth of this understanding. Mediation strategies thus fall along a continuum of directiveness, ranging from the suggestion of words to use to resolve a conflict, to the provision of 'supportive presence' (Kemple, David & Hysmith, 1996). Thus, the role of the teacher here is one of mediator, and solutions to conflicts are ultimately determined by the children. By contrast, cessation strategies focused on the external management of conflict in order to terminate it. Solutions to conflicts are thus, adult generated and determined.

Although the use of mediation strategies are recommended by many early childhood educators, the extent to which they are actually used in the preschool classroom have not been investigated. Thus, the primary purpose of this study was to investigate changes in teachers' intervention strategies for children between 2 and 4 years. However, in order to better interpret teacher behavior, it is necessary to examine, in a single study, age-related changes in children's peer conflicts. To track developmental changes in children's conflict, the effects of age on the incidence, issues, behavior, escalation, solicitation of teacher assistance, and outcomes of the resolution of conflict were examined. Whether teacher intervention strategies are associated with children's conflict behaviors and the issues of conflict were also examined. Teacher background variables (the level and type of education, and years of experience teaching in early childhood settings) and center accreditation status were also examined as additional predictor variables for teacher intervention.

Young children's conflicts and conflict resolution

The increasing recognition by educators that peer conflict may be an important, perhaps necessary, contributor to moral and social development has encouraged an increase in studies of children's social conflicts and adult responses to these conflicts (DeVries & Zan, 1995; Hay, 1984; Killen & Turiel, 1991; Shantz, 1987a). However, developmental changes in the conflict behaviors of preschool children have not yet been systematically examined. Research on young children's conflicts has revealed important and fairly consistent information about the incidence, issues (the originating topic of dispute such as physical or psychological harm, distribution of resources, play/ideas or social convention), behaviors, and resolution outcome of children's

conflicts (Bakeman & Brownlee, 1982; Camras, 1984; Eisenberg & Garvey, 1981; Hay & Ross, 1992; Genishi & Di Paolo, 1982; Killen & Naigles, 1995; Killen & Turiel, 1991; Puttalaz & Sheppard, 1992; Mize & Ladd, 1990; Ross & Conant, 1992; Vespo and Caplan, 1993). Less certain, however, is the relation between the age of children within the 2 to 4 year range and the incidence, issues, behavior (level of insistence on own wants and needs), escalation (whether a conflict event became more intense as the argument continues) and resolution of children's conflict, and solicitation of teacher assistance.

Age and the duration and incidence of conflicts. Children's conflicts are relatively brief (Dawe, 1934; Eisenberg & Garvey, 1981; Hay & Ross, 1982). In one study the average duration was 23.63 seconds for 2 to 5 year-olds (Dawe, 1934). Only 13 of 200 conflicts were 1 minute or more in duration.

Conflicts are also fairly infrequent (Hay, 1984; Hay & Ross, 1982; Shantz, 1987). The observed incidence of children's conflicts in the naturalistic classroom setting varied from study to study depending on the age group studied and the method of data collection. Bayer, Whaley and May (1995) reported 1 every 2.63 minutes for infants and toddlers. Others reported 1 every 3.3 minutes (Genishi & DiPaolo, 1982) and 8.26 to 9.34 minutes for three and four year-olds (Killen & Turiel, 1991). Bakeman and Brownlee's (1982) investigation of age differences in possession conflicts revealed that toddlers averaged 1 conflict every 6.5 minutes while preschool children averaged 1 every 12.5 minutes. Thus, the overall frequency of conflicts appears to be higher for 1 and 2 year-olds than for 3 and 4 year-olds. However, this shift is gleaned from different studies using different observation procedures. Missing

are data from a single study spanning the entire 2 to 4 age range. These data are needed to confirm an apparent decline that mark either the emergence of conflict reducing social skills and dispositions or a shift in the issues that might produce conflict.

Age and the issues of children's conflicts. Object-oriented conflicts concerning the distribution of resources (violation of turn-taking or sharing) is the most common issue of conflict for preschool children in the United States (Corsaro & Rizzo, 1990; Hay, 1984; Killen & Turiel, 1991). One study reported that its incidence is higher for younger (1 to 2 year-olds) than for older (3 to 4 year-olds) children (Bakeman & Brownlee, 1982). Hay's (1984) review of other studies of preschool children's conflicts suggest an increase in the incidence of other, more socially-oriented issues of conflicts such as those involving the nature of and access to play, claims about opinions and beliefs (Corsaro & Rizzo, 1990; Shantz & Shantz, 1985), those involving psychological harm (teasing), physical harm (pushing, hitting, biting, kicking) and social order such as classroom rule violations (Killen and Turiel, 1991).

Age and the insistence of conflict behavior. Conflict resolution behaviors can be categorized according to the extent of insistence. Insistent behaviors are those that reflect lower levels of interpersonal understanding and ability to coordinate the perspectives, needs and wants of the self with that of others (Eisenberg & Garvey, 1981; Hay & Ross, 1982; Selman, 1980). Levels of insistence range from non-insistence (use of justifications and reasoning and other collaborative, conciliatory gestures such as apologizing, compromising, and negotiating), to low-insistence (use of passive ignoring), moderate insistence (use simple assertions and commands,

solicitation of peer or adult interventions), and high insistence (use of physical force, and the infliction of physical harm). Most studies of children's conflicts indicate that between 1 1/2 and 5 years of age, there is a decrease in the incidence of more insistent conflict behaviors and an increase in less insistent, more collaborative conflict behaviors (Camras, 1984; Caplan, 1991; Dunn & Munn, 1987; Hay & Ross, 1982; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984).

Age and conflict escalation. Certain behaviors, such as insistence during conflict, tend to elicit more insistent behaviors from the partner, thus, escalating the conflict (Eisenberg & Garvey, 1981; Hay & Ross, 1982; Perry, Perry & Kennedy, 1992). The combination of insistence and escalation lead to difficulties in the "meeting of minds" (Shantz, 1987b) and thus, less likelihood that conflicts will be resolved by the children. It may be that the lack of effective communication of intentions, needs and wants in these insistent behaviors makes the reaching of compromise and conciliation difficult (Genishi & DiPaolo, 1982). On the other hand, non-insistent behaviors involving non-coercive reasoning, compromising, and negotiative strategies that offer the partner more detail about the perspective of the speaker and what resolutions the speaker may find reasonable are less likely to escalate the conflict (Eisenberg & Garvey, 1981; Genishi & DiPaolo, 1982; Killen and Naigles, 1995; Ross and Conant, 1992; Shantz, 1987b).

Previous research does not provide data about whether age is associated with likelihood of escalation of conflicts. Teachers may respond to escalated conflicts and high levels of insistence with cessation strategies aimed at stopping the conflict. In contrast, non-escalated conflicts may elicit the use of mediation strategies or non-

intervention from teachers. If these behaviors change with age, this change might encourage teachers to use more mediation strategies in their intervention.

Age and the resolution of conflict and solicitation of teacher assistance.

Insistence and escalation may lead to tattling or direct solicitation of teacher assistance. When things are not going their way, some children will resort to reporting the conflict to the teacher, increasing the likelihood of teacher intervention. Russon, Waite, and Rochester's (1990) study of infants and toddlers' peer conflicts indicates that events that elicited teacher intervention were negative ones. These include conflicts over objects and caregiver attention, aggression, and protests / crying. The same study also found that infants and toddlers solicited 42.5% of all teacher interventions, and that infant solicitation was 80% effective in achieving teacher intervention. However, whether these data apply to older children is not known from previous research.

Types of conflict resolution (topic dropped, child-resolved or adult-solved) have been found to differ according to the issue of conflict. In the naturalistic classroom freeplay setting, adults generate more solutions to conflicts stemming from physical harm than from psychological harm, the distribution of resources, and rights to space and materials (Killen & Turiel, 1991). However, no studies have examined the resolution of conflict in relation to the age of children.

Teacher interventions in children's conflicts

Although age-related changes in the incidence, issues, insistence and escalation of conflict are suggested by previous research, these changes have not been documented in a single study spanning the 2 to 5 year-old age range. If the incidence, issues, and behaviors of conflict change with the age of children, then teachers'

intervention strategies might also change. However, little is known about the way teachers intervene in the peer conflicts of younger children across these formative years.

The frequency and latency of teacher interventions. Several studies have investigated the frequency of teacher interventions in children's peer conflicts in classroom settings (Bakeman & Brownlee, 1982; Bayer, Whaley & May, 1995; Killen & Turiel, 1991; Russon, Waite & Rochester, 1990). The frequency of teacher interventions ranged from 20% to 49.3% for infants and toddlers (Bakeman & Brownlee, 1982; Bayer et al, 1995; Russon et al, 1990), to 11% to 38% for children between 3 and 5 years (Bakeman & Brownlee, 1982; Killen & Turiel, 1991). These studies differed in the methods of data collection and operational definition of conflict. Nevertheless, percentages across the different studies indicate a lower intervention frequency for older preschool children than for infants and toddlers, suggesting the possibility that teachers' intervention is affected by the age of the children. However, with the exception of Bakeman and Brownlee's (1982) study of the possession disputes of toddlers and preschoolers, the frequency of teacher intervention as a function of age, has not been examined in a single study. Whether teachers respond more slowly to the conflicts of younger than older children, and whether they respond more rapidly to conflicts involving more insistent resolution behaviors is not known.

In some classrooms, teachers often do not intervene in children's conflicts. The Japanese nursery schools studied by Lewis (1984) represent this as a strategic approach to conflict intervention. Teachers in those programs are less interested in stopping aggression than in developing children's own ability to stop aggression. They often

encourage children to manage their own and other children's problems without teacher intervention. Although a number of researchers recommend that teachers should abstain from intervening when possible since engagement in the process of conflict resolution is a valuable experience for children's social and moral development (Corsaso & Rizzo, 1990; Genishi & Di Paolo, 1982; Killen & Sueyoshi, 1995; Lewis, 1984), little is known about the incidence and consequences of non-intervention in preschool classrooms.

Types of teacher intervention strategies. Most studies of teachers' contributions to children's developing conflict resolution skills focus on the effects of adult presence or absence on the outcomes of children's peer conflict resolution (Besevegis & Lore, 1983; Hay & Ross, 1982; Killen & Turiel, 1991). Only two studies examined more closely the nature of teacher intervention strategies on the promotion of children's peer interactions during peer conflicts (Bayer, Whaley & May, 1995; Russon, Waite & Rochester, 1990).

A third study by Kemple, David and Hysmith (1996) examined the frequency of several teacher intervention strategies which, theoretically, promote, disrupt, or restrict children's peer interactions in general. The effects of these teacher intervention strategies on children's actual peer interactions were not examined. In these three studies, teachers' intervention strategies were observed either in infant / toddler or in preschool and kindergarten classrooms. No single study observed teachers in classrooms spanning the entire age range from 2 to 4 years.

In this research, two main types of conflict intervention strategies were identified: mediation and cessation. These strategies differ according to the ownership

of the conflict resolution (whether children resolved the conflict with or without teacher assistance, or the teacher solved it for them).

Mediation strategies refer to interventions that focus upon helping the conflicting parties resolve and learn to resolve their own conflicts. Resolution within a mediation strategy is ultimately child-determined, with the teacher's direct or indirect assistance. On the other hand, cessation strategies refer to interventions that focus upon the external management of conflict situations by stopping conflicts, telling the children to stop fighting /arguing, telling or directing them on what they should do, or by removing the source of conflict for the children involved. When the focus of intervention is on the behaviors which lead to harm, hurt, and violation of rules for example, the tendency is for teachers to equate the conflict with inappropriate behaviors and to associate it with a generally negative experience for children (Shantz, 1987a; Shantz, 1987b). Such conflicts tend to be terminated by the teacher who functions as judge or umpire. Solutions to conflicts are teacher-generated and children are not typically involved in the resolution process. The difference between mediation and cessation strategies lies in the ownership of the outcome of conflict resolution.

The use of these strategies depends on the developmental level and age of the children involved. Since children's conflict behaviors are age-related (Camras, 1984; Caplan, 1991; Dunn, 1987; Dunn & Munn, 1987; Hay & Ross, 1982; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984), teachers' use of these strategies may also depend on the type of conflict behavior shown by children during a given peer conflict event.

Mediation strategies by teachers may yield more mature conflict resolution behavior in children. In a study comparing the behaviors of teachers and children from different types of kindergarten programs, children from the constructivist classroom, where teachers' use of mediation strategies predominated, are more collaborative in their conflict resolution behaviors and used higher levels of negotiation strategies than those from the classroom in which cessation strategies predominated (DeVries, Reese-Learned & Morgan, 1991).

The two key dimensions within a developmentally appropriate practice framework (as outlined in a set of guidelines set forth by The National Association for the Education of Young Children, aimed at improving the quality of care and education for young children in group settings) are age appropriateness and individual appropriateness (Bredekamp & Copple, 1997). Teachers should not only be responsive to developmental and individual differences in their curriculum planning, but also as they interact with children (Bredekamp & Copple, 1997). Thus, just as teachers can be expected to vary the frequency and latency of conflict intervention according to the age of the children, they can also be expected to vary their conflict intervention strategies.

When intervening in the conflicts of 2 year-olds with limited abilities to understand their own desires and intentions in relation to that of others', cessation seems to be a logical method of intervention. Younger preschool children's belief that others must meet their desires (Astington, 1993; Bartsch & Wellman, 1995), along with a limited ability to communicate intentions, could mean that their conflicts are more dominated by acts of physical insistence such as taking, tugging, pulling, grabbing, and even hitting. In addition, when their first attempt at getting what they

want fails, they usually “have very few, if any, alternative strategies to fall back on” (Slaby, Roedell, Arezzo, & Hendrix, 1995, p. 101). Teachers may respond to these behaviors with cessation strategies.

On the other hand, when intervening in the conflicts of older preschool children with increasing abilities to understand their own desires and intentions in relation to that of others, mediation seems to be an appropriate method of intervention. Three and four year-olds’ increasing abilities to understand the causal link between the intention of an act and its outcome (Astington, 1993; Dunn, 1987), along with their increasing ability to use complex reasoning to evaluate social situations (Crane & Tisak, 1995) and to communicate their intentions, could mean that their conflicts involve fewer acts of physical insistence such as taking, tugging, pulling, grabbing, and even hitting, and more acts of yielding, compromising, and negotiating. Teachers may respond more frequently with mediation strategies to assist and consolidate this process of conflict resolution.

Cessation strategies were the predominant ones used in infant and toddler classrooms (Bayer, Whaley & May, 1995; Russon, Waite & Rochester, 1990). Preschool teachers intervened more frequently to promote communication than did kindergarten teachers and they also used more redirections (Kemple, David, & Hysmith, 1996). The percentage of cessative, directive/restrictive strategies from the Bayer et al. (1995) infant/toddler study was 72%. Kemple et al. (1996) reported 37% in preschool and kindergarten, suggesting a drop with age. It must be noted though, that Kemple et al. (1996) examined teacher intervention strategies in terms of the broader context of facilitating general peer interactions and not peer conflicts per se.

However, these results, taken together with those from Russon et al. (1990) and Bayer et al. (1995), point to the possibility that teachers vary their intervention strategies according to the age of children involved. One purpose of the present study was to examine this possibility.

Conclusions about age-related changes in the nature of teacher interventions in preschool children's conflicts

Conclusions from previous studies about the effects of children's age on their conflicts and the way teachers intervened in these conflicts are not easy because of several methodological problems. First, differences in the operational definition of conflict that makes comparisons of children's peer conflicts across studies difficult. Some studies focused on "negative behaviors." Others examined "possession," "peer," or "all" conflicts. Yet others employed different criteria for identifying conflicts. For example, a protest or resistance to the action or inaction of another typically signals the onset of conflict (Hay, 1984). The end of the event is signaled by a clear indication of the resolution or non-resolution of the topic of dispute, when the topic is dropped and neither party continues to pursue that issue, or when there is a change in topic (Dawe, 1934; Eisenberg & Garvey, 1981; Killen & Naigles, 1995; Killen & Turiel, 1991). Some researchers employ a 10-second interval in which neither party continues to pursue the issue of dispute, to signal the end of the conflict event (Laursen & Hartup, 1989; Russon, Waite & Rochester, 1990). Others use a change in the topic of conflict to signal a new conflict (Dawe, 1934; Killen & Naigles, 1995; Killen & Turiel, 1991). Thus, even though no time lapses between a shift in the issue, a shift signals the onset of a new conflict event.

This method of identifying conflicts according to shifts in the issue of disputes has been widely used in a number of studies of children's conflicts (Dawe, 1934; Killen & Naigles, 1995; Killen & Turiel, 1991). It has been helpful in identifying the range of issues of conflict. However, children's conflicts are dynamic (Shantz, 1987b). It is not uncommon for the issue of protest / conflict to vary as the conflict evolves. Identifying conflicts as distinct, unrelated events according to the issue of each conflict limits the possibilities for examining the dynamic, evolving nature of children's conflicts and how it may elicit teacher intervention. These effects are minimized when the incidence, issues, insistence, escalation, and resolution of conflict are examined in a single study using a common operational definition of conflict.

Second, the behavior sampling and on-site live coding methods of observation employed in some studies might yield smaller incidence of conflict than coding from audio or videotapes; given the brief duration of conflict, the less insistent, non-escalated conflicts could easily go unnoticed. Systematic videotaping of individual target children would minimize these effects.

Third, some studies investigated children's conflict in homogeneously age grouped classrooms (Bakeman & Brownlee, 1982; Russon, Waite & Rochester, 1991; Corsaro & Rizzo, 1990). Others observed children in mixed-age classrooms (Bayer, Whaley & May, 1995; Dawe, 1934; Genishi & Di Paolo, 1982). Some studies only examined the conflicts of infants and toddlers (Russon, Waite & Rochester, 1991), whereas only one observed different classrooms with children spanning the ages from 2 to 5 years of age (Bakeman & Brownlee, 1982). Conclusions about the effects of age on children's conflicts can only be inferred by piecing together the findings of different

studies. This effort severely compromised variations from study to study in observation methods and settings. Examining all three age groups (2, 3, and 4 year-olds) in homogeneously grouped classrooms in a single study would yield a better assessment of the effects of children's age on their peer conflicts.

Fourth, previous studies of children's conflicts conducted in the naturalistic classroom setting typically used between one and three classrooms, counting all conflicts observed within a given time period. Although ideally suited to assess individual differences, it permits the addition of multiple conflict events for some children to the data set, thereby increasing the possibility of over representing these individuals. This method of data collection, combined with on-site live coding methods increases the possibility of over representing the more strident conflicts of conflict prone children. This problem of non-independence is exacerbated when teacher interventions are of interest because the data then over represent the responses of teachers to these particular children. These problems are reduced when the number of classrooms is increased and target children are systematically observed so that each child has equal opportunity to contribute once to the data pool. The chances of over-representation by conflict prone children is greatly minimized when only one conflict event generated by each target child observation is admitted for analysis.

Statement of the Problem

Although the potential value of peer conflict has been recognized by many theorists and researchers, knowledge about it in real-life naturalistic classroom settings is limited (Shantz, 1987b). This is particularly true for research on teachers' conflict intervention behavior (Goncu & Cannella, 1996; Killen & Turiel, 1991). While the

frequency, issues, behaviors, escalation, and resolution of preschool children's peer conflict have been examined in numerous studies, these variables and teacher intervention have not been examined together in a single study in the naturalistic classroom setting for the 2 to 5 year-old age range. In spite of the potential effects of some methodological biases in previous studies, there is some indication that the conflict behaviors of young children and teachers' interventions vary within this age range. However, these variations have not yet been systematically investigated. In addition, given the increasing recognition of the value of mediation strategies in children's development of conflict resolution skills, little is known about the extent to which these strategies are being used by teachers in preschool classrooms.

Statement of the Purpose

The primary purpose of this study was to examine teacher interventions in young children's peer conflicts. However, in order to better interpret teacher behavior, teacher interventions must be examined in relation to children's peer conflicts. Thus, this study has a two-fold purpose. The first purpose was to examine changes in peer conflict behavior in preschool age groups. This behavior will presumably reflect developmental changes in the incidence, issues, insistence, escalation, solicitation, and resolution of conflicts. The second purpose was to investigate whether and how teacher interventions differed in the classrooms of 2, 3, and 4 year-olds. Teacher intervention was examined in terms of its frequency, latency and strategy. Secondary analyses of 3 teacher variables (educational level, early childhood training and work experience) and center accreditation status were also conducted to explore the effects of these variables on teacher intervention.

Purpose 1: Investigation of children's conflict behaviors

The first aim was to investigate the peer conflict behaviors of children between the ages of 2 and 5 years. This purpose is a necessary precursor of the study of teacher interventions since these interventions presumably will reflect developmental changes in the children. The following specific hypotheses were examined.

Hypothesis 1: There were no expectations for age differences in the incidence of conflict for children between 2 and 5 years. On one hand, extrapolation of findings from previous studies suggest that the incidence of conflict will decrease as children get older (Bakeman & Brownlee, 1982; Bayer, Whaley & May, 1995; Dawe, 1934; Genishi & Di Paolo, 1982; Killen & Turiel, 1991). Bakeman and Brownlee's (1982) investigation of age differences in possession conflicts during freeplay time revealed that toddlers showed more conflicts than preschoolers. Other studies of children's conflicts in the naturalistic classroom setting indicate that the frequency of conflict is higher for 1 and 2 year-olds than for 3 and 4 year-olds, although the wide variation in their methodology and focus limits direct comparisons of the findings. However, these studies varied greatly in their methodology and focus. Some examined only one type of conflict (Bakeman & Brownlee, 1982). Others examined only the younger (Bayer, Whaley & May, 1995), older (Killen & Turiel, 1991), or mixed age groups (Genishi & Di Paolo, 1982), making it difficult to draw conclusions.

On the other hand, conflicts are very much a part of the social world, both for children and for adults. Conceivably, the incidence is likely to remain unchanged across the age groups although the issues of conflict may shift. Thus, there are no

expectations for age differences in the incidence of conflict for children between 2 and 5 years.

Hypothesis 2: the second hypothesis is that the conflict issue will change.

Younger children are expected to have more conflicts involving physical harm and the distribution of resources, and fewer conflicts involving psychological harm, play ideas and social conventions, than older children. There is some empirical evidence that the availability of objects to share does not make a difference in the frequency of conflicts among young children (Hay, 1984), suggesting that the real issue underlying many object disputes may not just involve object control, but behavior or social control (Shantz, 1987b). As children become older during the preschool years, they move from solitary and parallel play to more associative and cooperative play (Parten, 1932) and from functional and constructive play to more dramatic and cooperative play (Smilansky & Shefatya, 1990). Thus, it is conceivable that the incidence of distribution issues will decrease while issues associated with play ideas will increase. Children also become increasingly verbal with age (Pflaum, 1986). Other research of sibling conflicts revealed an increase in verbal forms of teasing behavior beginning in the second year (Dunn, 1987). Thus, it is conceivable that psychological harm will increase and physical harm during conflict will decrease with age during the preschool years.

Research on toddlers' sibling conflicts in the home setting indicated significant increases in the frequency with which both siblings and mothers referred to social rules in the course of conflict (Dunn, 1987). Attendance in day care continues to increase young children's exposure to the social world and its rules and conventions. With such

increased exposure, their awareness of social conventions can be expected to increase. Thus, issues arising from disagreements about classroom, school, or other social rules can also be expected to increase with age.

Hypothesis 3: Younger children's conflict behaviors are expected to be more insistent than that of older children. With increasing age, children became more able to effectively communicate their thoughts, needs, and wants. This, combined with their increasing ability to understand the intentions of others will reduce the use of tugging, taking, pulling, grabbing, pushing and hitting as strategies to achieve own desires, and thus, reducing the level of insistence of conflict behavior.

Hypothesis 4: Younger children's conflicts are expected to escalate more frequently than those of older children. Although previous studies have not directly examined this aspect of children's conflict, they have documented that more insistent conflict behaviors tend to escalate the conflict (Eisenberg & Garvey, 1981; Perry, Perry & Kennedy, 1992; Hay & Ross, 1982). Since insistence was found to be associated with the age of children, it can also be expected that escalation will also be associated with the age of children.

Hypothesis 5: Younger children are expected to solicit teacher assistance more often than older children. As with the escalation of conflict, age-related changes in preschool children's solicitation of teacher assistance in the classroom setting have not been documented in previous research. However, differences in children's social and cognitive development support this expectation. Younger children are less able than older children to effectively communicate their thoughts, needs, and wants, and

consequently are less able to resolve their own conflicts. When they are not able to resolve the conflicts, they ask for help.

Hypothesis 6: Younger children are expected to resolve fewer of their conflicts than older children. The ability to more effectively communicate and understand intentions increases the likelihood of successful conflict resolution by children. Since this ability increases with age, the likelihood of child resolved conflicts could be expected to also increase with age.

Purpose 2: Investigation of teacher interventions

The second aim was to investigate whether and how the peer conflict interventions differed for teachers of 2, 3, and 4 year-olds. It was expected that peer conflict interventions of teachers of younger and older preschool children would be different. The following specific hypotheses were examined.

Hypothesis 1: The frequency of teacher intervention will diminish between 2 and 4 years. Developmental differences in children's cognitive and social competencies led to this expectation. Between the ages of 3 and 4, children's ability to understand the causal link between the intention of an act and its outcome is likely to increase (Astington, 1993; Dunn, 1987; Dunn & Slomkowski, 1992), along with their ability to use more complex reasoning to evaluate social events (Crane & Tisak, 1995).

Thus, with increasing age, preschool children are better able to get along with each other and to solve their own problems. There are also changes in the incidence of different types / issues of conflict, from conflicts arising from the distribution of objects at younger ages to those arising from verbal arguments about ideas, opinions, and the structuring of play at older ages (Corsaro & Rizzo, 1990; Hay, 1984; Killen &

Turiel, 1991). More non-insistent, collaborative behaviors including the use of language, reasoning, and conciliatory strategies (compromising and negotiating) occur among preschoolers than among toddlers (Camras, 1984; Caplan, 1991; Hay & Ross, 1982; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984). On the other hand, insistent behaviors (use of physical force or resistance, infliction of physical or psychological harm, use of simple assertions and commands) decrease within this age range.

Some researchers suggest that insistent behaviors during conflict tend to escalate the conflict while non-insistent behaviors tend to decelerate it (Eisenberg & Garvey, 1981; Perry, Perry & Kennedy, 1992). Thus, it is conceivable that teachers will intervene more often when insistent conflict behaviors have escalated the conflict. This possibility is evident in the data collection methodology used by Dawe (1934) to investigate the quarrels of 200 preschool children in the naturalistic indoor classroom and outdoor playground setting. The observer was instructed to "move quickly to the scene of the action as unobtrusively as possible . . . (and) start the stop watch immediately upon noting evidences of a struggle" (Dawe, 1934, pp.142). The four most frequently observed types of conflict behaviors across all age groups in this study involved simple, insistent behaviors such as: precipitory behaviors (e.g., knocking over others' blocks or one person snatching another's toy), aggressive behaviors (e.g., hitting), retaliative behaviors (e.g., attacking in response to an attack), and objecting behaviors ("NO!" or "STOP!").

Conceivably, those quarrels that were noticed by the observers in the Dawe (1934) study may have been the ones that were physically and / or verbally heightened

so as to be attention getting. Many of those that remained at the amicable disagreement level may have remained unnoticed. More recent research suggests that highly insistent behaviors, especially those involving the physical harm of others, are significantly related to teacher interventions which result in teacher generated solutions to children conflicts (Killen & Turiel, 1991). Insistent behaviors are also highly likely to lead the partner to respond with more insistent behaviors (Eisenberg & Garvey, 1981), thus escalating the conflict and drawing teachers' attention to it. However, studies have not directly examined the frequency of teacher intervention directly in relation to the issues, behaviors and the escalation of children's conflict.

Hypothesis 2: The latency of teacher intervention will be longer for the conflicts of older than for younger children. The lag time between the onset of conflict and the point of teacher intervention will be shorter for younger than for older children. Again, developmental differences in children's social competencies led to this expectation. Since older children are more able than younger children to verbally communicate their intentions and understand others' intentions (Astington, 1993, Crane & Tisak, 1995) they are likely to have fewer conflicts involving physical harm. As illustrated by the Dawe (1934) study, conflicts that were noticed by the observers may have been those that were physically and / or verbally heightened so as to be more attention getting. Conflicts involving physical harm are conceivably more physically and / or verbally heightened than other types; these are more readily noticed by teachers, who in turn, will respond more quickly to them. Alternatively, teachers may see younger children as having more limited conflict resolution skills and thus, needing more adult assistance. Thus, teachers will respond more quickly.

Hypothesis 3: Teachers' intervention strategies will vary according to the age of the children. Teachers of younger children are expected to be less likely to use mediation strategies than teachers of older children. Because the conflict behaviors of younger children are more insistent and possibly involve more physical harm, teachers can be expected to not only respond more quickly to them, but also to respond by stopping the conflict. Younger children are also more egocentric, thus more insistent, and less able to see others' view point. Their conflict resolution skills are also more limited. It is thus conceivable that teachers will be less likely to try to get the conflict parties to see each other's point of view and to try to negotiate the conflict, especially after they have stopped the physical harm. Thus, teachers can be expected to use mediation strategies less often when they intervene in the conflicts of younger than older children.

Effects of teacher and center background variables on teacher intervention

A secondary purpose was to examine the effects of teacher and center background variables on teacher interventions. This was undertaken as exploratory analysis in order to identify factors contributing to teacher behaviors. A number of studies suggested that variables such as the level of education, years of experience, and the type of education affect the way teachers interact with children (Berk, 1985; Hayes, Palmer & Zaslow, 1990; Howes, Whitebook & Phillips, 1994; Kemple, David & Hysmith, 1996). However, they disagreed on which of these variables are better predictors of teacher effectiveness. Further, there is no evidence regarding the contributions of these variables to teachers' conflict interventions.

Other studies suggested that certain setting variables such as the type of activities and the role of adults affect the way conflicts are resolved in the classroom (Killen & Turiel, 1991). Schools that differ in the degree of teacher-directedness of activities during freeplay time were found to differ on the frequency of teacher intervention (Killen & Turiel, 1991). This study therefore explored the effects of teachers' educational background, work experience, the type of training, and center accreditation status to the incidence, latency and strategy of teachers' conflict intervention.

Assumptions

One assumption made in this study was that individual teachers are fairly consistent in the way they approach children's conflicts even though some variations may occur depending on the context of each situation throughout the day (DeVries, Haney & Zan, 1991; Kreidler, 1984; Wolfgang & Wolfgang, 1995). Thus, observations of the way they intervene in children's conflicts across two or more full freeplay periods will represent their typical classroom behaviors.

CHAPTER 2

METHODS AND PROCEDURES

Research Design

This observational study investigated teacher's conflict interventions in the naturalistic classroom setting. Observations of conflict events were made in 25 classrooms with 2, 3, or 4 year-olds. Data were gathered by videotaping 400 individual target children in these classrooms during freeplay time. The unit of analysis was the peer conflict event.

Conflict data from previous findings were typically obtained by global classroom observations (Bayer, Whaley & May, 1995; Corsaro, 1990; Dawe, 1934; Killen & Turiel, 1991), or by observing individual target children for a specified period of time (Bakeman & Brownlee, 1982; Russon, Waite & Rochester, 1991). All conflicts observed within the time frame were admitted for analysis. Since particular children may contribute multiple conflict events to the data pool, some children are over-represented, thereby embedding a dependent structure on data made up of conflict events. In this study, only the first peer conflict event generated by each target child observation was included in the analysis.

There were two main reasons for this method of data collection. One concerned the independence of data. An issue concerning the generalizability of the data involves pooling data across individuals and the assumption of independence of the data in contingency analysis (Laursen & Hartup, 1989). When pooled data is obtained from few subjects, some subjects may contribute more than others, thus distorting the data by allowing data from a few children to dominate the data set.

Although some researchers argue that pooling such data is appropriate when the focus is upon events, not individuals (Bakeman & Gottman, 1986), this study attempted to increase the independence of the data and decrease the likelihood of disproportionate contributions, by systematically observing a large number of different children from different classrooms. Although some observations in each class were expected to be 'no conflict' observations, each child in each classroom had an equal chance of contributing at least one conflict event to the data set.

A second reason pertains to differences in the conflict interventions of teachers of younger and older children. Although repeated measures of fewer children will provide information about individual differences in the way teachers respond to conflicts, one-time measures of larger numbers of children will provide more information about general patterns of child conflict and teacher intervention across age groups and settings. Since interest was in these general patterns, gathering one-shot data for a large number of individuals across the age groups seem to outweigh the advantages of a more in depth study of fewer subjects within each age group.

Site Recruitment and Selection

A list of all licensed childcare centers providing full-day care services was purchased from a major non-profit statewide childcare referral agency. This list consisted of centers located in two counties within 10 radius-miles from a state university. Centers on this list were first categorized into two sets, one for each adjacent county, and then randomly ordered for contacting. Centers were contacted by phone in early August, four weeks prior to the beginning of the 1996-97 school year. During this initial phone call, information about the expected enrollment, class

grouping and length of freeplay time was obtained. Centers with homogeneously grouped classes, approximately 30 to 60 minutes of freeplay time blocks, and minimum enrollment of at least 9 children in the 2 year-old classes and 16 in the 3 and 4 year-old classes were recruited. Calls were made to the first 10 centers on each list, then in increments of 5 from each list, until a total of 12 qualifying centers were obtained.

A recruitment letter to solicit center participation (Appendix A) and a center survey designed to obtain center background information (Appendix C) was mailed to each of the 12 qualifying centers. The background information (level and type of education, years of experience and classroom position) of preschool teachers were solicited. Information on enrollment limits, daily schedule (to control for length of freeplay time - approximate range of 30 to 60 minutes) and tuition rates as well as percentage of subsidized care families for the whole center were also obtained. Information from this survey was used for center selection in order to control for the length of freeplay time and socio-economic status of children. Centers with all three age groups and with at least 9 children with two adults in the 2 year-old classes, and at least 16 children enrolled in the 3 and 4 year-old classes with two adults, were given priority in selection. The order in which completed surveys and consent forms were received was also used as criteria for selection. The first 8 centers that returned the center survey form and have the highest rate of returns on the consent forms were included in the study.

Most previous studies of young children's conflicts in the naturalistic classroom freeplay setting involve only 1 to 3 classrooms rather than the 25 used here (Bakeman

& Brownlee, 1982; Bayer, Whaley & May, 1995; Killen & Turiel, 1991; Laursen & Hartup, 1989; Russon, Waite & Rochester, 1990). Laursen and Hartup (1989) collected conflict data by observing several focal children for six 6-minute intervals in 3 different classrooms. Still other researchers observed focal children for two 20-minute sessions in a single classroom (Russon et al., 1990). Others recorded conflict events as they occurred during 30-minute observation sessions, twice per week, over a period of 4 months in a single classroom (Killen & Turiel, 1991). Bakeman and Brownlee (1982) collected data from two different classrooms, one toddler and one preschool, observing 'several target children' for periods of 5 minutes each.

In the present study, a total of 25 classrooms from 8 different centers were included. There were 8 classrooms of 2 year-olds, 9 of 3 year-olds, and 8 of 4 year-olds. One class at each age group was obtained from 6 of the 8 centers. The seventh center provided one 2 year-old class, and two 3 year-old classes. This was because the mean age of the children in the second 3 year-old classroom, once the school year had begun and enrollment finalized was just below 4 years. The eighth center provided one 2 year-old class, one 3 year-old class, and two 4 year-old classes. Consent forms (Appendix B) for participation were obtained from the center director, classroom teachers and the parents of children in each classroom. Children without parental permission for participation were not observed.

Participants

There were 400 children and 67 teachers in this study. Of the 400 children, 193 were girls and 207 were boys; 72.8% were Caucasian, 20.5% were African-American, and 6.8% were Asian, Middle-Eastern, and others. They were enrolled in 2 (n = 95, M

= 2 years 5 months, ranging from 1 year 6 months to 3 years 3 months, \underline{SD} = 4.1 months), 3 (n = 156, \underline{M} = 3 years 5 months, ranging from 2 years 8 months to 4 years 5 months, \underline{SD} = 4.4 months), and 4 (n = 149, \underline{M} = 4 years 5 months, ranging from 3 years 2 months to 5 years 7 months, \underline{SD} = 4.3 months) year-old classrooms from 8 childcare centers located in an Eastern suburban / metropolitan area. The average return rate of consent forms from parents by classroom was 93%, ranging from 76% to 100%. Appendix D provides a breakdown of the racial composition and the rate of return of consent forms for the children and teachers from each age group.

Of the eight centers, two were employer-sponsored, one was a corporate childcare center, two were religious centers, and three were for-profit day care centers. Only two of these eight centers were NAEYC accredited. All childcare centers provided full-day care services and served predominantly middle-class families who paid for childcare services at unsubsidized market rates. The range of the weekly tuition was \$93 to \$195 for 2 year-olds and \$90 to \$171 for 3 and 4 year-olds. Percentage of families who qualified for subsidized childcare in these centers were less than 5% (range was 0% to 3.75%). This selection feature was included because most previous studies of children's conflicts have been conducted with similar middle- and upper-middle class U.S. populations. Findings from similar populations would provide more meaningful comparison of data.

The return rate for teachers in the participating classrooms was 100%. A total of 67 teachers were involved in the operation of the target classrooms in this study: 29 were lead teachers (and co-teachers); 38 were assistants or permanent substitutes. Of these teachers, 65.7% were Caucasian, 19.4% were African-American, and 14.9% were

from other ethnic backgrounds. In some classrooms, part time parent volunteers, student interns, and /or other visitors were present for part of the videotaping time. They were excluded from the videotaping.

Teacher qualifications and overall program quality for all centers met the standards set forth in the State's childcare licensing regulations. Five levels were used to categorize teachers' educational experience: less than high school (level 1), high school diploma (level 2), less than bachelor's degree (level 3), bachelor's degree (level 4), and more than bachelor's degree (level 5). Their mean level of education was 3.21 ($SD = 1.02$). Lead teachers ($n = 29$) had a mean of 3.59 ($SD = 0.91$). Most (39.7%, $n = 27$) had a bachelor's degree. Assistant teachers and permanent substitutes ($n = 38$) had a mean level of 2.92 ($SD = 1.02$). Most (42.1%, $n = 16$) held a high school diploma. Overall, only 20.6% ($n = 14$) of the teachers in this study had specialized training in early childhood education. A higher percentage of lead teachers had specialized training (34.5%) than assistants and substitutes (10.5%). The average number of years of early childhood teaching experience was 6.3 years ($SD = 5.8$, ranging from 0 to 25 years). Lead teachers averaged slightly higher than assistant teachers and substitutes. They averaged 7.2 years ($SD = 6.2$, ranging from 1 to 25 years). Assistants and substitutes averaged 5.6 years ($SD = 5.4$, ranging from 0 to 24 years). Appendix E (Center Profiles) provides a brief description of each center in the study.

Procedure

Classroom Setting. All children were videotaped in the naturalistic classroom setting during freeplay or center time. In all 25 classrooms during this time, children

were free to move from one play area to another. Freeplay time ranged from 30 to 60 minutes in these classrooms. Similar standard child-sized preschool furniture and play materials and equipment were used in all classrooms.

Training of observers. Two independent observers (the researcher and an assistant) identified conflict events during classroom videotaping. Training of the assistant consisted of 8 hours of actual classroom observations and practice videotaping, in addition to out-of-classroom hours of studying the videotaping manual (Appendix F), observing and identifying peer conflict events on videotapes of children during freeplay time, learning to identify the onset and end of each event.

One week prior to actual data collection, the researcher and the assistant established inter-observer reliability by simultaneously videotaping in a 4 year-old preschool classroom (not a part of the study), following an identical list of 9 target children and procedures detailed in the videotaping manual (Appendix F). Cohen's Kappa coefficients (Cohen, 1960) were obtained for each of the two inter-taper reliability sessions. For each target child observation, a decision was made about the presence of a conflict event, no conflict, decision to skip a target child for taping, and decision to drop the taping of a target child for each target child's taping session. The Kappa obtained was 0.77; percent agreement was 88.9%.

An additional measure of reliability was obtained half way (about 5 weeks) into the actual data collection phase with a list of 10 children in the same 4 year-old classroom. The Kappa obtained was 0.85. The percent agreement was 90%. Some researchers view Kappas over 0.75 as excellent (Fleiss, 1981). The mean Kappa here was 0.81; the mean inter-observer agreement was 89.4%.

Acclimatization of Subjects to Researcher and Research Equipment. Two different observers were involved in the videotaping of children's peer conflicts. Prior to actual data collection, each spent 20 to 30 minutes during an initial classroom visit, moving about the room with the equipment. Practice taping was conducted during this time to allow the children and teachers time to get used to the presence of researchers and research instruments, and at the same time, to allow the observers practice in setting up and using the equipment. Instructions for videotaping are detailed in Appendix F. The use of a 7" directional microphone with the small hand-held Sharp View Cam enabled the videotaping of each child from a relatively unobtrusive distance yet obtaining audible taping of conversations for coding. Observers monitored the clarity of conversations of the children under observation with the use of an earphone plugged into the camcorder during taping.

Video taping of target children in the classroom freeplay setting. Videotaping began during the last day of September, four weeks after the beginning of the new school year. Videotaping of target children was completed within 2 to 3 weeks in each classroom. The time span for data collection for this study was 12 weeks.

For each classroom, the names of children with parental permission for participation were listed on the "Randomly Ordered List of Children for Videotaping" form (Appendix G). Each child was videotaped for up to two separate 5 consecutive-minute sessions or until the end of a peer conflict event, whichever came first. Following the methodology used in other studies of young children's conflicts, 10 seconds after the last exchange within a conflict event marked the end of that event (Russon, Waite & Rochester, 1990). If child A was involved in a conflict with child C

when child A was the target child under observation, child C would still be observed as a target child when C's turn to be observed came up at a later time. The unit of analysis was the event of peer conflict, and not individual children.

Videotaping of a target child was considered completed when one conflict event was recorded within the two 5-minute taping sessions or when both 5-minute sessions involved no conflict event. Taping was also terminated and the target child was considered to have contributed no conflict to the data pool, when tapings included either 2 'dropped' (terminated) taping sessions and 1 no-conflict session, or 3 'dropped' taping sessions. Target children who were playing by themselves, and were physically more than 2 radius feet away from other children in the classroom, were skipped when their turn came up. When this happened three times with a particular child, that child was considered a no-conflict child.

Five-minute taping sessions were 'dropped' if, after taping began, target children moved from child-centered activities with or near peers to a teacher-directed activity or began playing alone more than 2 radius feet away from other children. Videotaping of target children was 'skipped' when they were absent from the classroom, became involved with a visitor or a no-consent child, or were engaging in solitary play, 2 radius feet away from other children. Videotaping of target children were 'interrupted' or 'aborted' when target children became involved in interactions with a no-consent child or a visitor, or left the room for any reason, after a 5-minute taping session had begun. These aborted taping sessions were not counted toward decision on the conflict status. Target children who were absent for more than 1 week

after the taping in all the classrooms of the school has been completed were dropped from the study. Two of the 400 children fell into this category.

Videotapes were coded for the nature of children's conflict (conflict status, issues of children's conflict, conflict behavior, escalation and child solicitation), and the nature of teacher intervention (frequency of interventions, latency of intervention, strategy of intervention). Coding categories and the definition of terms are detailed in the Conflict Coding Manual (Appendix H).

Measures

The behavioral measures for each conflict event are summarized below. A more detailed definition of terms is presented in Appendix J.

Child conflict measures

- A. "Conflict status" refers to whether the target child participated in at least one peer conflict event within the 10-minute observation period. Each observation period was classified as a conflict or a no-conflict observation ($Kappa = 0.81$).
- B. "Issues of conflict" refers to the topic of dispute. Each conflict event was coded for the topic of dispute. Five categories were identified: physical harm (hitting, biting, punching), psychological harm (name-calling, teasing), distribution of resources (fairness issues such as violation of sharing or turn taking, grabbing, taking), play ideas (who will do what, how, when and where), and social-conventional issues such as the violation of class or school rule about running indoors, eating with hands instead of spoon, how to take turns, or cleaning up time and procedures ($Kappa = 0.96$).
- C. "Insistence" refers to the level of insistence of conflict behaviors that children show either just prior to the point of teacher intervention, or at the end of that conflict

episode, whichever comes first. Each conflict event was scored for one of four levels:

1. Non insistence refers to behaviors involving the use of reasoning and other conciliatory behaviors such as yielding, compromising and negotiating (Eisenberg & Garvey, 1981; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984).

2. Low insistence refers to behaviors involving the use of non-physical, indirect, passive resistance such as ignoring others (Eisenberg & Garvey, 1981) and not giving in or compromising.

3. Moderate insistence refers to behaviors involving NO infliction of physical or psychological harm, but involves standing firm, direct verbal or non-verbal insistence of own wants (Eisenberg & Garvey, 1981), solicitation of third-party teacher or peer intervention (Russon, Waite, & Rochester, 1990), and use of verbal simple assertions and commands (Eisenberg & Garvey, 1981; Genishi & DiPaolo, 1982), without physical assertions of own needs and wants.

4. High insistence refers to behaviors involving the use of physical force or resistance (Dawe, 1934; Eisenberg & Garvey, 1981; Siegal & Kohn, 1959) and infliction of physical harm and / or psychological harm (Eisenberg & Garvey, 1981; Killen & Turiel, 1991), with or without verbal.

For non-teacher-intervened events, the behavior of the last turn within the event was noted. For each teacher intervened event, the more insistent behavior of the two turns immediately prior to teacher intervention was noted ($Kappa = 0.89$).

D. "Escalation" of conflict refers to whether the intensity and insistence of conflict increased during a peer conflict event. Each conflict event was coded for the presence of escalation (Kappa = 0.93).

E. "Child solicitation" refers to whether children involved in a peer conflict event asked for teacher intervention. Each conflict event was coded for the presence of child solicitation (Kappa = 1.0).

F. "Resolution" refers to whether a conflict event was child resolved or not (Kappa = 1.0).

Teacher measures

A. "Intervention" refers to whether teachers intervened in a peer conflict event regardless of whether children solicited the intervention. Each conflict event was coded for the presence of teacher intervention (Kappa = 1.0).

B. "Latency of intervention" refers to the rapidness of intervention. It was measured by the number of seconds between the onset of the event (from the first protest), to the point of teacher intervention (percent agreement = 94%).

C. "Intervention strategies" refers to the strategies that teachers used when they intervene in a peer conflict event. Teacher strategies were classified as cessation or mediation. Cessation strategies were those aimed at ending the conflict by external management of the conflict through prescription of behavior, distraction, or removal of the source of conflict. Mediation strategies were those that encouraged and/or help the parties involved resolved their own conflicts. Non-intervention was not considered a strategy in this study. One strategy was noted for each teacher-intervened conflict event (Kappa = 0.88).

Teacher and Center Variables

Teachers with greater formal early childhood education preparation and greater number of years working in early childhood settings may be more cognizant of adult's role in facilitating children's development of morality and conflict resolution skills as advocated by early childhood educators and researchers than those with lesser preparation (Kemple, David & Hysmith, 1996). However, teachers' educational background and work experience were not found to be significant sources of influence on their general intervention strategies in a study of teacher interventions in peer interactions by Kemple, et al., 1996. In this study, the extent to which these teacher variables may affect teachers' intervention strategies was examined. Background information related to the level of education, work experience and the type of education were obtained using the Center Survey Form (Appendix C).

Teacher variables were defined as follows:

- A. "Level of Education" referred to the level of formal education attained. This ordinal variable consisted of 5 levels: less than high school, high school diploma, less than bachelors, bachelor degree, more than bachelor degree.
- B. "Years of experience" referred to the number of years a teacher has worked in early childhood settings.
- C. "ECE Training" referred to whether teachers' education included specialized early childhood education. For example, teachers with CDA certification are considered to have ECE-related education (but less than bachelor degree). However, teachers with non-ECE related degrees but have the 90-classroom hours of child development coursework as required by local childcare licensing agencies are not considered as

having specialized ECE training. This is because these classes do not involve accompanying organized, supervised field work and do not cover the same amount of content covered in formal degree-granting teacher education programs.

In this study, center variable consisted of the accreditation status of a child care center. "Center accreditation status" referred to whether a childcare center is NAEYC accredited.

Coding of videotaped segments

Two independent coders who were not involved with the videotaping and were blind to the hypotheses of the study coded the tapes. Videotapes of children in freeplay that were not a part of the data pool were used in the initial training of the two independent coders. This first phase was aimed at familiarizing them with the coding categories and decision rules detailed in "The Conflict Coding Manual" (Appendix H). Then, from the pool of 322 videotaped conflict events, 14 events (4.35%) were randomly selected for the second phase of training. The researcher and the two coders viewed these segments together and discussed the codes.

The next 108 events (33.54% of the total pool) were used to establish inter-coder reliability. The overall Kappa obtained for each categorical variable ranged from 0.73 to 1.0 for the two independent coders as well as between each independent coder and the researcher. The average percent of agreement for the latency of conflict was 94%, with a range of 92 to 100%. The overall Kappas for each of the variables are: 0.89 (range of 0.76 to 1.0) for insistence; 0.96 (range of 0.87 to 1.0) for issue of conflict; 0.93 (range of 0.86 to 1.0) for the escalation of conflict; 1.0 for child solicitation, the resolution of conflict, and teacher intervention; and 0.88 (range of 0.73

to 1.0) for teacher strategy. Appendix I provides a summary of the Kappas and percent agreements for each measure and coder.

CHAPTER 3

RESULTS

The purpose of this study was to examine teacher interventions in preschool children's peer conflicts and how these interventions varied with the age of the children. However, to better understand the teachers' behavior it was necessary to take the incidence and kind of child conflicts into account. For this reason, the first section describes age variations in the conflicts of 2, 3, and 4 year-olds. These analyses use chi-square and ANOVAs to evaluate the contribution of age to the incidence, issues, escalation and insistence of the conflict, and to the child's solicitation of assistance from the teacher. The second section describes variations in teacher interventions as a function of the age of the children. Chi-square tests and ANOVAs were used to evaluate the associations between age and measures of frequency, latency and strategies of teacher intervention.

The third and final section explores variations in teacher interventions as a function of teachers' background and center accreditation status. Logistic regression analysis was conducted to examine the possible contributions of 3 teacher variables of level of education, years of teaching experience and the type of education (whether related to ECE) on the incidence and strategy of intervention. Linear regression analysis was conducted to examine the possible contributions of these 3 teacher variables on the latency of intervention. Possible differences in the backgrounds of teachers among the three age groups and in NAEYC accredited and non-accredited schools were also examined using chi-square analyses.

Children's Conflicts

Chi-square tests and ANOVAs were used to examine associations across the three age groups. When significant associations between variables were indicated by chi-square tests, logistic regression analyses were conducted to examine the nature of the association. Oneway ANOVAs were used to examine the effect of age on the level of insistence of conflict behavior. Post hoc tests (Scheffe) were also used to compare differences between pairs of age groups when the ANOVAs indicated significant differences.

Overall, the 400 target child observations generated 322 conflict events. Of the 400 target children observed, 78 (19.5%) were not involved in a conflict when observed as the target child. However, 38 of these 78 children were involved in at least one conflict event when other children were observed as target children. A total of 360 out of 400 children (90%) observed were involved in at least one conflict event; 287 (71.8%) were involved in 1 to 2 events; 56 (14%) were in 3 events. Only 17 (4.2%) of the 400 children were involved in 4 or more events. Thus, most of the children in the study contributed to the data pool and very few were over-represented. These data are presented in Appendix K.

Of the 322 conflict events, 35.7% were mixed-sex events, 34.7% were boys-only events, and 29.6% were girls-only events. Two year-olds have the highest percentage of mixed-sex events (45.8%) while 3's and 4's have about the same (33.3% and 32.3% respectively). On the other hand, 3 and 4 year-olds have higher percentages of same-sex events than 2 year-olds. Preliminary analyses revealed no significant

gender effects for the level of insistence, escalation and issues of conflict, and the solicitation of teacher assistance for these three groups.

According to hypotheses 1 to 6, the incidence, issues, insistence escalation, solicitation of teacher assistance, and the resolution of conflict were expected to change with the age of children. The data are shown in Table 1.

Hypothesis 1: Table 1 shows the incidence of conflict over the 3 age groups. Of the 400 target-child observations, 322 yielded a peer conflict event within the 10-minute observation period. The incidence of conflict across all three age groups was 80.5%. Two year-olds had the lowest incidence of peer conflicts (75.8%), while that of three and four year-olds were slightly higher (81.3% and 82.7%, respectively). However, a 3 (age) x 2 (incidence) chi-square test failed to reveal significant differences for the three age groups ($\chi^2(2) = 2.05, p > 0.1$). Previous findings of the frequency of conflict indicate that infants and toddlers have 1 conflict every 2.63 to 5.1 minutes (Bayer, Whaley & May, 1995; Bakeman & Brownlee, 1982), and that three and four year-olds have 1 conflict every 3.3 to 9.94 minutes (Corsaro & Rizzo, 1990; Genishi & Di Paolo, 1982; Killen & Turiel, 1991), suggesting that younger children have more frequent conflicts than older children. Only the Bakeman and Brownlee (1982) study compared toddlers with preschoolers for possession conflicts. No other studies spanned the entire age range from 2 to 4. Nevertheless, differences in the frequency of conflict for younger and older children suggested by these studies are not found here.

Previous studies indicated that children's conflicts are very brief. The average from one study was 23.63 seconds and most were 1 minute or less in duration (Dawe,

1934). These findings were replicated in the present study. Of the 322 conflicts, the mean duration from the onset to the end of the conflict or the point of teacher intervention was 13.97 seconds ($SD = 16.93$, ranging from 1 to 155 seconds).

Hypothesis 2: Younger children were expected to have more conflicts involving physical harm and the distribution of resources, and fewer conflicts involving psychological harm, play ideas, and social conventions, than older children. Table 1 shows the frequency of conflict issues found in the present study. The data supports this hypothesis. In keeping with Dawe's (1934) findings, 2 year-olds have the highest proportion of distribution-related conflicts (77.8%) while these conflicts were lower in 3 and 4 year-olds (58.7% and 46.8% respectively). Previous studies report that issues about the distribution of resources, materials, and space were the most common among all three age groups (Arsenio & Killen, 1995; Corsaro & Rizzo, 1990; Hay, 1984; Killen & Turiel, 1991). Bakeman and Brownlee's (1982) study of the possession conflicts indicated that toddlers averaged 1 conflict every 6.45 minutes while preschoolers averaged 1 every 12.5 minutes. Dawe's (1934) analysis of 200 quarrels of children indicated that disputes over objects decreased from 73.5% for 2 - 2½ year-olds, to 38.4% for 4 - 5 year-olds.

An overall 3 (age) \times 5 (issues) chi-square test revealed significant differences across the three age groups ($\chi^2 (10) = 43.34, p \leq 0.001$). Individual chi-square tests were also conducted to test whether the differences between the three age groups were significant for each issue by collapsing the 5 issues into 2 so that each issue was tested against an aggregate of the other 4. Results indicate significant age differences for all issues except social conventional issue. These chi-square values are shown in Table 1.

Only 7.8% of all conflicts involved physical harm, and only 3.7% involved psychological harm. Two year-olds have the highest percentage for physical harm (13.9%) and the lowest for psychological harm (1.4%). Three year-olds have the lowest percentage for issues involving physical harm (2.4%), but have the highest for issues involving psychological harm (7.1%). By contrast, four year-olds have relatively lower percentage for physical harm than two year-olds but slightly higher than three year-olds (9.7%) and about the same percentage for psychological harm as two year-olds but this percentage is much higher than that for three year-olds (1.6%). Overall, these findings are consistent with previous reports that harm, especially physical harm, was rare in conflicts among toddlers as well as among older children (Caplan, Vespo, Pederson & Hay, 1991; Eisenberg & Garvey, 1981; Hay & Ross, 1982; Ross & Conant, 1992). However, it is surprising that four year-olds would have a much higher percentage of physical harm (9.7% versus 2.4%) and much lower psychological harm (1.6% versus 7.1%) than the three year-olds. Examination of the breakdown of proportions of the issue of physical harm by age groups revealed that contrary to the pattern for the issue of distribution, 3 year-olds have the smallest proportion (12%, $n = 3$) compared with 2 and 4 year-olds (40%, $n = 10$ and 48%, $n = 12$, respectively).

While the majority of conflicts (58.4%) were about the distribution of resources, issues around children's play ideas account for the next largest type of conflict at 25.5%. A breakdown of this percentage according to the age of children revealed that this issue accounted for only 5.6% of two year-olds' conflicts while it accounted for 26.2% and 36.3% of three and four year-olds' respectively. The

frequency of issues involving differences of opinion about play ideas is higher for older children. A similar pattern was found with conflicts involving social-conventional issues such as disagreements about classroom rules and routines. Only 5% of all conflicts fall under this category. Two year-olds have the lowest (1.4%) incidence of this type of issue. The percentage is higher for three and four year-olds (5.6%), indicating that awareness about social conventional aspects of the classroom culture increases with age.

Hypothesis 3: Younger children's conflict behaviors were expected to be more insistent than that of older children. Table 1 shows the frequency and percentages of insistence levels across the 3 age groups. Previous studies indicate that between 1 ½ and 5 years of age, there is a decrease in the incidence of insistent conflict behaviors and an increase in collaborative behaviors (Camras, 1984; Caplan, 1991; Dunn & Munn, 1987; Hay & Ross, 1982; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984). In this study, insistent behaviors are those that do not reflect awareness or willingness to consider others' wishes or intentions. These were divided into 4 levels according to the intensity involved: non-insistence, low insistence, moderate insistence, and high insistence. Each conflict event was assigned one of these levels based on the more intense of the last two turns at the end of the event or just prior to the point of teacher intervention.

While 37.3% of the conflicts involved behaviors at the non-insistence levels, 42.5% were at the moderately insistent level and 15.5% were at the high insistence level. Only 4.7% were at the low insistence level. Table 1 shows that children's conflict behaviors become less insistent with increasing age, supporting this

hypothesis. The mean level of insistence was 2.82 for 2 year-olds. It dropped to 2.42 for 3 year-olds, and 2.04 for 4 year-olds. An oneway ANOVA revealed significant differences in the mean level of insistence of conflict behavior across the three age groups ($F(2,319) = 11.70, p \leq 0.001$). There was evidence for a linear association ($p \leq 0.001$). A post hoc test (Scheffe) indicated significant mean differences between all three age groups ($p \leq 0.05$). Analysis of the effect of physical harm on insistence of conflict behavior, however, revealed no significant effect ($F(1,320) = 2.11, p > 0.1$).

Hypothesis 4: Younger children's conflicts were expected to escalate more than that of older children. While previous studies discussed the likelihood of escalation of conflict in relation to the types of conflict (Eisenberg & Garvey, 1981; Laursen & Hartup, 1989; Sackin & Thelen, 1984) and the competence of children's behaviors during conflict (Puttalaz & Sheppard, 1992), none have specifically examined developmental changes in the escalation of children's conflicts. In this study, only 64 out of 322 conflicts involved escalation. Two year-olds have the highest proportion of escalated conflicts (26.39%) compared with the three (21.43%) and four year-olds (14.52%). However, a 3 (age) x 2 (escalation) chi-square test failed to reveal significant difference among the age groups ($\chi^2(2) = 4.35, p > 0.1$). Thus, the hypothesis that younger children's conflicts will escalate more than older children's cannot be accepted. Table 1 shows the breakdown of the percentage of escalated conflict events for the three age groups.

Conceivably, conflicts are most likely to escalate when physical harm is involved. In order to examine this possibility, the 5 original types of issues of conflict

were collapsed into 2 types of issues, physical harm versus an aggregate of the other 4 types. However, a 2 (physical harm) x 2(escalation) chi-square test also revealed no evidence that physical harm was related to the escalation of conflict ($\chi^2(1) = 1.12, p > 0.1$).

Another possibility is that conflicts involving more insistent behaviors are most likely to escalate. A oneway ANOVA comparing the mean level of insistence for escalated and non-escalated conflicts indicate significant differences ($F(1,320) = 25.693, p \leq 0.001$). The overall mean level of insistence is 2.36 ($n = 322$). The mean level of insistence for escalated conflicts is 2.98 while that for non-escalated conflicts is 2.21. 51.6% of conflicts with the highest level of insistence also involved escalation. While 21.9% of conflicts with moderately insistent and 26.6% with non-insistent behaviors also involved escalation, escalation was not involved in conflicts with low insistent behavior.

When the mean level of insistence is calculated for escalated and non-escalated conflicts for each age group, 2 year-olds were found to have a higher mean level of insistence (3.53) than 3 year-olds (2.93) and 4 year-olds (2.50). Table 2 presents this data. The same pattern was found for non-escalated events although the overall mean levels for escalated events is higher than that for non-escalated events. Two year-olds have the highest mean level (2.57), followed by 3 (2.28), then 4 year-olds (1.96). Interestingly, for each age group, when the mean level of insistence for escalated conflicts was calculated for teacher-intervened conflicts, 2 year-olds still have the highest mean level at 3.87, but 4 year-olds now have a slightly higher level than 3 year-olds (3.78 vs. 3.69). This data is presented in Table 3. A similar pattern was

found for teacher-intervened, non-escalated conflicts. Two year-olds have a mean level of 3.50, while 3 year-olds have 3.00, and 4 year-olds have 3.19.

Hypothesis 5: Younger children were expected to solicit teacher assistance more often than older children. In this study, children solicited teacher assistance in only 7.8% of all conflicts: 1.4% ($n = 1$) of the conflicts of two year-olds involved solicitation of teacher intervention, while 9.5% ($n = 12$) and 9.7% ($n = 12$) of the three and four year-olds' conflicts involved solicitation. A 3 (age) x 2 (solicitation) chi-square test conducted to examine the association between children's age and their solicitation of teacher intervention is not significant ($\chi^2 (2) = 5.27, p > 0.05$). However, the results of a logistic regression analysis indicated that 2 year-olds are about 3 times more likely than 4 year-olds to not solicit teacher intervention ($p \leq 0.05$, odds ratio = 3.83). There are no significant differences between the likelihood of non-solicitation between 3 and 4 year-olds or between 2 and 3 year-olds. Thus, contrary to expectations, younger children are not more likely to solicit teacher assistance than older children.

Teachers in all three age groups responded to all child solicitation for interventions. These figures are stronger than those reported by Russon, Waite & Rochester (1990). In that study, infants were only 80% effective in achieving teacher intervention.

While analyses also revealed no significant associations between solicitation of teacher assistance and escalation, and between solicitation and the issue of physical harm, insistence of conflict behavior is significantly associated with solicitation of intervention ($F (1, 320) = 12.45, p \leq 0.001$). The mean level of insistence for solicited

conflicts is 3.12 versus 2.30 for non-solicited conflicts. Of all solicited conflicts, 88% involved moderate insistence and 12% involved high insistence. None involved non- and low insistence.

Hypothesis 6: Younger children were expected to resolve fewer of their conflicts than older children. Depending on the age of children and the type of structure and activities involved during freeplay time, previous studies found that 10% to 19% of the solutions to children's conflicts were child generated, 23% to 35% remained unresolved (topic was dropped), and 9% to 38% involved adult intervention (Bakeman & Brownlee, 1982; Killen & Turiel, 1991). In this study, children were observed only during non-teacher directed freeplay activities. A much higher percentage was found for child resolved conflicts in this study than in that reported by Killen & Turiel (1991) for 3 and 4 year-olds. Overall, children resolved 37.3% of their conflicts. 33.3% of 3 year-olds' and 47.6% of the 4 year-olds' conflicts were child-resolved. Killen & Turiel (1991) reported only 10% to 19% during freeplay or center time for three and four year-olds. A 2 x 3 chi-square test revealed significant association between child resolution and the three age groups ($\chi^2 (2) = 10.12, p \leq 0.01$). Table 1 shows the incidence of child-resolved conflicts across the three age groups. A logistic regression analysis revealed that 4 year-olds were 1 ½ times more likely than 2 year-olds to resolve their own conflicts (odds ratio = 1.66, $p \leq 0.00$). However, the difference in likelihood between 2 and 3 year-olds, and 3 and 4 year-olds were not significant.

Teacher Interventions in Children's Conflicts

A second purpose of this study was to examine teachers' interventions in children's peer conflicts in relation to the age of children and the nature of conflict. Chi-square tests were used to examine the association between children's age and the incidence and strategy of teacher intervention. Linear regression was used to examine the relationship between children's age and the latency of intervention.

According to hypotheses 1, 2, and 3, teacher interventions were expected to vary as a function of child age. Data for intervention frequency, latency and strategy are shown in Table 4.

Hypothesis #1: Teachers were expected to intervene more frequently in the conflicts of younger children. Specifically, previous studies report that teachers intervened less in the conflicts of three to five year-olds than in those of infants and toddlers (Bakeman & Brownlee, 1982; Bayer, Whaley & May, 1995; Killen & Turiel, 1991; Russon, Waite & Rochester, 1990). These differences are found here. Teachers intervened in 37 out of 72 peer conflicts (51.4%) of two year-olds, 39 out of 126 peer conflicts (31%) of three year-olds, and 25 out of 124 conflicts (20.2%) of four year-olds. Table 2 shows the results of this analysis. A 3 (age) by 2 (intervention) chi-square analysis revealed significant associations ($\chi^2(20) = 20.65, p < 0.05$). Thus, a logistic regression analysis was also conducted to determine the effect of child age on the frequency of teacher intervention. Result indicates that teachers of 2 year-olds are twice as likely to intervene than teachers of 4 year-olds (odds ratio = 2.15, $p \leq 0.001$). However, there are no significant differences in the likelihood of intervention between teachers of 3 and 4 year-olds.

Logistic regression analyses conducted to examine the effects of insistence on escalation of conflict, and of escalation on the frequency of intervention also revealed significant effects. For each increase in the level of insistence, conflicts are twice as likely to escalate (odds ratio = 1.97, $p \leq 0.001$). Thus, the more insistent the conflict behavior, the more likely it is for the conflict to escalate. Escalated conflicts were also found to be twice as likely as non-escalated conflicts to involve teacher intervention (odds ratio = 2.04, $p \leq 0.001$). Teachers intervened in 57.8% of all escalated events, but in only 24.8% of those that were not escalated. Insistence was also found to have a significant effect on the frequency of intervention ($F(1, 320) = 213.97$, $p \leq 0.001$). The mean level of insistence for teacher intervened conflicts is 3.43 while that for non-teacher intervened conflicts is 1.88. Teachers did not intervene at all when conflict behaviors were at the non-insistence and low insistence levels. However, they intervened in 42.3% of the conflicts at the moderate insistence level and in 86.0% of the conflicts at the high insistence level.

A significant effect on the frequency of intervention was also found for the overall issues of conflict ($\chi^2(5) = 20.69$, $p \leq 0.001$). The majority of the teacher intervened conflicts involved the distribution of resources (62.4%). Issues of physical harm and play/ideas comprised 11.9% each. Issues about social convention and psychological harm comprised 7.9% and 5.9% respectively. Since previous research indicated that teachers tend to intervene most often in conflicts involving physical harm, the 5 issues of conflict were collapsed into 2, with physical harm versus an aggregate of the other 4 categories. Surprisingly, results indicated no significant effect of physical harm on the frequency of intervention ($\chi^2(1) = 3.48$, $p > 0.05$). However,

regardless of issue, children were 100% effective in soliciting teacher intervention.

Teachers intervened in all solicited conflicts.

Hypothesis #2: The latency of intervention latency was expected to be shorter for younger than for older children. This hypothesis was supported by present findings. Latency was measured by the number of seconds between the onset of conflict (point of first protest) and the point of teacher intervention, regardless of whether teachers were aware of the conflict from the onset. The mean latency of intervention across the three age groups was 14.89 seconds. It increased with the age of children from 8.97 seconds for two year-olds, to 16 seconds for three year-olds, and to 21.92 seconds for 4 year-olds. An oneway ANOVA was conducted to examine differences in the latency of intervention among the three age groups. Results support the expectation that teachers intervene more quickly in the conflict of younger children than older children ($F(2, 98) = 6.47, p \leq 0.01$). Results also indicate the presence of a linear trend ($F = 12.55, p \leq 0.001$). The breakdown of the latency of teacher intervention across the three age groups is presented in Table 4. Post hoc tests (Scheffe) indicated that while the mean differences are not significant between 2 and 3 year-olds (-7.03 seconds, $SE = 3.240, p > 0.1$), and between 3 and 4 year-olds (-5.92 seconds, $SE = 3.62, p > 0.1$), it is significantly different between 2 and 4 year-olds (-12.95 seconds, $SE = 3.655, p \leq 0.01$).

Younger children were found to be more insistent, and insistence was found to lead to escalation of conflict, which then lead to teacher intervention. However, the results of an oneway ANOVA revealed that the latency of intervention is significantly longer for escalated than non-escalated events ($F(1, 99) = 11.36, p \leq 0.001$). The

mean latency of intervention for escalated conflicts was 21.14 seconds as opposed to 11.28 seconds for non-escalated conflicts. When each age group was assessed separately, results of an oneway ANOVA indicated the latency for escalated conflicts was higher than that for non-escalated conflicts in each age group ($p \leq 0.05$). Two year-olds averaged 14.8 seconds ($SD = 11.92$) for escalated conflicts, while 3 and 4 year-olds averaged 23.46 ($SD = 19.64$) and 28.33 ($SD = 19.91$) seconds respectively. Two year-olds averaged 5 seconds ($SD = 5.84$) for non-escalated conflicts, while 3 and 4 year-olds averaged 12.27 ($SD = 9.66$) and 18.31 ($SD = 16.69$) seconds respectively. Regardless of age, teachers took longer to intervene in escalated conflicts. These findings are presented in Table 5.

Further analysis using ANOVA to assess the effect of solicitation on latency also revealed significant effects ($F(1, 99) = 42.58, p \leq 0.001$). The latency of intervention is much longer for child solicited teacher-intervened events (29.04 s) than for non-solicited teacher intervened events (10.24 s). When the latency of intervention for child-solicited conflicts is calculated separately for each age group, 2 year-olds averaged 5 seconds ($n = 1$) for solicited conflicts and 9.08 seconds ($n = 36, SD = 10.07$) for non-solicited conflicts. This pattern is the opposite of that for 3 and 4 year-olds whose averages were higher for solicited (29.33 s, $SD = 17.33$; and 30.75 s, $SD = 16.32$, respectively) than non-solicited conflicts (10.07s, $SD = 7.99$; and 13.77s, $SD = 16.33$). For older children, teachers took longer to intervene when the children asked for assistance.

Analyses indicated no significant effects of the issues of conflict on the latency of intervention ($p > 0.05$). A breakdown of the mean latency for the distribution issue

by age group revealed that the latency of intervention for 2 year-olds (9.24 s, SD = 10.58) is shorter than that for 3 (16.29 s, SD = 16.48) and 4 (22.0 s, SD = 17.34) year-olds although these differences were also not significant.

Given the fairly large standard deviations of the latency on intervention, further analyses were conducted to examine whether the differences occurred between and within classrooms. The standard deviation for the latency of intervention within each classroom ranged from 0.58s to 22.38s. Linear regression analysis revealed significant differences in the latency of intervention between classrooms ($F(1,99) = 13.30, p \leq 0.001$). However, no significant differences in the mean latency of intervention was found between classrooms of accredited ($n = 6$ classrooms, mean latency = 13.6 s, SD = 14.91) and non-accredited ($n = 19$ classrooms, mean latency = 15.4 s, SD = 14.93) centers.

Hypothesis #3: Teachers of older children were expected to use mediation strategies more often than teachers of younger children when they intervene in the peer conflicts of children. In this study, the use of mediation strategies increased from approximately 16% for two year-olds, to 30.89% for three year-olds, and then dropped to 16% for four year-olds. Although there appears to be a fairly large difference in the proportion of mediation strategies for two and four year-olds versus three year-olds, a $3(\text{age}) \times 2(\text{strategy})$ chi-square test conducted to examine whether teachers' choice of strategy was dependent on the age of children indicated no significant differences ($\chi^2(2) = 3.01, p > 0.1$). Examination of the strength of association between strategy and age revealed a very weak association (gamma coefficient = 0.06). Thus, although there

is some curvilinearity in the table, the age of children and teacher strategy are relatively independent.

Since this finding was unexpected, further analyses were conducted to examine the conditions under which mediation strategies were used when teachers intervened in children's conflicts. Specifically, chi-square analyses were conducted to examine the effects of escalation, insistence and issues of conflict on the strategy of intervention.

Chi-square analysis examined the association of the escalation of conflict on the strategy of intervention revealed no significant effect ($p > 0.05$). Neither were significant associations found for insistence and physical harm. However, there was a significant association between solicitation and strategy ($\chi^2(1) = 3.94, p = 0.05$). Only 36% ($n = 9$) of the child solicited conflicts were intervened with a mediation strategy while 64% ($n = 16$) were intervened with a cessation strategy. Analyzed separately for each age group, the only 2 year-olds' solicited conflict was intervened with a mediation strategy (100%, $n = 1$). For 3 year-olds, 50% of the solicited conflicts were intervened with a mediation strategy. Four year-olds attracted cessation strategies: only 16.7% ($n = 2$) of teacher intervention were mediation strategies, and 83.3% ($n = 10$) were cessation strategies. Interestingly, the pattern was the same for non-solicited conflicts for all 3 age groups, with mediation strategies accounting for a smaller proportion than cessation strategies. In sum, although the overall chi-square indicated significant association between solicitation and strategy, significant associations were found only for 2 year-olds when the analysis was conducted separately for each age group. However, these percentages suggest that teachers were less likely to use mediation strategies with older children who solicited assistance.

Teacher Background, NAEYC Accreditation Status, and Teacher Intervention

Previous studies suggest that certain teacher variables such as the level of education, years of teaching experience and the type of education (whether related to ECE) may affect the way teachers intervene in children's peer interactions (Kemple, David & Hysmith, 1996). Other studies suggest that certain setting variables such as the type of activities and the role of adults affect the way conflicts are resolved in the classroom. Schools that differ in the degree of teacher-directedness of activities during freeplay time were found to differ on the frequency of teacher intervention (Killen & Turiel, 1991). Thus, conceivably, the latency, frequency and strategy of intervention could differ between schools that differ in the nature of the program. They could also differ for teachers with different educational and work backgrounds.

In this study, regression analyses were conducted to examine possible effects of the three teacher background variables (the level of education, the years of experience, and the whether education involves formal training in early childhood education) and the accreditation status of the schools on the incidence, latency and strategy of intervention. Before these possibilities are investigated, chi-square analyses were first conducted to see if the centers differed in terms of the nature of the program and if teachers differed in terms of their educational and work background.

There were 67 teachers in the analyses that examined possible background differences of the teachers in the different age groups and centers. Analyses revealed no significant differences in the backgrounds of teachers between the 3 age groups and between the centers. Appendix E provides a summary of teachers' backgrounds within the center profiles.

Several aspects of the program of the 8 centers were very similar as a result of the criteria of selection for participation. The children were similar in their socio-economic background (working families using full-day childcare services) and only one out of the 400 children in the study was identified as a special needs child (Down Syndrome). The freeplay time for each class was at least 30 minutes long and children were observed only when they were participating in non-teacher directed activities during freeplay time. In addition, all centers met minimum state childcare licensing requirements. One aspect of the program on which these centers differed was the NAEYC accreditation status. Two of the centers were NAEYC accredited. Thus, the backgrounds of the teachers in this study do not significantly differ and the centers appear to differ mainly in terms of their accreditation status.

Logistic regression analyses with these 3 teacher background predictor variables was conducted to determine the predictive values of teacher education, experience and type of education on the frequency, latency and strategy of intervention. Results indicated no significant effects of teacher variables on the frequency and latency of intervention. The level of education was the only variable that significantly predicted teacher strategy ($p < 0.05$). Table 6 presents the regression table for this analysis. The odds ratio for the level of education is 1.90, indicating that for each increase in the level of education, the odds of a teacher using a mediation strategy is about 2 times over the odds of using cessation strategy.

Previous research reported that the frequency of teacher intervention varied between schools with different types of activities (more or less structured) during freeplay time (Killen & Turiel, 1991). Thus, it is conceivable that the latency and

strategy of intervention could also differ among centers. In the present study, although an 8(center) x 2 (intervention) chi-square test revealed significant differences in the frequency of intervention among the 8 centers ($\chi^2 (7) = 13.96, p \leq 0.05$), no statistically significant differences were found for the latency of intervention ($F = 0.63, p > 0.05$). Since the distribution of the frequency of mediation strategies among the 8 centers is very uneven, with many very low frequencies (0 in three of the schools to 2 and 3 in three others), chi-square test was not conducted. However, differences are apparent in the distribution presented in Table 7. The overall percentage of mediation strategies used by teachers in this study was only 21.8% (n = 22 out of a total of 101 teacher interventions). The percentage of mediation strategies used in the 2 NAEYC accredited centers is at least twice as much as that in the other 6 centers (50% and 52.9% versus 0% to 21.4%).

Since the two highest percentages of mediation came from the 2 NAEYC accredited centers in this study, analyses were also conducted to examine whether accreditation status significantly predicts the frequency, latency and strategy of intervention. Analyses revealed no significant associations between accreditation status and the latency of intervention ($F (1, 99) = 1.04, p > 0.1$), and between accreditation status and the frequency of intervention ($\chi^2 (1) = 2.07, p > 0.1$) for teachers in accredited and non-accredited schools. However, accreditation status was found to be significantly associated with the strategy of intervention ($\chi^2 (1) = 21.41, p \leq 0.001$). Mediation strategies accounted for 51.7% of the teacher-intervened conflicts in the 2 accredited centers while cessation accounted for 48.3%. Chi-square analyses

revealed significant associations between accreditation status and teacher strategy for all three age groups. Table 8 presents these data.

In summary, the data indicate that while the issues, insistence and resolution of conflict significantly changed with children's age, the incidence and escalation of conflict, as well as child solicitation of teacher assistance did not. In addition, although significant age effects were found for the frequency and latency of teacher intervention, teacher intervention strategies were not affected by the children's age or specific child conflict behaviors. Mediation strategies were infrequently used, especially with 4 year-olds. Additional analyses revealed that teachers' level of education and the NAEYC accreditation status of the centers are significant predictors of teacher strategy.

Table 8
Accreditation Status and Teacher Strategy
for All Three Age Groups

CHAPTER 4

DISCUSSION

Examination of previous studies revealed two main gaps. The first involves limited information about young children's peer conflicts and teacher interventions in these conflicts. Although preschool children's peer conflicts have been examined in numerous previous studies, age variations between 2 and 5 years and teacher intervention have not been examined together in a single study in the naturalistic classroom setting. The purpose of the present study was to fill this gap.

A second gap comes from the limitations of previous studies. These limitations stem from small sample sizes (1 to 3 classrooms), non-independence of data, and on-site coding of conflict behaviors. The problem of non-independence is exacerbated when teacher interventions are of interest because the data then over represent the responses of teachers to high conflict children. To reduce these problems in this study, observations were conducted in 25 classrooms using a common operational definition of conflict. Systematic videotaping of target children enabled a more complete representation of conflict events. Children were observed in homogeneously grouped classrooms, and no more than one conflict per child was admitted to the data pool, making it easier to draw conclusions about developmental differences in children and teachers.

Findings are discussed in four sections. The first section discusses children's conflicts in terms of the contributions of children's age to the incidence, issues, escalation and insistence of the conflict, and to children's solicitation of assistance from the teacher. The second section discusses the frequency, latency and strategy of

teacher intervention in relation to the age of the children. Teacher background variables and accreditation status of the schools to teacher intervention are discussed in the third section. In the last and fourth section, implications for future research are discussed.

Children's Conflicts and Conflict Resolution

Efforts to piece together a developmental sequence of children's conflict behaviors from previous research yielded the possibility that the incidence of conflict is higher for younger children than for older children. However, this possibility is limited by variations in the methodology and focus of prior studies. In this study, a direct examination of changes in the incidence of conflict for children between the ages of 2 and 5 years failed to reveal a significant decline in the overall number of conflicts. Conceivably, the failure to find significant decline in the incidence of conflicts across the 3 age groups here could be due in part to differences in the method of data collection. Young children's conflicts are brief. Live coding or scanning might easily miss conflict events. Admitting multiple conflicts for individual children without ensuring that each child has equal opportunity to contribute to the data pool might also lead to an over representation of older, conflict prone children.

Social conflicts are natural exchanges that occur between two or more people when incompatible activities or actions occur (Deutch, 1973; Filley, 1975; Hay, 1984). Thus, regardless of age, it is conceivable that interpersonal conflicts are very much a part of people's lives, especially in the social setting. Just as adults have conflicts within the social settings of home and work, young children also have conflicts within the social settings of home and school. It is thus conceivable that age have no

significant effect on the incidence of peer conflicts for children between 2 and 5 years old. Although the incidence of conflict does not change with age, conflict issues do.

Between 3 and 5 years, children's ability to understand the intentions of acts and their outcomes increases (Astington, 1993). So does their ability to use more complex reasoning to evaluate social events (Crane & Tisak, 1995). Thus, they not only engage in more peer interactions but they are also more able to get along with each other and to resolve their own conflicts. Support for developmental differences in these cognitive and social abilities are reflected in the finding that younger children argue less often about play ideas than older children do. In this study, conflicts about play ideas grow five fold between 2 and 4 years. In contrast, consistent with the findings of Bakeman and Brownlee (1982), the frequency of distribution-related conflicts decreases within this age range.

In this study, the decrease in the incidence of physical harm between 2 and 3 years is accompanied by an increase in the incidence of psychological harm. Research of sibling conflicts in the home setting reported the emergence of verbal teasing during the second year of life (Dunn, 1987). Such behaviors are indicative of children's understanding and anticipation of other's feelings and intentions, and reflect "a surprisingly sophisticated grasp of what would irritate or upset" others (Dunn, 1987, p. 95). In this study, this increase is observed through the third year. However, by the fourth year, the incidence of issues involving physical harm increases while that for psychological harm decreases. This reversal is puzzling. Perhaps, by 4, children are less intrigued by the powers of teasing behaviors and once again, are reverting to the use of physical harm in getting own wishes.

Issues involving social conventions increases. An increase is accompanied by a similar increase in the frequency with which children solicit teacher assistance. These increases are consistent with Dunn's (1987) research on sibling conflicts in the home setting. By the second year, children were able to refer to social rules as well as the feelings of others during conflict events. They also began to appeal to mothers for help especially after they have been hurt, physically or psychologically, by the sibling, reflecting an increasing understanding of social rules (Dunn, 1987). Conceivably, such appeals to adults for help could also reflect an increasing understanding of the role and power of adults as enforcers of social rules.

Not only do the conflict issues change, but the level of insistence also differs for the 3 age groups. Younger children's conflict behaviors are more insistent than that of older children. More insistent conflicts are also more likely to escalate. This change accompanies a sharp increase in the number of conflicts resolved by older children. With age, children seem to acquire the social and verbal competencies needed to deal with disagreements that were largely about play ideas. Presumably, disputes about ideas favor calmer and more intellectual behavioral strategies during the course of conflict.

Teacher Interventions in Children's Conflicts

The first hypothesis that the frequency of teacher intervention would vary with the age of the children was supported by present findings. Teachers intervene more frequently in the conflicts of 2 year-olds than that of 3 to 5 year-olds. This expectation was based on teachers' recognition of developmental changes that occur in children's cognitive and social competence. With increasing age, children's ability to understand

the causal link between the intention of an act and its outcome increases along with their ability to use more complex reasoning to evaluate social events. Their ability to communicate their own and to understand others' intentions also increases between 2 and 5 years. In this study, older children resolve more of their own conflicts, thus, reducing the need for teacher intervention. They also are less insistent during conflict and have relatively fewer conflicts about physical harm and more about differences of ideas and play. Conflicts are also less likely to escalate when behaviors were less insistent. Teachers might even be less likely to notice conflicts at this age and consequently, less likely to intervene. On the other hand, when conflict behaviors were more insistent, escalation was more likely, and thus, conflicts were more noticeable to adults in the room, increasing the likelihood of adult intervention.

The second hypothesis that the latency of teacher intervention would increase within this age range was also supported by present findings. As with the frequency of teacher intervention, developmental differences in children's cognitive and social competencies also led to the expectation that the latency of teacher intervention will be shorter for younger children. Since younger children are less effective at verbally communicating their intentions and at understanding others' intentions, they may be less able to resolve their own conflicts. Higher levels of insistence and escalation of conflict can be expected to draw teachers' attention. A higher level of teacher awareness of the conflict can mean more rapid responding.

However, this explanation was not directly supported by present findings. Since younger children were more insistent, and insistence was associated with more escalation of conflict and with increased likelihood of teacher intervention, teachers

would be expected to intervene more rapidly in escalated conflicts. They did not do so. The latency of teacher intervention for escalated conflicts was significantly longer than that for non-escalated conflicts for all 3 age groups. Moreover, the latency of teacher intervention for child-solicited assistance was also longer than for non-solicited assistance. When children ask for help, teachers always give it. However, those conflicts yield a slower response; the time between the onset of conflict and the point of teacher intervention is longer.

This effect is puzzling since solicitation should be related to the presence of physical harm or escalation of conflict, which should lead to shorter latency of teacher intervention. However, analyses revealed no significant relationships between solicitation and the presence of physical harm or escalation. Children may not gear their requests for assistance to the presence of danger; insistence and requests for help might not reflect the objective seriousness of the conflict problem and a rapid response is not needed.

If teachers are aware of the conflict, they might refrain from intervening until they are sure of what the conflict is about. Most of these conflicts are distribution issues. The mean level of insistence for these issues is moderate; probably not enough to cause concern. On the other hand, teachers may not notice these conflicts at all until children approach them. This is likely since most of these conflicts involve only moderate insistence. In this study, each event was coded for the presence or absence of escalation. However, the extent of escalation was not examined. Some escalation involved a child becoming more intense and upset. Others involved both children becoming more upset with each turn during the conflict. Conceivably, distribution-

related issues entail more short, few-turn escalation scenarios that are less noticeable than those lasting several turns. In addition, an event was coded as child-solicited only when the solicitation was explicit. Children who whined without specifically approaching or directing the whine to a teacher were not considered as soliciting teacher assistance. Thus, the longer the conflict goes on without solicitation, the longer the latency of intervention. Since 2 year-olds have a very high percentage of distribution issues and only solicited in 1 event, the latency of intervention for 2 year-olds is shorter than that for older children.

Another possible explanation is that teachers intervened so quickly in the conflicts of 2 year-olds that they do not have the chance to ask for help. Thus, there is no relationship between solicitation for teacher assistance and the presence of physical harm or escalation of conflict especially for 2 year-olds.

The third hypothesis that teachers' intervention strategy is affected by the age of children was not supported, even though teachers used mediation strategies more frequently with 3 year-olds than with 2 and 4 year-olds. Overall, teachers infrequently used mediation strategies regardless of the age, escalation, behavior, and issue of conflict.

Teachers may simply be occupied with ongoing projects or classroom chores that they feel cannot be interrupted by classroom conflicts. Thus, ending conflicts become necessary goals. This possibility may in part be supported by the finding that teacher-initiated interventions (75.2%) significantly outweighed child-initiated interventions (24.8%). Children ask for help when they feel the need for it. However, the latency for non-solicited interventions is shorter than that for child-solicited

interventions, suggesting that teachers move quickly to stop conflicts using cessation strategies to do so. In child-solicited conflicts, teachers might give the children time to work it out themselves. Although teachers may sometimes wait for children to work it out by themselves, once they jump in to intervene, they seek to end the conflict rather than use the opportunity to help children learn strategies for conflict resolution.

Teachers' understanding of what younger and older children can or can't do may affect their patterns of intervention. These teachers may see older children as more able than younger children to work out their own conflicts, thus, they intervened less frequently and waited longer to intervene with older children. By the time the teacher decides that intervention is needed for 4 year-olds, resolution by children is perceived to be beyond hope and thus teachers bring it to an end. Several findings about the nature of 4 year-olds' conflicts appear to support this possibility. Since only 26.7% of the conflicts involving moderately insistent and 0% of the conflicts involving highly insistent behaviors were intervened with mediation strategies, it is conceivable that teachers perceived higher levels of insistence as an indication that the children have reached the limit of their ability to resolve the conflict on their own. Since the majority (52.4%) of the conflicts of 4 year-olds involved insistence, relatively few interventions with 4 year-olds would involve mediation strategies.

Another possible explanation for this finding may be found in the way teachers view children's conflicts. Although there may have been an increasing recognition by researchers and educators that peer conflicts may be an important, even necessary contributor to moral and social development (Bayer, Whaley, & May, 1995; Bredekamp, 1987; Genishi & Di Paolo, 1982; Goncu & Cannella, 1996; Killen &

Turiel, 1991), this recognition may not be widespread. Conflicts in the classroom may still be viewed by some teachers as disruptive and harmful events rather than positive, beneficial opportunities for development. If so, most teachers will focus on stopping conflicts "as quickly as possible so that regular classroom life can continue" (Carlsson-Peige and Levin, 1992).

Teachers' views about the way children learn conflict resolution skills may provide another possible explanation for this finding. Cessation strategies focused on external management of conflict by directing children on how to solve the problem and end it. It reflects empiricist assumptions that "knowledge and moral values are believed to be learned by internalization from sources external to the individual" (Kamii & DeVries, 1996, p. 13). Learning is viewed as the result of receiving more information and mistakes are viewed as signs of insufficient instruction. Emphasis is on direct instruction (Roopnarine & Johnson, 1987), and successful learning occurs as the result of successful teaching (Kamii & DeVries, 1990). In this view, social growth results when children internalize what society considers appropriate behaviors and important rules. Thus, in relation to conflict resolution, teachers may emphasize the importance of learning and using prosocial skills such as being polite, taking turns, waiting for a turn, and sharing (McGinnis & Goldstein, 1990), focusing on these as solutions to peer conflicts. Teachers in this study predominantly used cessation strategies across all 3 age groups regardless of developmental differences. Concern was with the termination of conflict and with telling children how to make it happen. It is thus conceivable that these teachers' approach is dominated by such a social learning view about the way children become socially competent individuals.

Perhaps classroom teachers are simply unaware of what mediation strategies are or of their value for fostering children's development of conflict resolution skills. Some may see conflicts as problems to be prevented, reduced, or managed; and are concerned primarily with how to solve children's peer conflicts when they occur (Kreidler, 1984; Shantz & Hartup, 1992). This possibility is reflected in the predominant use of cessation strategies by teachers in most of the classrooms even when they are aware that the observer is interested in the way they intervene and not intervene in children's conflicts, and that they are being videotaped.

Teachers' Background and Center Accreditation Status

Analyses revealed that teachers' level of education had significant effect on teacher strategy, but experience did not. A number of researchers and educators of early childhood education, including the National Association for the Education of Young Children, have promoted mediation strategies as an effective way for enhancing children's conflict resolution skills (Bredekamp, 1987; Britz & Richard, 1992; DeVries & Zan, 1995; Goncu & Cannella, 1996; Hay, 1984; Killen & Turiel, 1991). Thus, although it is not surprising that the level of education would have an effect on teachers' intervention strategy, and that the years of experience would not, it is surprising that specialized training in early childhood education would have no significant effects on intervention strategy.

In this study, information about teachers' type of education was limited to the type of specialization (whether it is a 4-year ECE degree, AA degree, or CDA certification). No information was obtained about the specifics of the particular

program attended. Perhaps, what is covered in these programs is not specific enough on issues of classroom management and ways to promote children's development of social competence, to help students translate theory into practice. As Kemple, David and Hysmith (1996) suggested, information about the specific nature of these programs and how they have affected teachers' views about classroom conflicts and children's development of conflict resolution skills is needed in order to more accurately assess the effect of the type of education on teachers' intervention strategy.

The finding that the NAEYC accreditation status had a significant effect on teachers' strategy could, in part, support the possibility that teachers may not have been able to effectively translate theory into practice. The finding that teachers in NAEYC accredited centers used more mediation strategies than teachers in non-accredited centers suggests that there are differences in either the program, children, or teachers in these centers. Since all 8 centers have less than 5% of families who qualify for subsidized childcare and they all serve middle to upper-middle class working families, differences children's socio-economic backgrounds are unlikely. Since no significant differences were found between the three background variables of teachers in accredited and no-accredited schools, it is possible that the difference lies in the accreditation experience or in the program of the two types of centers. Since all centers meet minimum state childcare licensing requirements for teacher qualifications and other program components, differences in the program might come from some aspect of the accreditation process.

This process might have enhanced teachers' awareness of the use and value of mediation strategies in children's development of conflict resolution skills. The

process of accreditation involves three steps: self-study by school personnel including the director and teachers, validation visit by trained early childhood professionals, and final decision by a commission of three early childhood professionals. One of the requirements during the self-study process involves teachers and director using the Early Childhood Classroom Observation Scale to rate the quality of staff/child interactions, curriculum, physical environment and health and safety procedures of the classrooms and center. The findings of one study that examined the quality of caregiver-child interactions in terms of NAEYC accreditation and the Infant/Toddler Environment rating Scale (Murphy, 1997) suggesting that the process of self-study may serve to raise teachers' level of awareness of appropriate practice. Personal interpretations of what it means in practice to provide children with "many opportunities to develop social skills such as cooperating, helping, negotiating, and talking with the person involved to solve interpersonal problems," and what it means for teachers to "facilitate the development of these positive social skills at all times" (Bredekamp, 1987, p. 55) can vary widely. Having the opportunity to discuss what these criteria mean could serve to clarify and unify conceptions, helping teachers more effectively translate theory into classroom practice.

Questions for Further Investigation

These data provide information about age-related changes in children's peer conflicts as well as changes in the nature of teacher interventions in the naturalistic classroom setting. They also opened a door to a number of new questions about factors that affect the way teachers intervene in children's peer conflicts. The first set of questions pertains to teachers' views of children's classroom conflicts. What do

teachers think about children's conflicts in the classroom? What do they think about children's abilities to resolve their conflicts? How do they view their role in children's development of social competence? Are their views affected by the age of the children involved? Information about teachers' views of children's peer conflicts in the classroom setting is needed in order to clarify why mediation strategies are so infrequently used, and why neither children's age nor other conflict variables affect its use.

Although the value of peer conflicts in children's development of morality and social competence have been increasingly recognized by early childhood educators and researchers, the extent to which preschool classroom teachers also see them as such has not yet been investigated. Specific examples or videotapes of a variety of children's conflicts, such as those collected in this study, can be used in developing survey or interview questions to tap into teachers' views about children's classroom conflicts. Engaging teachers in discussions about their thinking and decision-making processes in these situations is an important step toward a better understanding of teachers' views of classroom conflict.

The second set of questions is related to teachers' knowledge about mediation strategies. What do classroom teachers know about the use of mediation strategies as a way to foster children's development of morality and social problem solving skills? Although, in the early childhood curriculum literature, there are strong arguments for the use of mediation strategies for teacher interventions in children's conflicts, little is known about the extent to which classroom teachers are actually familiar with this literature. Perhaps, teachers so infrequently use them because they simply do not know

about them or even how they can be practically used in the ever-busy preschool classrooms. Future studies should examine this question.

To what extent does specialized training in early childhood education affect teachers' responses to children's conflicts? The finding that whether teachers' have specific training in early childhood education makes no difference in their use of mediation strategies require more information about the nature of these programs. One might also ask whether knowing about and have training in the use of mediation strategies would increase their use in the classroom. Intervention studies offering training to teachers who lack prior knowledge of mediation strategies would provide answers to this question.

A third set of questions pertains to the role that setting plays in teachers' knowledge and practice of conflict interventions in the classroom. What role does NAEYC accreditation play in the nature of teachers' interventions? Indications of the importance of the role that setting plays in children's conflict has been documented in previous research. In this study, program quality as indicated by NAEYC accreditation status, was found to be significantly associated with teachers' intervention strategy. Although specific training in early childhood education appears to be inadequate for preparing teachers in the use of mediation strategies, aspects of the accreditation process may be more effective. Since only two of the eight centers were NAEYC accredited, generalizations of present findings cannot be made. Future studies that systematically examine the effect of accreditation on teacher interventions using larger samples are needed.

Conclusions and Implications for Practice

Although researchers differed in their views of how and to what extent adults affect children's development, they agree that adults who interact with children in early childhood classrooms on a daily basis have a major impact on their social, moral and cognitive development. In order to support teachers in their efforts to help children in this development, we must first gain a better understanding about the conditions that promote children's development and teachers' efforts. This study generated data that not only furthers this understanding but also points to additional empirical questions about factors that affect teachers' interventions in children's conflict. Present findings suggest a potentially important role of accreditation on the quality of teacher-child interactions, particularly in children's development of conflict resolution skills. They also suggest a need for more education and training of early childhood teachers in the value of peer conflict and the use of mediation strategies to foster children's social and moral development.

APPENDIXES

Appendix A
Recruitment Letters

July __, 1996

Center Recruitment Letter

(name), Director
(school name & Address)

Dear Center Director,

I am a doctoral student in early childhood education in the College of Education, Department of Curriculum and Instruction, at the University of Maryland at College Park. I am currently in the process of recruiting childcare centers in the greater Baltimore-Washington metropolitan area to participate in a study on teachers' interventions in children's peer conflicts. This study is being conducted under the direction of my advisor, Dr. Greta Fein, who is a professor in the Department of Human Development at the University of Maryland at College Park.

Data collection involves videotaping children in classroom freeplay activities. Each child is expected to be videotaped for approximately 5 minutes during freeplay time. Center and teacher questionnaires would also have to be completed for background information. Please be assured that all information obtained will be kept strictly confidential. Identification numbers and pseudonyms will be used in all discussions and reports related to all centers, classrooms, teachers and children involved in the study. Participation is voluntary. Participants are free to withdraw from the study at any time. Videotaped conflict segments of children with parental permission in the naturalistic classroom setting that included children without parental permission for participation will be excluded from the analyses and will not be used in any discussions, reports, or presentations.

A copy of the consent form for the center director, participating teachers and parents of children enrolled in participating classrooms is enclosed for your information. If you are interested in participating in this study, please complete the Center Consent Form and contact me by _____ to schedule a meeting with you and or your teachers at your convenience.

Please do not hesitate to contact my advisor or me should you have any questions or concerns. Your willingness to participate in this study would be greatly appreciated. I may be reached at (410) 997-4290 (home) or (301) 405-5612 (work). I look forward to hearing from you very soon.

Sincerely,

Dora Chen

Teacher Recruitment Letter

September, 1996

Dear Teachers,

I am a doctoral student in early childhood education in the College of Education, Department of Curriculum and Instruction, at the University of Maryland at College Park. I am currently in the process of recruiting childcare centers in the greater Baltimore-Washington metropolitan area to participate in a study on teachers' interventions in children's peer conflicts. This study is being conducted under the direction of my advisor, Dr. Greta Fein, who is a professor in the Department of Human Development at the University of Maryland at College Park.

Data collection involves videotaping children in normal classroom freeplay activities. Each child with parental permission is expected to be videotaped for approximately 5 minutes during freeplay time. Please be assured that all information obtained will be kept strictly confidential. Identification numbers and pseudonyms will be used in all discussions and reports related to all centers, classrooms, teachers and children involved in the study. Participation is voluntary. Participants are free to withdraw from the study at any time. Videotaped conflict segments of children with parental permission in the naturalistic classroom setting that included children without parental permission for participation will be excluded from the analyses and will not be used in any discussions, reports, or presentations.

Your return of the Teacher Consent Form by _____ will be greatly appreciated. Please do not hesitate to contact my advisor or me should you have any questions or concerns. Your willingness to participate in this study would be greatly appreciated. I may be reached at (410) 997-4290 (home) or (301) 405-5612 (work). I look forward to receiving your consent form very soon.

Sincerely,

Dora Chen

Parent Recruitment Letter

September, 1996

Dear Parents,

I am a doctoral student in early childhood education in the College of Education, Department of Curriculum and Instruction, at the University of Maryland at College Park. I am currently in the process of recruiting childcare centers in the greater Baltimore-Washington metropolitan area to participate in a study on teachers' interventions in children's peer conflicts. This study is being conducted under the direction of my advisor, Dr. Greta Fein, who is a professor in the Department of Human Development at the University of Maryland at College Park.

Data collection involves videotaping children in normal classroom freeplay activities. Each child with parental permission is expected to be videotaped for approximately 5 minutes during freeplay time. Please be assured that all information obtained will be kept strictly confidential. Identification numbers and pseudonyms will be used in all discussions and reports related to all centers, classrooms, teachers and children involved in the study. Participation is voluntary. Participants are free to withdraw from the study at any time. Videotaped conflict segments of children without parental permission in the naturalistic classroom setting that included children without parental permission for participation will be excluded from the analyses and will not be used in any discussions, reports, or presentations.

Your return of the Child Consent Form by _____ will be greatly appreciated. Please do not hesitate to contact my advisor or me should you have any questions or concerns. Your willingness to participate in this study would be greatly appreciated. I may be reached at (410) 997-4290 (home) or (301) 405-45612 (work). I look forward to receiving your consent form very soon.

Sincerely,

Dora Chen

Appendix B
Consent Forms

Center Consent Form

Purpose: To examine teacher interventions in 2, 3, and 4 year-olds' peer conflicts during freeplay time in the classroom.

Consent: I, _____, give my permission for the center, to participate in the research project being conducted by Dora Chen, from the Graduate School in the Department of Education, Curriculum and Instruction, at the University of Maryland at College Park. I understand that I will be asked to do the following:

1. Give teachers information about the study along with the consent form for participation. Collect and return the completed consent form(s) to researcher.
2. Complete the enclosed Center Survey Form and return it along with the requested information and completed teacher consent form(s).
3. Distribute and collect permission forms from parents of the children in participating classrooms.
4. Work with researchers to schedule videotaping time blocks as needed.

I understand that all information collected for this study will be kept strictly confidential. Identification numbers and pseudonyms will be used in all discussions and reports related to all centers, classrooms, teachers and children involved in the study. Participation is voluntary. Participants are free to withdraw from the study at any time. Videotaped conflict segments of children with parental permission in the naturalistic classroom setting that included children without parental permission for participation will be excluded from the analyses and will not be used in any discussions, reports, or presentations.

Researcher:

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(301) 405-5612

Faculty Advisor:

Dr. Greta G. Fein
3rd floor, Benjamin Building
Department of Human Development
University of Maryland at College Park
College Park, MD 20742

Name of Director: _____

Address of Center: _____

Street

city

state

zip

Phone: _____ () _____

Signature of Director _____

Date _____

Teacher Consent Form

Purpose: To examine teachers' interventions in 2, 3, and 4 year-olds' peer conflicts during freeplay time in the classroom.

Consent: I, _____, agree to participate in the research project being conducted by Dora Chen, from the Graduate School in the Department of Education, Curriculum and Instruction, at the University of Maryland at College Park. I understand that I will be asked to do the following:

1. Maintain normal routines and patterns of classroom organization and management during videotaping sessions.
2. Help collect permission forms from parents for their child's participation in the study. Help researcher arrange for randomly selected children to be videotaped.
3. Return this completed form to your center director or to Dora Chen.

I understand that all information collected for this study will be kept strictly confidential. Identification numbers and pseudonyms will be used in all discussions and reports related to all centers, classrooms, teachers and children involved in the study. Participation is voluntary. I am free to withdraw from the study at any time. Videotaped conflict segments of children with parental permission in the naturalistic classroom setting that included children without parental permission for participation, will be excluded from the analyses and will not be used in any discussions, reports, or presentations.

Researcher:

Dora W. Chen
1207 Benjamin Building
Office of Laboratory Experiences
University of Maryland at College Park
College Park, MD 20742
(301) 405-5612
(410) 997-4290

Faculty Advisor:

Dr. Greta G. Fein
3rd floor, Benjamin Building
Department of Human Development
University of Maryland at College Park
College Park, MD 20742

Name of Teacher: _____
Address of Teacher: _____

Phone Number: () _____

Signature of Teacher

Date

Child Consent Form

Purpose: To examine teachers' interventions in 2, 3, and 4 year-olds' peer conflicts during freeplay in the classroom.

Consent: I, _____, give permission for my child,

_____, to participate in the research project being conducted by Dora Chen, from the Graduate School in the Department of Education, Curriculum and Instruction, at the University of Maryland at College Park.. I understand that my child will:

Play and interact in the classroom as usual. He/She will be videotaped during freeplay time for approximately 5 minutes during freeplay time.

My responsibilities will include the following:

Give consent for my child to participate in the study by completing this form and returning it to my child's classroom teacher or the center director by the following date: _____

I understand that all information collected for this study will be kept strictly confidential. Identification numbers and pseudonyms will be used in all discussions and reports related to all centers, classrooms, teachers and children involved in the study. Participation is voluntary. I am free to withdraw my child from this study at any time. Videotaped conflict segments of children with parental permission which included children without parental permission for participation, will be excluded from the analyses and will not be used in any discussions, reports, or presentations.

Researcher:

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3rd floor, Benjamin Building
Department of Human Development
University of Maryland at College Park
College Park, MD 20742

Name of Parent: _____ Child's Name: _____

Address of Parent: _____
street

city state zip

Home Phone Number: _____ () _____

Signature of Parent: _____ Date: _____

Center Survey Form

Address: _____

Phone: () city state zip

Contact Person: _____ Position: _____

General Enrollment Information:

1. Tuition per child per week: \$ _____
2. Total # children enrolled: _____
3. Total #with social service vouchers: _____
4. NAEYC Accredited? ____ YES ____ NO ____ In the process
5. If YES: Date of most recent NAEYC accreditation: _____
Date of expiration: _____
- If expiring within the next 6 months, do you plan to renew? ____ YES ____ NO
6. If "In the process": Date of initiation of process: _____
When do you expect to be validated? _____

General Classroom Information:

1. Total # of full-day classes in the school: _____
- What are the different age groups / classes at this center?
- Please list them below:

Please provide information about the children and teachers for each classroom in your center on the following pages.

2. Total # of 2 yr. old classrooms: _____ Teacher-Child ratio: _____

Class #1: Total #children: _____ #full-time(FT) teachers: _____ #part-time(PT): _____

DOB youngest child: _____ DOB oldest child: _____

FT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

FT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

PT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

PT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

Class #2: Total #children: _____ #full-time (FT) teachers: _____ #part-time(PT): _____

DOB youngest child: _____ DOB oldest child: _____

FT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

FT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

PT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

PT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree: _____ Area of study: _____

Please attach a copy of the daily schedule of activities for each classroom, along with a class list with children's names, date of birth, and sex.

3. Total # of 3 yr. old classrooms: _____ Teacher-Child ratio: _____

Class #1: Total #children: _____ #full-time(FT) teachers: _____ #part-time(PT): _____

DOB youngest child: _____ DOB oldest child: _____

FT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

FT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

Class #2: Total #children: _____ #full-time (FT) teachers: _____ #part-time(PT): _____

DOB youngest child: _____ DOB oldest child: _____

FT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

FT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

Please attach a copy of the daily schedule of activities for each classroom, along with a class list with children's names, date of birth, and sex.

4. Total # of 4 yr. old classrooms: _____ Teacher-Child ratio: _____

Class #1: Total #children: _____ #full-time(FT) teachers: _____ #part-time(PT): _____

DOB youngest child: _____ DOB oldest child: _____

FT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

FT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

Class #2: Total #children: _____ #full-time (FT) teachers: _____ #part-time(PT): _____

DOB youngest child: _____ DOB oldest child: _____

FT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

FT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 1: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

PT Teacher 2: _____ Years of experience in this field: _____

Position: _____ Highest degree : _____ Area of study: _____

Please attach a copy of the daily schedule of activities for each classroom, along with a class list with children's names, date of birth, and sex.

THANK YOU FOR TAKING TIME TO COMPLETE THIS FORM.

Please call Dora Chen @ 301-405-5612 or (410) 997-4290 to pick up this information as soon as you have completed it.

Appendix D
Racial Composition and Percent Return of Consent Forms of Children and Teachers by Age Group

Age Group (n)	Children's Racial Compo.(%)			Teachers' Racial Compo.(%)			Children's Average % Consent Rtn.	Teacher's Average % Consent Rtn.
	Cauc.	Afr.-Amer.	Others	Cauc.	Afr.-Amer.	Others		
2's (n = 95) ^a	64%	23%	8%	62.5%	16.7%	20.8%	95.6%	100%
3's (n = 156) ^b	74.4%	21.1%	4.5%	75%	16.7%	8.3%	91.7%	100%
4's (n= 149) ^c	74.5%	17.4%	8.1%	57.9%	26.3%	15.8%	91.8%	100%
Overall	72.8%	20.5%	6.8%	65.7%	19.4%	14.9%	93%	100%

Note: percentages are based on the number of children and teachers who participated in the study.

^a Mean age 2 years 5 months, range between 1 year 6 months and 3 years 3 months, SD = 4.1.

^b Mean age 3 years 5 months, range between 2 year 8 months and 4 years 5 months, SD = 4.4.

^c Mean age 4 years 5 months, range between 3 year 2 months and 5 years 7 months, SD = 4.3.

Appendix E
Center Profile

Center	Type	# on Social Service Vouchers	Tuition (\$) 2's / preK	Accreditation	Mean Level Educ. Yrs.	Teachers: Mean Experience	# with ECE Educ.
1	religious	0 / 251	93.75	no	3.3	4.4	1 / 7
2	religious	3 / 80	98 / 105	no	3.7	7.9	0 / 7
3	for profit	2 / 100	125 / 135	no	2.0	4.6	0 / 7
4	for profit	0 / 72	128 / 135	no	3.1	4.8	2 / 9
5	corporate	0 / 80	171 / 195	yes	3.7	2.4	5 / 9
6	for profit	0 / 92	156	yes	3.8	9.2	3 / 9
7	employee- sponsored	1 / 99	90 / 93	no	2.9	7.1	1 / 8
8	GSA	0 / 128	120 / 125	no	3.4	9.0	2 / 11

Appendix F
Videotaping Manual

General Taping Procedures

1. Remember to turn on the microphone and check for sound quality. Use the earphone.
2. ZOOM in closer, when possible, to target child's face, and include children he/she is beginning to interact with. This will help coders figure out what's going on, what's being said, and by whom.
3. Remember to turn off the microphone before packing up.
4. Use one tape for each classroom. Be sure to label each tape clearly by name of school and age group. Each tape is 2 hours long. Use additional tapes as needed.
5. Drop off each tape as the taping of each class is completed. These tapes will be duplicated.

Identifying Peer Conflicts

1. Peer conflict events are those in which one person protests, resists, or retaliates the actions of another. Initial oppositions signal the onset of conflict. Examples of initial opposition are: NO! MINE! STOP IT! I WANT TO USE IT TOO. BUT IT'S MY TURN NOW.

Remember: a hit, kick, take, grab, etc.... without a corresponding opposition is NOT a conflict. When someone answers another's request, responds to a comment, or adds to another's comment – these are also NOT conflicts.

Example #1: Sara: I have two dogs and they both love me.

Sam: But they also love me too right?

The "BUT" here is not an opposition; it doesn't contradict or oppose what's said by Sara.

Other examples of such responses:

But I have two, too!

But mine doesn't love me.

But I don't have two dogs.

However, there IS a conflict of interest or idea if SAM says:

NO, they don't love you. They love me.

OR,

No, you have only one dog.

2. When in doubt as to whether a peer conflict occurred, always continue taping until the end of 5 minutes. Watch out for those quiet, non-aggressive, almost cordial, and very brief conflicts. These can very easily be overlooked.
3. Continue to tape for at least 10 seconds after the end of a conflict event before ending the taping segment for the target child.
4. Include teachers and what they say. If children solicit teacher intervention, be sure to include those teachers, as soon as solicitation is initiated.

Warm-up Taping Sessions

1. Be in the classroom for 20 to 30 minutes. Talk to the teacher about whether she/he would like to introduce you to the class or if she/he prefers you to just be in the room and greet the children if they come up to you.
2. When children asked who you are, say that you are just a visitor who is here to see what they are doing when they are in school. Then politely but firmly encourage children to "go play" and do not encourage interaction.
3. Walk around with the camera. Let them get used to your presence with the camera.
4. Do warm-up practice taping for 10 to 20 minutes per classroom. Pick 4 to 5 children from each class during this time and practice following taping procedures with them.
5. Get a feel for how and where you can be during freeplay time, to be least conspicuous, yet able to obtain a clear view and sound.
6. View the practice tape that evening and check for any issues or areas for concern. Check for sound clarity. Then, rewind the tape so it is ready for actual taping.

Preparation for Actual Taping

1. Use the given "Randomly Ordered List of Children for Videotaping" sheet for each classroom and write each target child's name on file folder labels.
2. Make note of children without consent – jot their names on the folder and /or on the top of the classroom's 'order for taping' forms.
3. Do not prepare a name tag for these children so you'll remember which child/children you should avoid during taping.

Actual Data Collection Taping

1. Ask teachers for help in putting a name tag on each target child.
2. Double check with the teachers as needed on which children is NOT in the study.
3. Use the "Randomly Ordered List of Children for Videotaping" form to identify target children and begin taping.
4. Use the attached instructions for recording taping notes. Record these on
Randomly
Ordered List of Children for Videotaping" sheet.

At the End of Each Taping Day

1. Sort through your tapes. Be sure you have audible sound.
2. Sort through your "Randomly Ordered List of Children for Videotaping" sheet.
Make a revised sheet for target children who still need to be taped. Begin the new list with the child after the last child taped. Follow the order.
3. Recharge batteries as needed.
4. Note any questions and additional supplies needed. Contact the researcher as needed.

Decision Rules for Videotaping and Instructions for Recording Taping Notes

4. Situations when a 5-minute taping session must be interrupted:

*target child ends up playing with a no-consent child or a visitor in the room after a taping session has begun.

*target child left the room after taping has begun.

5. A target child's taping is completed if he/she has:

*ONE conflict event.

*2 dropped and 1 no-conflict taping sessions.

*3 dropped taping sessions.

*2 no-conflict taping sessions.

6. A target child who is absent for more than 1 week after the taping in all the classes in the school has been completed will be dropped from the study.

7. Target children who are playing by themselves (more than 2 radius feet away from other children) when their turn comes up for taping for three consecutive times will be considered no-conflict children.

Appendix G
Randomly Ordered List of Children for Video Taping

Center: _____ Class: _____ Observer: _____

Center: _____ Class: _____ as of 9/1/96
Age range: _____ Average Age: _____ Teacher 3: _____

Teacher 1: _____ Teacher 2: _____ Teacher 3: _____

Teacher 1: _____ Teacher 2: _____

Note: Children are listed below in random order. Those absent during turn of observation will be observed again on subsequent visits, according to order on the list, until all with parental permission are observed.

	Round A	Round B	Round
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[illegible]

Appendix H

Conflict Coding Manual

The coding schemes for children's conflict resolution behaviors and teacher intervention strategies for this study have been adapted from the coding categories used in previous research. This manual details the instructions for coding and the definition and sources of terms and coding categories, along with related decision rules for coding.

Instructions for Coding

1. Review the definition of terms and categories outlined in this document.
2. Watch the videotape of conflicts from the training tapes. Practice coding the conflicts based on these definitions. Note any questions about the definitions and how to apply them in the coding process and bring them to meetings for clarification.
3. For each conflict event, you will be determining:
 - a. the onset and the end of the event;
 - b. the length of the conflict event;
 - c. the issue of conflict based on the initial opposition;
 - d. the conflict behavior of children based on the behavior of children just prior to teacher intervention or at the end of a conflict event;
 - e. whether the event escalated;
 - f. whether teacher intervention was involved;
 - g. identify the teacher involved when teacher intervention occurred;
 - h. the type of intervention strategy used by the teacher when intervention occurred.

4. Use the attached forms to note the nature of the turns taken by each member of the conflict and enter the codes for each of the 8 aspects noted in #3 above. Save these for discussions. The same forms will be used in the coding of the actual data tapes.

Definition and sources of terms and coding categories

1. Conflict status refers to whether an observation of a target child involves a peer conflict. Conflict observations are those involving a peer conflict event. Non-conflict observations are those without any peer conflicts during the period of observation. Peer conflict events are those in which one person protests, resists, or retaliates the actions of another (Hay, 1984; Shantz, 1987). Initial oppositions signal the onset of conflict. Examples of initial opposition are: NO! MINE! STOP IT! I WANT TO USE IT TOO. BUT IT'S MY TURN NOW. Clear settlements or a shift away from the disputed event to a new activity signals the end of conflict (Eisenberg & Garvey, 1981; Genishi & Di Paolo, 1982).

Decision rules for determining the onset and end of a conflict event:

*Actions or inactions such as a hit, bite, take, grab, and ignore of another's request are events that trigger the conflict. By themselves, without oppositions, they do not signal the onset of a conflict. An opposition to one or more of these events signals the onset of a conflict. Examples of initial oppositions are NO! MINE! STOP IT! I WANT TO USE IT TOO. BUT IT'S MY TURN NOW. The end of the event will be signaled by a clear indication of the resolution or non-resolution of the issue of dispute, or when the topic is dropped and neither party continues to pursue that issue (Eisenberg & Garvey, 1981; Killen & Naigles, 1995; Killen & Turiel, 1991).

*A 10-second interval in which neither party continues to pursue the issue of dispute, signals the end of the conflict event (Russon, Waite & Rochester, 1990).

* Shifts in the issues of conflict within some conflicts does not necessarily signal the beginning of a new conflict event. A new conflict event that is signaled by change in the issue of conflict can only follow an unresolved event when a 10-second or longer lapse in time between exchanges or when the topic is dropped.

2. The length of conflict refers to the total number of seconds taken by all children involved in a peer conflict event from the point of initial opposition to the point of teacher intervention or the end of a conflict event when teachers did not intervene.

*Begin counting with the initial opposition. Thus, freeze frame at the first verbal opposition (No...), or first indication of non-verbal resistance (example, for hits or kicks, at the lift of hand / foot; for grabs, at first clear reach).

*Stop counting at the first indication of the end of a conflict when teachers did not intervene or at the first indication of teacher intervention. Thus, freeze frame at the point of departure or turn of face / body away from conflict partner / situation for the last turn taken by a conflicting partner for topic dropped non-resolved events, or at the point of yielding to a protest for yielded / compromised / negotiated events. For teacher intervened events, freeze frame at the point of teacher intervention.

3. Issues of conflict refer to the nature of the topic of dispute.

a. Physical harm: Hitting, biting, and punching, for example.

b. Psychological harm: Name-calling and teasing.

c. Distribution of resources: Not sharing, turn taking, and ignoring others' use of space or materials such as grabbing and taking.

d. Play / Ideas:

Who will do what, when, where, how.....

e. Social order:

Violation of class / school rules; running indoors,

eating with hands instead of spoon, when and

how to cleaning up...

4. Children's conflict behaviors are categorized into 4 levels: non-insistence, low insistence, moderate insistence and high insistence. These behaviors are noted for the last two turns just prior to the point of teacher intervention, or at the end of a conflict event when no teacher interventions were involved.

a. Non insistence are those behaviors involving the use of reasoning and other conciliatory behaviors such as yielding, compromising and negotiating (Eisenberg & Garvey, 1981; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984).

b. Low insistence are those behaviors involving the use of non-physical, indirect, passive resistance such as ignoring others (Eisenberg & Garvey, 1981) and not giving in or compromising.

c. Moderate insistence are those behaviors involving NO infliction of physical or psychological harm, but involves standing firm, direct verbal or non-verbal insistence of own wants (Eisenberg & Garvey, 1981), solicitation of third-party teacher or peer intervention (Russon, Waite, & Rochester, 1990), and use of verbal simple assertions and commands (Eisenberg & Garvey, 1981; Genishi & DiPaolo, 1982), without physical assertions of own needs and wants.

d. High insistence behaviors are those involving the use of physical force or resistance (Dawe, 1934; Eisenberg & Garvey, 198; Siegal & Kohn, 1959) and

infliction of physical harm and / or psychological harm (Eisenberg & Garvey, 1981; Killen & Turiel, 1991), with or without verbal.

5. Escalation refers to whether a conflict event escalated. Note the types of conflict behaviors involved at the very beginning of the conflict, and see if the emotions intensified or if the level of insistence increased instead of remained the same or decreased.

6. Child solicitation refers to whether children solicited teacher intervention in a conflict event. For each event, a decision is made as to whether children solicited teacher intervention. Solicitations are counted only if children clearly and actively sought teacher attention or help.

Decision rules for coding for child solicitation:

*Passive whining without movement toward an adult or whining and looking over at the teacher across the room are not counted as child solicitation.

*Getting up and moving toward an adult in the room or calling for a specific teacher are counted as child solicitation.

7. Teacher intervention refers to whether teachers became involved in a conflict event.

8. Latency of intervention refers to the time (in seconds) between the onset of conflict and the point of intervention.

9. Teacher intervention strategies have been categorized into 2 main types: cessation and mediation. Strategies are coded only for the first teacher who intervened in a given event in the case that a second teacher becomes involved at a later point for the same event.

a. Mediation strategies (MED) are those that encouraged and/or helped the parties involved resolve their own conflicts. The role of the adult here is one of facilitator. Solutions to conflicts are child-generated with or without adult assistance (Bayer, Whaley & May, 1995; DeVries, Reese-Learned & Morgan, 1991; DeVries & Zan, 1994; Russon, Waite & Rochester, 1990).

Decision rules for mediation:

*Teachers tried to find out what the children's concerns were.

*Teachers did not end the conflict by telling children what they should or should not do, OR use distractions to get children's attention away from the problem they are having. Teachers encourage children to come up with solutions and offer suggestions for ways to resolve the conflict as needed.

*Teachers are more concerned with helping children arrive at solutions to their own problems, or that solutions are acceptable to all children involved – even if the topic eventually gets dropped and no final solutions were arrived at. That is, even if the agreement among the children was to drop the issues – “agree to disagree.”

*When teachers simply say, “Use your words,” or “Ask him if you can use it,” and other ways of encouraging children to try to resolve their own problems without physically becoming involved in the discussion with all the parties involved, code it as mediation. Teachers are intervening sparingly here; the resolution is still being left to the children.

b. Cessation strategies (CESS) are those aimed at external management of children's conflicts by prescribing appropriate behavior, distracting them from the crux of their problem, or removing the source of conflict for the children involved (Bayer,

Whaley & May, 1995; Russon, Waite & Rochester, 1990). The adult assumes a position of authority whose role is to judge given situations. Thus, solutions to conflicts are adult-generated and the resolutions of conflicts are also adult determined (Killen & Turiel, 1991).

Decision rules for cessation strategy:

- *Teachers did not try to find out what the children's concerns were.

Assumptions were made (rightly or wrongly) about what had happened.

- *Teachers end the conflict by telling children what they should and should not do OR use distractions to get children's attention away from the problem they are having. Teachers simply call out child's / children's name – as a way to stop what they are doing.

- *Teachers are more focused on keeping peace and minimizing conflicts between children.

Appendix I

Summary of the KAPPA Scores and Percent Agreement for Inter-coder Reliability

	KAPPAs ^a (range) ^b	% agreement ^a (range) ^b
<u>Conflict Measures</u>		
# seconds		94% (92 – 100%)
Issues	0.96 (0.87 – 1.0)	
Insistence	0.89 (0.76 – 1.0)	
Escalation	0.93 (0.86 – 1.0)	
Solicitation	1.0	
Intervention	1.0	
Strategy	0.88 (0.73 – 1.0)	

^a average KAPPA scores for each measure.

^b range of individual KAPPA scores.

Appendix J

Definition of Terms

1. Conflict status refers to whether an observation of a target child involves a peer conflict. Conflict observations are those involving a peer conflict event. Non-conflict observations are those without any peer conflicts during the period of observation. Peer conflict events are those in which one person protests, resists, or retaliates the actions of another (Hay, 1984; Shantz, 1987). Initial oppositions signal the onset of conflict. Examples of initial opposition are: NO! MINE! STOP IT! I WANT TO USE IT TOO. BUT IT'S MY TURN NOW. Clear settlements or a shift away from the disputed event to a new activity signals the end of conflict (Eisenberg & Garvey, 1981; Genishi & Di Paolo, 1982).
2. The length of conflict refers to the total number of seconds taken by all children involved in a peer conflict event from the point of initial opposition to the point of teacher intervention or the end of a conflict event when teachers did not intervene.
3. Issues of conflict refers to the originating topic of dispute – at the initial opposition.
 - a. Physical harm: Hitting, biting, and punching, for example.
 - b. Psychological harm: Name-calling and teasing.
 - c. Distribution of resources: Not sharing, turn taking, and ignoring others' use of space or materials such as grabbing and taking.
 - d. Play / Ideas: Who will do what, when, where, how....
 - e. Social order: Violation of class / school rules; running indoors, eating with hands instead of spoon, when and how to cleaning up...

4. Children's conflict behaviors are categorized into 4 levels: non-insistence, low insistence, moderate insistence and high insistence. These behaviors are noted for the last two turns just prior to the point of teacher intervention, or at the end of a conflict event when no teacher interventions were involved.

a. Non insistence are those behaviors involving the use of reasoning and other conciliatory behaviors such as yielding, compromising and negotiating (Eisenberg & Garvey, 1981; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984).

b. Low insistence are those behaviors involving the use of non-physical, indirect, passive resistance such as ignoring others (Eisenberg & Garvey, 1981) and not giving in or compromising.

c. Moderate insistence are those behaviors involving NO infliction of physical or psychological harm, but involves standing firm, direct verbal or non-verbal insistence of own wants (Eisenberg & Garvey, 1981), solicitation of third-party teacher or peer intervention (Russon, Waite, & Rochester, 1990), and use of verbal simple assertions and commands (Eisenberg & Garvey, 1981; Genishi & DiPaolo, 1982), without physical assertions of own needs and wants.

d. High insistence behaviors are those involving the use of physical force or resistance (Dawe, 1934; Eisenberg & Garvey, 1981; Siegal & Kohn, 1959) and infliction of physical harm and / or psychological harm (Eisenberg & Garvey, 1981; Killen & Turiel, 1991), with or without verbal.

5. Escalation refers to whether a conflict event escalated. Note the types of conflict behaviors involved at the very beginning of the conflict, and see if the emotions

intensified or if the level of insistence increased instead of remained the same or decreased.

7. Child solicitation refers to whether children solicited teacher intervention in a conflict event. For each event, a decision is made as to whether children solicited teacher intervention. Solicitations are counted only if children clearly and actively sought teacher attention or help.

8. Teacher intervention refers to whether teachers became involved in a conflict event.

9. Latency of intervention refers to the time (in seconds) between the onset of conflict and the point of intervention.

10. Teacher intervention strategies have been categorized into 2 main types: cessation and mediation. Strategies are coded only for the first teacher who intervened in a given event in the case that a second teacher becomes involved at a later point for the same event.

a. Mediation strategies (MED) are those that encouraged and/or helped the parties involved resolve their own conflicts. The role of the adult here is one of facilitator. Solutions to conflicts are child-generated with or without adult assistance (Bayer, Whaley & May, 1995; DeVries, Reese-Learned & Morgan, 1991; DeVries & Zan, 1994; Russon, Waite & Rochester, 1990).

b. Cessation strategies (CESS) are those aimed at external management of children's conflicts by prescribing appropriate behavior, distracting them from the crux of their problem, or removing the source of conflict for the children involved (Bayer, Whaley & May, 1995; Russon, Waite & Rochester, 1990). The adult assumes a

position of authority whose role is to judge given situations. Thus, solutions to conflicts are adult-generated and the resolutions of conflicts are also adult determined (Killen & Turiel, 1991).

Appendix K

Breakdown of Conflict Events

	2's	3's	4's
# observed (N = 400)	95	155	150
# no conflict as target child	23 / 95 24.2%	29 / 155 18.7%	26 / 150 17.3%
# no conflict as target child but involved in at least 1 event	14 / 23 60.9%	12 / 29 41.4%	12 / 26 46.2%
# of all observed that were involved in at least one conflict event	86 90.5%	138 89%	136 90.7%
	(75% - 100%)	(76.9% - 94.7%)	(86.7% - 95.8%)
# in NO events	9 9.5%	17 11%	14 9.3%
# in 1 event	44 46.3%	68 43.9%	60 40%
# in 2 events	26 27.4%	42 27.1%	47 31.3%
# in 3 events	13 13.7%	19 12.3%	24 16%
# in 4 events or more	3 3.2%	9 5.8%	5 3.3%

Appendix L

I. Correlations Between Subscales for Teacher Background Variables and the Frequency of Teacher Intervention for All Teachers in the Study

	1	2	3	4
1. Level of Education	1.00	-.33**	.21	-.13
2. ECE Education	-	1.00	.07	.18
3. Experience	-	-	1.00	-.009
4. Intervention	-	-	-	1.00

Note: n = 67.

**correlation is significant at the 0.01 level (2-tailed).

II. Correlations Between Subscales for Teacher Background Variables and the Frequency, Latency and Strategies of Teacher Intervention for Teacher-Intervened Conflicts.

	1	2	3	4	5	6
1. Level of Education	1.00	-.44**	.08	.	.04	.25*
2. ECE Education	-	1.00	.23*	.	.05	-.07
3. Experience	-	-	1.00	.	.15	.11
4. Intervention	-	-	-	1.00	-.04	.
5. Latency	-	-	-	-	1.00	.02
6. Strategy	-	-	-	-	-	1.00

Note: n = 101.

*correlation is significant at the 0.05 level (2-tailed).

**correlation is significant at the 0.01 level (2-tailed).

Appendix M

Review of the Literature

Teacher Interventions in the Peer Conflicts of Young Children

Introduction

Until recently, the potentially positive role of peer conflicts in children's moral and social development has been largely overlooked. Peer conflicts are increasingly viewed by some educators and researchers as opportunities for children to advance their thinking and social skills by recognizing the perspectives of others and for learning ways to develop mutually agreeable solutions to problems (Corsaro & Rizzo, 1990; DeVries & Zan, 1994; Bayer, Whaley & May, 1995; Genishi & Di Paolo, 1982; Killen & Sueyoshi, 1995; Killen & Turiel, 1991; Shantz, 1987; Shantz & Hartup, 1992). This view reflects the stance posited in Piaget's theory of equilibration. According to this theory, "disequilibrium" or conflict plays a central role in developmental change processes (Chapman & McBride, 1992). The two forms of conflict in Piagetian theory are intrapersonal and interpersonal. While intrapersonal conflict is cognitive conflict within an individual, interpersonal conflict is social in nature and is conflict between different persons. Peer conflicts are a part of these interpersonal conflicts.

Piaget argues that interpersonal conflict, especially between persons of equal power (peers), is a central way of reducing egocentrism. It provides opportunities for children to confront and, thus begin to consider others' point of view (DeVries & Zan, 1994). As children attempt to convey their own view points, they begin to find and try out different ways to justify these viewpoints. Cognitive conflict within a child is induced within the context of peer conflict. It is these cognitive conflicts generated through peer conflicts which lead to children's increasing ability to "co-operate" with others (Piaget, 1932). Learning to cooperate with others concerns how others ought or

ought not to be treated. Since this is one aspect of moral development (Helwig, 1995), peer interactions not only play a central role in children's cognitive development, it is also an important contributor to their moral and social development.

The increasing recognition of the positive role that social conflict plays in young children's development of social competence and interpersonal understanding has led to a number of studies of children's conflict and its resolution. While research has provided some important information about the nature of children's conflicts, relatively little has been done to investigate the role that teachers play in children's social and moral development.

Purpose

This review will examine existing empirical studies on teachers' contributions to preschool children's developing social competence and conceptions of morality, particularly through their use of peer conflict intervention strategies. The first section defines peer conflict as it is used in studies of young children's conflicts. In the next section, research on the nature of children's conflicts including information about the incidence, issues, behaviors, escalation, and outcomes of conflict. Focus will be on how these aspects of peer conflict change with increasing age from infancy and toddlerhood through the preschool years.

The next section covers research on the role that teachers play in children's conflicts. Six questions about teachers' intervention strategies will be addressed in this section. What are the main conflict intervention strategies that teachers of young children use? How often do teachers intervene? When do teachers intervene? Do teachers vary the use of their intervention strategies? How do teacher intervention

strategies affect the outcome of conflicts? Is there a "best" way for intervening in children's conflicts? Finally, this review will conclude with a brief discussion about some of the limitations in the generalizability and interpretation of findings of previous research.

Defining Peer Conflict

Hay (1984) operationally defined social conflicts as events that occur "when one person does something to which a second person objects; the initial act may or may not have been intended to harm its recipient. Conflict persists until the persons cease to be at variance." Thus, disputes begin with oppositions and end with either clear settlements or a shift away from the disputed event to a new topic or activity (Eisenberg & Garvey, 1982; Genishi & DiPaolo, 1982; Killen & Turiel, 1991). From this perspective then, social conflict involves more than one person, and is "a form of social exchange between people" (Hay, 1984). Social conflict has been similarly defined by conflict theorists such as Filley (1975) and Deutch (1973), as a process that occurs between two or more parties when incompatible activities or actions occur. Yet, the term "conflict" has been used interchangeably with "aversive," "coercive," "conflictual," "disruptive," "assertive," and "aggressive behaviors" in some previous research literature (Shantz, 1987a), reflecting a research focus on the specific behaviors that can cause and occur during conflicts such as hitting, biting, name calling, grabbing, and other violations of moral and social rules. In this review, a distinction will be made between conflict behaviors and the state of conflict itself. In addition, social conflicts include both adult-child as well as child-child or peer conflicts. This review will focus mainly on children's peer conflicts.

Young Children's Peer Conflicts

The increasing recognition by educators that peer conflict may be an important, perhaps necessary, contributor to early social and cognitive development has led to a number of studies of children's peer conflicts over the past decade or so. This research reveals important and fairly consistent information about the sources, duration and frequency, conflict behaviors, and the outcomes of young children's peer conflicts. Although these studies varied widely in sample size, setting, and age of children studied, they reveal several common features about the nature of children's conflicts. Table 9 provides a summary of some of the findings for classroom studies of young children 5 years and under.

Duration and incidence of conflict

Research indicates that children's conflicts are relatively brief in duration (Dawe, 1934; Eisenberg & Garvey, 1981; Hay & Ross, 1982). Dawe (1934) found that 2 to 5 year-olds' conflicts averaged 23.63 seconds from the onset to the end of the conflict or to the point of teacher intervention. The average for indoor freeplay conflicts was 18.45 seconds, and that for outdoor playtime was 34.48 seconds. Of the 200 conflicts analyzed, only 13 were 1 minute or over in duration.

Conflicts are also fairly infrequent (Hay, 1984; Hay & Ross, 1982; Shantz, 1987a). Table 9 presents the frequencies of conflict for selected studies with children 5 years and under. Observed frequency of children's conflicts in the naturalistic classroom setting varied from 1 every 2.63 minutes for infants and toddlers (Bayer, Whaley & May, 1995) to 1 every 3.3 minutes (Genishi & Di Paolo, 1982) and 8.26 to 9.34 minutes for 3 and 4 year-old preschoolers (Killen & Turiel, 1991). Laboratory

setting observations of preschoolers' conflicts revealed more frequent conflicts at 1 every 2.7 to 3.6 minutes (Killen & Turiel, 1991). Bakeman and Brownlee's (1982) investigation of age differences in possession conflicts revealed that toddlers averaged 1 conflict in every 5.1 minutes while preschoolers averaged 1 in every 11 minutes. The incidence of conflicts is found to be related to the length of the play period and the type of play area. Dramatic play and block areas are found to have the highest reported conflicts by children (Boisen, 1992). Thus, the frequency of conflicts appears to be higher for 1 and 2 year-olds than for 3 and 4 year-olds. It also appears to vary according to the observational setting.

Issues of children's conflict

Common sources of conflict among toddlers and preschool children include disputes over objects (possession), nature or the structuring of play, right to and use of space and materials, physical and psychological harm, and social order (Corsaro & Rizzo, 1990; Genishi & DiPaolo, 1982; Hay, 1984; Killen & Turiel, 1991). Although object-oriented conflicts concerning the distribution of resources are the most common for all preschool children in the United States (Corsaro & Rizzo, 1990; Hay, 1984; Killen & Turiel, 1991), its incidence is higher for 2 year-olds than for 4 to 5 year-olds (Dawe, 1934). Dawe's (1934) analysis of 200 quarrels of preschool children revealed that disputes over objects decreased from 73.5 % among 2 to 2 1/2 year-olds, to 38.4% among 4 1/2 to 5 year-olds.

During the preschool years, the incidence of other, more socially-oriented issues of conflicts such as those involving the nature of and access to play, claims about opinions and beliefs (Corsaro & Rizzo, 1990), those involving rights to space

and materials (ignoring others' use of space), psychological harm (teasing), physical harm (pushing, hitting, biting, kicking), and social order such as classroom rule violations (Killen & Turiel, 1991) increase with age (Hay, 1984). Types of conflict resolution (topic dropped, child-generated or adult-generated) have been found to differ according to the issues of conflict (Killen & Turiel, 1991). Adults generate more solutions to conflicts stemming from physical harm than psychological harm and the distribution of resources and rights to space and materials in the naturalistic classroom freeplay setting (Killen & Turiel, 1991).

Some researchers indicate that the issues of contention within object-oriented and socially-oriented conflicts may not be very different after all (Hay, 1984; Shantz, 1987b). There is some empirical evidence that the availability of objects to share does not make a difference in the frequency of object conflicts among young children (Hay, 1984). This suggests that the real issue underlying many object disputes may not solely involve object control, but behavior or social control (Shantz, 1987b). As children become older during the preschool years, they become increasingly socially and cognitively competent (Astington, 1993; Selman, 1980). Although the incidence of conflict may not be a simple function of age (Hay, 1984) or any other single contextual variable (Killen & Turiel, 1991), age is a significant predictor of children's conflict behavior.

Children's Conflict Behaviors

While aggression is behavior aimed at harming another person, conflict is a state that exists when one person opposes another (Perry, Perry, & Kennedy, 1992). Aggressive behavior is only one of many types of behaviors that may occur in conflict

situations (Shantz, 1987a). Research has shown that while taking, tugging, pulling objects are frequent means of beginning an object struggle, physical aggression is rare in conflicts among toddlers and even older children (Caplan, Vespo, Pederson, & Hay, 1991; Eisenberg and Garvey, 1981; Hay and Ross, 1982; Ross and Conant, 1992). In fact, aggression often occurs without conflict (Shantz, 1987a), and relatively few physical attacks or threats are resisted by young peers (Strayer and Strayer, 1976).

Children initiate conflicts in several ways: simple "No," related reason / justification, countering / alternate proposal, temporizing / postponement of agreement, and evading or hedging (Eisenberg & Garvey, 1981). Eisenberg and Garvey (1981) identified 9 possible responses that can follow the 5 initial opposition moves: insistence, mitigation or aggravation, reasons, countering or offering alternate proposals, conditional directives, compromise, requests for explanation, physical force, and ignoring. Other researchers identified two main types of gestures used in conflicts: subordinate gestures, including crying, withdrawing, yielding; and conciliatory gestures, which includes cooperative propositions, apologies, symbolic offers, sharing of objects (Sackin and Thelen, 1984). When conciliatory gestures are used, children are more likely to continue to interact.

Conciliatory gestures are found more frequently among preschoolers than among toddlers (Laursen and Hartup, 1989; Sackin and Thelen, 1984). Conciliatory gestures are also more likely to lead to peaceful outcomes than yielding. However, yielding was used more often (Vespo and Caplan, 1993). When children use justification in their initial opposition, their partners tend to not pursue the conflict as often (Eisenberg and Garvey, 1981; Phinney, 1986). In conflict, insistence tends to

lead to counter insistence by the partner (Eisenberg & Garvey, 1981).

Putallaz & Sheppard's (1992) review of the literature revealed four aspects of competent conflict behavior which dovetail with several of the conflict behaviors identified above. First, competent behavior depends on the situation. Since different situations call for different behaviors, adaptive behavior (versus consistent behavior across situations) would be expected of competent children. The use of context-appropriate strategies is thus the key to competent conflict behavior. Second, a social orientation, versus an egocentric one, results in greater individual benefit. A child who is interested in social interaction for its own sake, not just in object possession, control, or responding to the provocation, appears to be a socially competent child. Third, socially competent conflict resolution behavior appears to entail an effort and ability to balance one's own interests with those of others, a key ability for "integrative bargaining." Fourth, competent conflict behavior entails social perceptiveness - the ability to discover relevant social norms and other's interests, as well as to accurately appraise conflict situations and to decide on the most appropriate approach to take. These social competencies have been referred to as "the ability to achieve personal goals in social interaction while simultaneously maintaining positive relationships with others over time and across situations" (Rubin & Rose-Krasnor, 1992, p. 285). Such a view about what constitutes competent conflict behavior is also reflected in Selman's (1980) developmental model of interpersonal negotiation strategies.

To Selman (1980), conflict resolution is a process that plays a critical part in the maintenance of friendships. This developmental model of interpersonal negotiation strategies was developed from Selman's extensive interviews of children about

negotiation strategies. It reflects the notion of competent conflict behavior presented by Putallaz and Sheppard above (1992). Table 10 summarizes these levels.

Selman's Levels 0 and 1 strategies can be equated with the use of aggravation, physical force, simple assertions, commands and insistence/standing firm. Levels 2 and 3 strategies may be equated with the use of reasons, countering or offering alternate proposals, and compromise identified by previous research. Although Selman's (1980) developmental levels of negotiation strategies were derived from extensive interviews of children, the progression appears to be moving from a more egocentric, self-centered stance to that which reflects more understanding of other's perspectives and increased ability to coordinate own needs and wants with that of other's.

A similar developmental progression in children's interpersonal understanding is also reflected in studies which indicate that between the ages of 3 and 5, children's ability to understand the causal link between the intention of an act and its outcome is likely to increase (Astington, 1993). Along with this qualitative change in children's understanding of intentions and acts, other studies have shown that with increasing age during the preschool years, children's conflict resolution strategies also seem to change from the use of more physical resistance and force, to more verbal ones (Camras, 1984), and from the use of simple assertions and insistence, to more use of reasoning and other collaborative strategies (Phinney, 1986).

From this literature, children's conflict behaviors can be categorized 4 levels: non-insistent, low insistence, moderate insistence, and high insistence. Insistent behaviors are those that reflect a lower level of interpersonal understanding and ability

to coordinate the perspective, needs and wants of the self with that of others (Eisenberg & Garvey, 1981; Hay & Ross, 1982; Selman, 1980). They include behaviors ranging from the use of passive ignoring, to the use of simple assertions and commands, solicitation of peer or adult interventions, use of physical force, and the infliction of physical harm. In contrast, non-insistent, collaborative behaviors reflect a higher level of interpersonal understanding and ability to coordinate the perspective, needs and wants of the self with that of others (Eisenberg & Garvey, 1981; Selman, 1980). These behaviors include the use of justifications and reasoning, and conciliatory gestures such as apologizing, compromising, and negotiating. Most studies of children's conflict indicate that between 1 1/2 and 5 years of age, there is a decrease in the incidence of more insistent conflict behaviors and an increase in collaborative behaviors (Camras, 1984; Caplan, 1991; Dunn & Munn, 1987; Hay & Ross, 1982; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984).

Escalation of children's conflict and solicitation of teacher intervention

Certain behaviors during conflict tend to escalate the conflict (Eisenberg & Garvey, 1981; Perry, Perry & Kennedy, 1992; Hay & Ross, 1982). Insistent conflict behaviors are more escalatory in nature and less likely to lead to a "meeting of minds" (Shantz, 1987b). They include behaviors ranging from the use of passive ignoring, to the use of simple assertions and commands, solicitation of peer or adult interventions, use of physical force, and the infliction of physical harm. It may be that a lack of information in these behaviors makes the reaching of compromise and conciliation difficult (Genishi and DiPaolo, 1982). Thus, more insistent behaviors are less likely to lead to resolution than more collaborative behaviors which involve non-coercive

reasoning, compromising, and negotiative strategies that offer the partner more detail about the perspective of the speaker and what resolutions the speaker may find reasonable (Eisenberg & Garvey, 1981; Genishi & Di Paolo, 1982; Killen and Naigles, 1995; Ross and Conant, 1992; Shantz, 1987b).

Some researchers suggest that insistent behaviors tend to elicit more insistent behaviors from the partner (Eisenberg & Garvey, 1981). Thus, it is conceivable that conflicts involving physically insistent behaviors will lead to more of the same behavior from both parties involved, escalating the conflict. Teachers may respond to more insistent behaviors with cessation strategies aimed at stopping the conflict. In contrast, conflicts involving less insistent and non-insistent behaviors may elicit the use of mediation strategies and non-intervention from teachers.

On the other hand, higher levels of insistence may also lead to tattling, telling or direct solicitation of teacher intervention. When things are not going their way, some children will resort to reporting the conflict to the teacher, increasing the likelihood of teacher intervention. Russon, Waite & Rochester's (1990) study of infants and toddlers' peer conflicts indicates that events that elicited teacher intervention were negative ones. They including conflicts over objects and caregiver attention, aggression, and protests / crying. The same study also found that infants and toddlers solicited 42.5% of all teacher interventions, and that infant solicitation was 80% effective in achieving teacher intervention. However, whether this is age-related is not known from previous research.

Outcomes of Conflict Resolution

Conflicts involving physical harm, distribution of resources, and rights issues are more likely to be resolved than those involving psychological harm and disruption of social order (Killen & Turiel, 1991). Most conflicts end as a result of compliance or yielding on the part of one party, while others end because the topic was dropped by both parties (Killen & Turiel, 1991). Yielding to peers is affected by the peer's use of force and threats, and by the past experience with that peer (Ross and Conant, 1992).

Although studies have not directly examined the association between the age of children and the outcomes (resolved or unresolved) of their conflicts, expectations concerning this association may be generated by linking the use of different resolution strategies to the outcomes. If certain resolution behaviors are less conflict-escalatory in nature and are thus more likely to lead to resolution (Eisenberg & Garvey, 1982; Perry, Perry & Kennedy, 1992), then it can be expected that children who use more of these strategies would also experience more resolved conflicts. Following the same line of reasoning, if older children are more likely to use less conflict-escalatory strategies, then it can be expected that more of their conflicts would be resolved.

Most studies of young children's conflicts looked at the outcomes of conflicts in terms of whether they were resolved, and who (teachers or children themselves) resolved them (Genishi & Di Paolo, 1982; Killen & Turiel, 1991; Russon, Waite & Rochester, 1990). Interestingly, these studies typically focused only upon whether teachers were present or absent during a conflict. The presence of teachers is equated with teacher intervention and consequently, also equated with adult-generated solutions to the conflicts (Genishi & DiPaolo, 1982; Killen & Turiel, 1991). Types of

conflict resolution (topic dropped, child-generated or adult-generated) have been found to significantly differ according to the source of conflict. Adults generate more solutions to conflicts stemming from physical harm than psychological harm and the distribution of resources and rights to space and materials in the naturalistic classroom freeplay setting (Killen & Turiel, 1991).

Age-related changes in both the issues of children's conflict and their conflict behaviors are documented in previous research. If the issues of conflict and conflict behaviors change with the age of children, then teachers' intervention strategies might also change. However, little is known about teachers' conflict intervention strategies and how they are related to the ages of the children.

Given the developmental differences in the nature of children's conflict and conflict resolution strategies, one question emerges: what role do teachers and caregivers play in children's developing conceptions of morality and conflict resolution skills? Teacher and caregiver behavior constitute an important element of the day care setting especially given the substantial amount of time that young children are currently spending in child care centers (Holloway & Reichardt-Erickson, 1988). Increasing our knowledge of how teachers intervene in children's conflicts by pinpointing aspects of teachers' behaviors that may nurture the development of conflict resolution skills is one way of deepening our insights into children's development in this area (Holloway & Reichardt-Erickson, 1988; Killen & Turiel, 1991). The next section will discuss the role that teachers play in children's development of morality and conflict resolution skills.

Teachers' Contributions to Children's Conflict Resolution Skills

The development of morality and conflict resolution skills constitute a natural and important part of young children's development. Some training studies suggest that adults can successfully coach and train children on effective ways of interacting with their peers (Ladd & Mize, 1990; Spivak & Shure, 1974). Other studies suggest that adults can create a verbal and sociomoral classroom environment which either promotes or hinders children's development (DeVries, Haney & Zan, 1991; DeVries & Zan, 1994; Kostelnik, Stein & Whiren, 1988; Edwards, 1986) and that the quality of the general classroom environment affects children's social problem solving skills (Holloway & Reichhardt-Erickson, 1988).

Although researchers differ in their views on how and to what extent adults affect children's development, they agree that adults who interact with young children in these settings on a daily basis have a major impact upon their social, moral and cognitive development. Six questions about teachers' intervention strategies will be addressed in this section. What are the main conflict intervention strategies used by teachers of young children? How often do teachers intervene? When do teachers intervene? Do teachers vary the use of their intervention strategies? How do teacher intervention strategies affect the outcome of conflicts? Is there a "best" way for intervening in children's conflicts?

Conflict intervention strategies

Most studies interested in teachers' contributions to children's development of conflict resolution skills only observed the effects of adult presence or absence on the outcomes of children's resolution (Besevegis & Lore, 1983; Hay & Ross, 1982; Killen

& Turiel, 1991). Only two studies examined more closely the nature of teacher intervention strategies on the promotion of children's peer interactions during peer conflicts (Bayer, Whaley & May, 1995; Russon, Waite & Rochester, 1990). A third study examined the frequency of several teacher intervention strategies which, theoretically, either promote, disrupt, or restrict children's peer interactions in general. The effects of these teacher intervention strategies on children's actual peer interactions were not examined.

In this literature, two main types of conflict intervention strategies were identified: cessation and mediation. They can be categorized into two types of intervention strategies according to the ownership of the conflict resolution (whether children themselves resolved the conflict with or without teacher assistance, or the teacher resolved it for them).

Cessation strategies refer to interventions which focus upon the external management of conflict situations by stopping conflicts, by telling the children to stop fighting /arguing, telling or directing them on what they should do, and by removing the source of conflict for the children involved. When the focus of a conflict event is on the behaviors which lead to harm, hurt, and violation of rules for example, the tendency is for teachers to equate the conflict with aggressive behaviors and to associate it with a generally negative experience for children (Shantz, 1987a; Shantz, 1987b). Conflicts, thus, must be terminated. The role of the teacher here is one of judge or umpire. Solutions to conflicts are teacher-generated and children are not typically involved in the resolution.

Cessation strategies are the predominant ones used in infant and toddler classrooms (Bayer, Whaley & May, 1995; Russon, Waite & Rochester, 1990). While teachers in the preschool classrooms are found to intervene more frequently to promote communications than teachers in kindergarten classrooms, they also used more redirections than teachers in the kindergarten classrooms (Kemple, David, & Hysmith, 1996). The percentage of cessative, directive/restrictive intervention strategies from two studies of teacher interventions in infant/toddler classrooms ranged from approximately 65% to 72% (Bayer et al., 1995; Russon et al., 1990). On the other hand, the percentage of cessative strategies in the preschool/kindergarten study was 37%, although in the Kemple et al. (1996) study, examination of teacher intervention strategies focused on the broader context of the facilitation of general peer interactions. The results, taken together with those from the Russon et al. (1990) and the Bayer et al. (1995) studies point to the possibility that teachers vary their intervention strategies according to the age of children involved.

Mediation strategies refer to interventions that focuses upon helping the conflicting parties resolve their own conflicts. The difference between the mediation and cessation strategies lies in the ownership of the outcome of conflict resolution. Resolution within this strategy is ultimately child-determined, with teacher's direct or indirect assistance.

In the early childhood curriculum literature, there are strong arguments for the use of mediating / facilitative strategies for teacher intervention in children's conflicts (Bredekamp, 1987; Britz & Richard, 1992; DeVries & Zan, 1995; DeVries, Haney & Zan, 1991; Hay, 1984; Killen & Turiel, 1991; Kostelnik, Stein & Whiren, 1988; Pope,

1986). Such strategies are in keeping with a constructivist perspective, which view conflict and its resolution as important parts of the curriculum rather than as a problem to be managed (DeVries & Zan, 1995). Social conflicts are viewed as opportunities for children to advance their thinking and social skills by recognizing the perspectives of others and for developing mutually agreeable solutions to problems (DeVries & Zan, 1995). Some researchers suggest that opportunities to communicate and interact with others contribute to children's development of social understanding and communicative competence. Teachers in classrooms dominated by mediation strategies "advocate a process of teachers assisting children in identifying the problem, legitimizing feelings relative to the issue, promoting the generation of possible solutions and the determination of a mutually agreeable solution, and implementing that decision" (Bayer, Whaley & May, 1995). Thus, the role of the teacher here is one of facilitator.

Within the context of peer conflicts, helping children understand the intentions of others and learning to coordinate their own needs and intentions with those of others, require teacher strategies which foster the type of peer interaction and exchange that promote the growth of this understanding. Mediation strategies thus fall along a continuum of directiveness, ranging from the suggestion of words to use to resolve a conflict, to the provision of 'supportive presence' (Kemple, David & Hysmith, 1996). They depend on the developmental level and age of the children involved. Since children's conflict behaviors are age-related (Camras, 1984; Caplan, 1991; Dunn & Munn, 1987; Hay & Ross, 1982; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984), teachers' use of these strategies may also depend on the type of conflict behavior shown by children during a given peer conflict event.

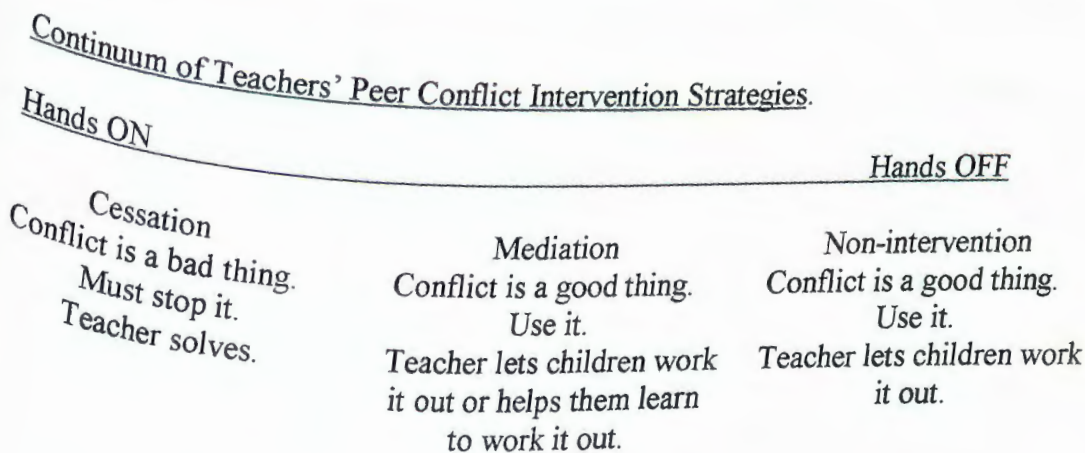
Mediation strategies are associated with particular types of conflict behaviors in children. In a study comparing the behaviors of teachers and children from different types of kindergarten programs, children from the constructivist classroom, where teachers' use of mediation strategies predominated, were found to be more collaborative in their conflict resolution behaviors and used higher levels of negotiation strategies than those from the classroom in which cessation strategies predominated (DeVries, Reese-Learned & Morgan, 1991).

Some researchers recommend that teachers not intervene in children's peer conflicts (Corsaro & Rizzo, 1990; Genishi & Di Paolo, 1982; Killen & Sueyoshi, 1995; Lewis, 1984). The Japanese nursery schools studied by Lewis (1984) represent this approach to conflict intervention. Teachers in these programs are less interested in stopping aggression than in developing children's own ability to stop aggression. They often encourage children to manage their own and other children's problems without teacher intervention. Although these researchers recommend that teachers should abstain from intervening when possible since engagement in the process of conflict resolution is a valuable experience for children's social and moral development, little is known about the incidence and consequences of non-intervention in preschool classrooms (Corsaro & Rizzo, 1990, Genishi & DiPaolo, 1982; Killen & Sueyoshi, 1995; Lewis, 1984).

A small number of studies investigated the effects of teacher non-intervention on the resolution outcomes of children's conflict by observing children in dyadic or triadic peer play groups in the laboratory setting (Besevegis & Lore, 1983; Killen & Turiel, 1991; Siegal & Kohn, 1959). These studies indicate that children are quite

capable of resolving their own conflicts with very little aggression. One study revealed that in the classroom freeplay environment, where teachers intervened in 38% of the conflicts, the proportion of teacher-solved conflicts is very high (58%) compared with the number of child-resolved conflicts (19%). In this same setting, there are also a number of unresolved conflicts (23%). However, for the same group of children, the proportion of unresolved conflicts is significantly higher (60%) in the laboratory setting where teachers intervened only in 5% of the conflicts (Killen & Turiel, 1991). Although differences in the structure of the two settings may have contributed to these findings, the results are nevertheless interesting. When adults do not intervene, the likelihood of conflicts remaining unresolved is significantly higher. However, whether the use of this strategy is associated with the age of children or with particular types of outcomes of conflict resolution in the naturalistic classroom setting has also not been systematically investigated.

If non-intervention is considered as a strategy of intervention, then a continuum can be used to represent these 3 strategies according to the extent of power exertion on the part of the teacher. Figure 1 below illustrates this continuum.



Frequency of teacher intervention

Several studies investigated the nature of teacher interventions in children's peer conflicts and general interactions in infant / toddler and preschool classrooms (Bakeman & Brownlee, 1982; Bayer, Whaley & May, 1995; Kemple, David & Hysmith, 1996; Killen & Turiel, 1991; Russon, Waite & Rochester, 1990). Table 11 presents their findings in relation to variations in the setting, operational definition, and the role of the teacher that was examined.

The frequency of teacher interventions in children's peer conflicts ranged from 20% to 49.3% for infants and toddlers (Bakeman & Brownlee, 1982; Bayer et al., 1995; Russon et al., 1990), to 11% to 38% for children between 3 and 5 years (Bakeman & Brownlee, 1982; Killen & Turiel, 1991). It is affected by several factors (Table 12). Differences in the organization and structure of the classrooms may have contributed to the observed differences in the frequency of adult intervention with children of similar ages in some studies (Killen & Turiel, 1991). Children in classrooms with more structured activities may have a greater awareness of school rules, and need less adult intervention. Age differences are found for the likelihood of teacher intervention. Teachers are more likely to intervene in toddler's (20%) than in preschoolers' (11%) possession disputes (Bakeman & Brownlee, 1982). Variations in the way the role of the teacher is defined and the method of data collection also affects the frequency of teacher intervention.

Factors that elicit teacher intervention

Except for two studies (Kemple, David & Hysmith, 1996; Russon, Waite & Rochester, 1990), most studies of teacher intervention typically looked only at the

frequency of intervention and did not systematically examine the circumstances under which intervention occurs. Findings about the frequency of intervention along with information about the higher frequency of adult-generated solutions to children's conflicts when adults intervene have been used by some researchers to imply that the higher the frequency of intervention, the less conducive the condition for children (Genishi & DiPaolo, 1982; Killen & Turiel, 1991). Yet, there is evidence that infants do actively solicit adult intervention in the childcare classroom setting (Russon, Waite, & Rochester, 1990).

On the other hand, certain types of behaviors during conflict tend to escalate the conflict while others decelerate it (Eisenberg & Garvey, 1981; Perry, Perry & Kennedy, 1990). It is conceivable that teachers' decisions about whether and how to intervene when conflicts occur in the classroom are influenced by the type of conflict behaviors involved. Looking at the frequency of teacher intervention alone provides a limited account of the teacher's role in children's developing resolution skills.

Consequently, some researchers argue that it is more important to examine the way that teachers intervene in children's conflicts rather than merely looking at the frequency of such interventions (Bayer, Whaley & May, 1995; Killen & Nucci, 1995; Russon, Waite, & Rochester, 1990).

Factors affecting teachers' intervention strategies

Some teachers generally vary their teaching and classroom management strategies according to their perceptions of children's level of interpersonal understanding (DeVries & Zan, 1994) or children's personal characteristics, responses and needs (Wolfgang & Wolfgang, 1995). Others tend to use specific strategies with

most children regardless of the circumstances or individual differences (Wolfgang & Wolfgang, 1995). Studies have not systematically investigated if and how teachers vary their conflict intervention strategies.

In 72% of observed instances, teachers in one infant/toddler classroom used cessation strategies aimed at getting the attention of the infants and toddlers, stopping conflicts, providing commentaries on behavior and issuing warnings, articulating and giving rules or expectations, distracting them from conflicts, and directing desired behaviors (Bayer, Whaley & May 1995). They much less frequently, in 23% of the time, used mediation strategies to help children determine the nature of the problem and to develop ways for resolving the dispute. Similar proportions (approximately 65%) are found in a second study of teacher interventions in another infant/toddler classroom (Russon, Waite & Rochester, 1990).

A third study examined the frequency of several teacher intervention strategies which, theoretically, either promotes or disrupts and restricts children's peer interactions in general. It did not examine the effects of these teacher intervention strategies on children's actual peer interactions. Among twenty-five private, Head Start and public school teachers' peer interaction intervention strategies, cessation strategies which terminated peer interaction accounted for 22% of all interventions (Kemple, David & Hysmith, 1996). A comparison of kindergarten and preschool teachers' intervention behaviors in this study revealed that preschool teachers were found to exhibit higher frequencies of intervention to promote peer interaction, higher proportions of redirection and lower proportions of disruption of peer interaction than did kindergarten teachers. However, other contextual factors, such as differences in

public and private school's setting and structure, may be significant sources of influence (Kemple et al., 1996; Killen and Turiel, 1991). Although in the Kemple et al. (1996) study, examination of teacher intervention strategies focused only on the broader context of the facilitation of general peer interactions, the results, taken together with those from Russon et al. (1990) and Bayer et al. (1995), nevertheless point to the possibility that teachers vary their strategies according to the age of children involved.

With children's increasing ability to learn how to get along with each other and to solve their own problems, teachers should, theoretically, also find more opportunities to help them learn to get along and resolve their own problems. Cessation strategies aimed at stopping the conflict and fixing it for the children do not promote the development of these abilities in young children. Mediation strategies do. Non-intervention strategies are more likely than cessation strategies to offer children the opportunity to develop these growing abilities, although its effects have not been systematically examined in the naturalistic classroom setting.

Since children's conflict behaviors are age-related (Camras, 1984; Caplan, 1991; Dunn & Munn, 1987; Hay & Ross, 1982; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984), teachers' use of these strategies may also vary depending on the type of conflict behavior shown by children during a given peer conflict event. As with cessation strategies, findings about whether mediation strategies are associated with particular types of conflict resolution outcomes has been reported in only one study. Children from the constructivist classroom, which reflected predominant use of mediation strategies by teachers, were found to resolve

70% of their conflicts within the dyadic, board game situation on their own (DeVries, Reese-Learned & Morgan, 1991). The same study also revealed that children from the classroom in which mediation strategies are predominantly used by teachers also used higher levels of negotiation strategies than those from the classroom in which cessation strategies are used predominantly by the teachers.

Effects of teacher strategies on the outcomes of conflict

Several studies investigated the effects of teacher intervention and non-intervention on the outcomes of children's conflict resolution in terms of the effects of adult presence or absence during children's conflicts (Bakeman & Brownlee, 1982; Killen & Turiel, 1991). Teacher presence in children's conflicts in the classroom has been equated with intervention and teacher absence with non-intervention in some of these studies. Killen & Turiel (1991) examined the effects of teacher intervention versus non intervention on the outcome of conflicts by comparing the same group of children in the classroom and in laboratory setting triadic peer group sessions. In the laboratory setting, teachers were absent so that interventions will be kept under control at a minimum to ensure safety. In the naturalistic classroom setting, teachers were naturally present and assumed to be intervening as conflicts arise.

Although, Lewis (1984) did not systematically investigate the frequency of teacher intervention in Japanese nursery schools, a systematic examination of the location of the teacher in relation to the children within the classroom was made to assess teachers' exertion of control. Here again, the association was made between presence and intervention. Most of the other studies appear to have conceptualized their research following a similar assumption equating teacher presence in the

classroom with teacher intervention (Bakeman & Brownlee, 1982; Bayer, Whaley & May, 1995; Genishi & Di Paolo, 1982; Russon, Waite & Rochester, 1990).

One exception was found in Besevegis & Lore's (1983) investigation of the effects of adult presence and absence on the frequency of children's "negative behaviors" with the same group of children in the laboratory setting. Adult presence was not equated with intervention, as in other studies. Rather, "presence," in that study, was a passive, non-intervening presence. Besevegis & Lore found that in the presence of such an adult, the amount of verbal and physical aggression increased among the children. It decreased when the adult was absent (Besevegis & Lore, 1983). However, the increase in aggression in the presence of a passive, non-intervening adult may be accounted for by the fact that children may read in the adult's passivity that aggressive behaviors are acceptable and that their safety will be protected (Ross & Conant, 1992).

As Killen & Turiel (1991) have noted, the role of the adult varied as a function of the research design. Some studies investigated the role of the teacher in terms of the effects of presence or absence (Besevegis & Lore, 1984; Killen & Turiel, 1991), others also examined the actual frequency of intervention (Bakeman & Brownlee, 1982; Bayer, Whaley & May, 1995; Killen & Turiel, 1991; Russon, Waite & Rochester, 1990).

Since examining only the frequency of teacher intervention or looking only at the effects of adult presence or absence provides a limited account of the teacher's role in children's developing resolution skills, some researchers argue that it is also important to examine other contextual variables which may influence the nature of

teacher interventions in children's conflicts (Bayer, Whaley & May, 1995; Russon, Waite, & Rochester, 1990). Yet, only a few studies have investigated the circumstances under which teacher intervention occurs (Lewis, 1984; Russon, et al., 1990), and the effects of different intervention strategies have on children's conflict resolution (Bayer, et al, 1995).

Findings relating the outcomes of children conflict resolution to different types of teacher intervention strategies was reported in one study (DeVries, Reese-Learned & Morgan, 1991). A comparison was made between the outcomes of conflict resolution of children from three kindergarten classrooms, all located in the public school setting, and each representing a different type of program: direct-instruction, eclectic and constructivist. Children were observed in pairs playing a board game in the laboratory setting. Coding of teachers' interpersonal negotiation strategies was derived from a companion study of teachers' enacted interpersonal understanding (DeVries, Haney & Zan, 1991). These strategies were adapted from Selman's (1980) developmental levels of negotiation strategies. Teachers' intervention strategies in the direct-instruction classroom can be characterized as predominantly cessative. Those in the constructivist classroom can be characterized as predominantly mediative. Those in the eclectic classroom reflect a combination of both types. Findings revealed that children from the direct-instruction classroom resolved 40% of their peer conflicts within the board game situation, compared with 70 % from those from the constructivist classroom. Children from the classroom characterized by the use of cessation strategies by the teachers were also found to use lower levels of negotiation strategies compared with those from the constructivist classroom in which

teachers more often used mediation strategies (DeVries, Reese-Learned & Morgan, 1991).

Assessing the effectiveness of different types of teacher intervention strategy on children's moral and social development

Although researchers agree that adults have significant impact on children's development of morality and conflict resolution skills, there is disagreement about whether children's acquisition of moral development is based upon their active construction of knowledge through peer interaction, or upon learning through direct transmission of knowledge by adults (Killen & Nucci, 1995). Some developmental theorists assert that morality cannot be directly taught by adults (Piaget, 1932; Turiel, 1983). Children's development of morality and conflict resolution skills is ultimately most influenced by their direct experiences in real-life conflict situations (Arsenio & Lover, 1995; Genishi & DiPaolo, 1982; Hay, 1984; Killen & Turiel, 1991; Killen & Nucci, 1995; Russon, Waite & Rochester, 1990).

The notion that children's acquisition of moral development is based upon their active construction of knowledge through peer interaction has been supported by some empirical research (Killen & Nucci, 1995; Ross & Conant, 1992). Studies of mothers' and caregivers' interventions in the conflicts of toddlers and two year-olds' revealed that adults are not always consistent in the way they intervened (Ross, Tesla, Kenyon, & Lollis, 1990; Russon, Waite & Rochester, 1990). Some researchers argue that this inconsistency in the reinforcement of behaviors and concepts of fairness implies that direct modeling of adult behavior cannot be an adequate explanation for children's acquisition of morality (Killen & Nucci, 1995; Russon, Waite & Rochester, 1990).

Other sources of experience, such as peer interaction, are more likely explanations (Killen & Nucci, 1995). Thus, children must be given opportunities to interact and communicate with others when possible, especially during peer conflicts (DeVries & Zan, 1994; Genishi & DiPaolo, 1982; Killen & Turiel, 1991).

Since cessation strategies are aimed at terminating conflicts, they serve to terminate opportunities for children to interact and communicate with one another. If children's development of morality and conflict resolution skills are ultimately most influenced by their direct experiences in real-life peer conflict situations and knowledge about them are constructed by the children through these experiences, then cessation strategies are not the most effective strategies for promoting children's development in these areas.

By contrast, non-intervention provides this opportunity for children to communicate and interact with one another and to work out their own differences. However, there may be times when children are not able to do this on their own. For example, young preschool children who are beginning to develop their understanding about others' perspectives tend to use more insistent behaviors during peer conflicts (Camras, 1984; Caplan, 1991; Laursen & Hartup, 1989; Phinney, 1986; Sackin & Thelen, 1984). Since insistent behaviors tend to be followed by more insistent behaviors, escalating the conflict (Eisenberg & Garvey, 1981), physical harm may result, jeopardizing the safety of the children involved. Children who are not developmentally capable of understanding others' perspectives are probably also not able to generate mutually agreeable solutions to their own problems in their conflicts. Non-intervention, in these situations, is also not the most effective way for promoting

children's moral and social development. However, adults can help, not by stopping or by imposing solutions for the conflict, but by pointing out differences in perspectives and by helping children generate solutions to their own problems.

Strong arguments for the use of mediating / facilitative strategies for teacher intervention in children's conflicts are found in the early childhood education literature (Bayer, Whaley, & May, 1995; Bredekamp, 1987; Britz & Richard, 1992; DeVries & Zan, 1994; DeVries, Haney & Zan, 1991; Edwards, 1986; Hay, 1984; Killen & Nucci, 1995; Killen & Turiel, 1991; Kostelnik, Stein & Whiren, 1988). Consistent with Vygotsky's theory of the zone of proximal development and ideas of scaffolding as a way to facilitate children's development (Tudge & Rogoff, 1990), some educators and researchers emphasize the importance of varying the degree of guidance according to the needs and abilities of the children involved (Killen & Nucci, 1995), reflecting sensitivity to children's developmental abilities or "developmentally appropriate practice" (Bredekamp, 1987). Within the context of peer conflicts, helping children understand the intentions of others and learning to coordinate their own needs and intentions with those of others, require teacher strategies which foster the type of peer interaction and exchange that promote the growth of this understanding. Such strategies are in keeping with a constructivist perspective which view conflict and its resolution as important parts of the curriculum rather than as a problem to be managed (DeVries & Zan, 1995). Teachers in classrooms dominated by mediation strategies provide opportunities for children to communicate and interact with others by advocating "a process of teachers assisting children in identifying the problem, legitimizing feelings relative to the issue, promoting the generation of possible

solutions and the determination of a mutually agreeable solution, and implementing that decision" (Bayer, Whaley & May, 1995).

Mediation strategies are also associated with particular types of conflict behaviors in children. In a study comparing the behaviors of teachers and children from different types of kindergarten programs, children from the constructivist classroom, where teachers' use of mediation strategies predominated, were found to be more collaborative in their conflict resolution behaviors and used higher levels of negotiation strategies than those from the classroom in which cessation strategies predominated (DeVries, Reese-Learned & Morgan, 1991). Since collaborative behaviors are more competent types of behaviors than insistent behaviors (Eisenberg & Garvey, 1981; Putallaz & Sheppard, 1992), and since mediation strategies are associated with collaborative conflict behaviors, they may be the most effective strategies for facilitating children's development of morality and conflict resolution skills.

The problem

Although there are strong theoretical arguments for the use of mediating / facilitative strategies for teacher intervention in children's conflicts in the early childhood curriculum literature (Bayer, Whaley, & May, 1995; Bredekamp, 1987; Britz & Richard, 1992; DeVries & Zan, 1994; DeVries, Haney & Zan, 1991; Edwards, 1986; Hay, 1984; Killen & Nucci, 1995; Killen & Turiel, 1991; Kostelnik, Stein & Whiren, 1988), cessation strategies are the predominant ones used in infant and toddler classrooms (Bayer, Whaley & May, 1995; Russon, Waite & Rochester, 1990). While teachers in the preschool classrooms were found to intervene more frequently to

promote communications than teachers in kindergarten classrooms, they also used more redirections than teachers in the kindergarten classrooms (Kemple, David, & Hysmith, 1996). The percentage of cessative, directive/restrictive strategies from the Bayer et al. (1995) infant/toddler study was 72%. The percentage in the preschool / kindergarten study was 37%.

The percentage of cessation strategies used by teachers showed a decrease for older preschool children, indicating that teachers do vary their strategies according to the age of the children. However, the percentages from the infant/toddler studies (approximately 72% and 65%) are very high (Bayer, Whaley & May, 1995; Russon, Waite & Rochester, 1990). A study of children's conflicts in the naturalistic classroom freeplay setting indicates that teacher-generated resolutions were significantly related to conflicts involving physical harm (Killen & Turiel, 1991). This suggests the possibility that teachers use cessation strategies to stop physical harm in children's conflicts. However, in this study, teacher intervention strategies were not systematically examined.

In the Killen & Turiel (1991) study, if teacher-generated resolutions imply the use of cessation strategies aimed at stopping conflicts, then teacher-generated resolutions for conflicts involving physical harm also imply that children were not assisted or encouraged to see each other's point of view, and to learn to generate mutually agreeable solutions to their own problems - even if those problems involved physical harm. Ending physical harm is not the same as ending the conflict. If teachers are predominantly using cessation strategies when they intervene in children's peer conflicts, they are taking away the opportunities for children to communicate and

interact with one another, thereby not promoting children's development of morality and conflict resolution skills.

Methodological issues in the research literature

Conclusions from previous studies about the effects of children's age on their conflicts and the way teachers intervened in these conflicts are difficult because of several methodological problems. First, the behavior sampling and on-site live coding methods of observation employed in some studies might yield smaller incidence of conflict than coding from audio or videotapes. Some studies employed the behavior sampling method of data collection, noting any conflict that arose in the classroom from a central position of the room (Dawe, 1934). Given the brief duration of conflict, the less insistent, non-escalated conflicts could easily have gone unnoticed. In addition, other conflicts that may have arisen while an observer is taking notes about one conflict were not recorded (Dawe, 1934). The frequency of conflicts ranged from 1 per 8.9 minutes (Killen & Turiel, 1991) and 1 per 3.4 hours (Dawe, 1934), to 1 per 4.4 minutes (Corsaro & Rizzo, 1990). Thus, the frequency of conflicts varies according to the method of data collection. Systematic videotaping of as many individual target children as possible in each classroom would minimize these effects.

A second problem involves differences in the operational definition of conflict that makes comparisons of children's peer conflicts across studies difficult. Some studies focused on "negative behaviors." Others examined "possession," "peer," or "all" conflicts. Yet others employed different criteria for identifying conflicts. For example, a protest or resistance to the action or inaction of another typically signals the onset of conflict (Hay, 1984). The end of the event is signaled by a clear indication of

the resolution or non-resolution of the topic of dispute, when the topic is dropped and neither party continues to pursue that issue, or when there is a change in topic (Dawe, 1934; Eisenberg & Garvey, 1981; Killen & Naigles, 1995; Killen & Turiel, 1991).

Some researchers employ a 10-second interval in which neither party continues to pursue the issue of dispute, to signal the end of the conflict event (Laursen & Hartup, 1989; Russon, Waite & Rochester, 1990). Others use a change in the topic of conflict to signal a new conflict (Dawe, 1934; Killen & Naigles, 1995; Killen & Turiel, 1991).

Thus, even though no time lapsed between a shift in the issue, any shift signals the onset of a new conflict event. Consider the following example:

(Turns) [Sally adds blocks to Bobby's structure]

(1) Bobby: NO! [The block falls off.]

(2) Sally: [continues to put block on structure]

(3) Bobby: NO-OH! I don't need it! [Forcefully takes the block off her hands]

(4) Sally: [pushes him]

(5) Bobby: [hits her]

(6) Sally: [cries -- goes off to tell teacher]

(7) Bobby: [sees her] Miss P, Sally's hitting [tells teacher before Sally gets there]

Teacher: [looks over; does nothing]

Jenny: [a bystander] Sally messed that up [reporting situation]

Teacher: Sally, no hitting. [Bobby and bystander continue their play]

The conflict started when Sally added blocks to Bobby's structure. Bobby protested that action (turn 1). The issue of dispute here is about play ideas. Sally ignored Bobby's protest (turn 2) and the conflict continued with another protest from Bobby (turn 3). This time, Bobby used force to take the block from Sally (turn 3). The issue of dispute remained the same and no resolution was achieved. However, Sally then pushed in retaliation to Bobby's use of force in taking the block from her. She pushed him (turn 4) and he then hit her (turn 5). Sally's push signaled a shift in the issue of dispute from the original play idea issue to physical harm (pushing). According to some researchers, this shift signals a new conflict event (Dawe, 1934; Killen & Naigles, 1995; Killen & Turiel, 1991). Thus, for these researchers, turn 4 becomes a new conflict at turn 1, making this incident account for 2 conflict events.

This method of identifying conflicts according to shifts in the issue of disputes has been widely used in a number of studies of children's conflicts (Dawe, 1934; Killen & Naigles, 1995; Killen & Turiel, 1991). It has been helpful in identifying the range of issues of conflict. However, children's conflicts are dynamic (Shantz, 1987b). As illustrated in the example above, it is not uncommon for the issue of protest / conflict to vary as the conflict evolves. Identifying conflicts as distinct, unrelated events according to the issue of each conflict limits the possibilities for examining the dynamic, evolving nature of children's conflicts and how it may elicit teacher intervention. These effects are minimized when the incidence, issues, insistence, escalation, and resolution of conflict are examined in a single study using a common operational definition of conflict.

Third, some studies investigated children's conflict in homogeneously age-grouped classrooms (Bakeman & Brownlee, 1982; Russon, Waite & Rochester, 1991; Corsaro & Rizzo, 1990). Others observed children in mixed-age classrooms (Bayer, Whaley & May, 1995; Dawe, 1934; Genishi & Di Paolo, 1982). Some studies only examined the conflicts of infants and toddlers (Russon, Waite & Rochester, 1991), while others observed in different classrooms with children spanning from 2 to 5 years of age (Bakeman & Brownlee, 1982; Killen & Turiel, 1991). Conclusions about the effects of age on children's conflicts can only be inferred by piecing together the findings of all these different studies. They are severely marred by study to study variations in observation methods and settings. Examining all three age groups (2, 3, and 4 year-olds) in homogeneously grouped classrooms in a single study would make interpretations possible for the effects of children's age on their peer conflicts.

Fourth, previous studies of children's conflicts conducted in the naturalistic classroom setting typically used between one and three classrooms, counting all conflicts observed within a given time period. Although ideally suited to assess individual differences, this method permits the addition of multiple conflict events for some children to the data set, thereby increasing the possibility of over representing these individuals. This method of data collection, combined with the on-site live coding method of observation increases the possibility of over representing the more strident conflicts of conflict prone children. This problem of non-independence is exacerbated when teacher interventions are of interest because the data then over represent the responses of teachers to these particular children. These effects are minimized when the sample size is increased and target children are systematically

observed so that each child has equal opportunity to contribute to the data pool. Although some children may still be involved in more than one conflict in the data pool, the chances of over-representation by conflict prone children is greatly minimized when only one conflict event generated by each target child observation is admitted for analysis.

Conclusions

Although studies have begun to investigate the role that teachers play in children's developing conflict resolution skills, there are still many aspects of the teachers' role that need further investigation. Examination of previous studies revealed two main gaps in the research about the role that adults play in children's development of conflict resolution skills. The first involves limited information about young children's peer conflicts and teacher interventions in these conflicts. Although preschool children's peer conflicts have been examined in numerous previous studies, age variations between 2 and 4 years in children's conflict and teacher intervention have not been examined together in a single study in the naturalistic classroom setting.

A second gap comes from the limitations of previous studies. These limitations stem from small sample sizes (1 to 3 classrooms), non-independence of data, and on-site coding of conflict behaviors. The problem of non-independence is exacerbated when teacher interventions are of interest because the data then over represent the responses of teachers to high conflict children. Conducting observations in more classrooms across more age groups, using a common operational definition of conflict could reduce these problems. Systematic videotaping of target children can enable a more complete representation of conflict events. Observing children in

homogeneously age-grouped classrooms and admitting no more than one conflict per child to the data pool would make it easier to draw conclusions about developmental differences in children and teachers.

Appendix N
Tables

Table 1.

Comparison of the Incidence, Issues, Insistence, Escalation, Solicitation, andResolution of Conflict Across 3 Age Groups.

	Age Groups			χ^2 / F	df	p
	2 year-olds	3 year-olds	4 year-olds			
Incidence	75.8% (72)	81.3% (126)	82.7% (124)	2.05 ^a	2	0.40
Conflict Issues				43.34 ^a	10	0.00*
Physical Harm	13.9% (10)	2.4% (3)	9.7% (12)	9.50 ^b	2	0.01*
Psychological Harm.	1.4% (1)	7.1% (9)	1.6% (2)	6.74 ^b	2	0.03*
Distribution	77.8% (56)	58.7% (74)	46.8% (58)	18.03 ^b	2	0.00*
Play /Ideas	5.6% (4)	26.2% (33)	36.3% (45)	22.73 ^b	2	0.00*
Social Convention	1.4% (1)	5.6% (7)	5.6% (7)	2.23 ^b	2	0.33
Escalation	26.4% (19)	21.4% (27)	14.5% (18)	4.35 ^a	2	0.11
Solicitation	1.4% (1)	9.5% (12)	9.7% (120)	5.27 ^a	2	0.07
Resolution	26.14% (19)	33.3% (42)	47.6% (59)	10.12 ^a	2	0.01*
Insistence (<u>M</u>)	2.82	2.42	2.04	11.7 ^c	2/319	0.00*
(SD)	1.19	1.06	1.08			

^aOverall chi-square value. ^bIndividual issue versus an aggregate of the other 4 issues.

^cF ratio for insistence.

* $p \leq 0.05$.

Table 2.

Means and Standard Deviations for the Level of Insistence of Conflict Behavior for Escalated and Non-escalated Events Across the 3 Age Groups (N =322).

	Mean Level of Insistence			F ratio	df	p
	2 year-olds ^a	3 year-olds ^b	4 year-olds ^c			
Escalation				25.69	1/320	0.00**
Escalated (SD)	3.53 (.96)	2.93 (1.24)	2.50 (1.42)			
Non-escalated (SD)	2.57 (1.17)	2.28 (.97)	1.96 (1.00)			
F(df); p	10.29 (1,70), p = .00**	8.25 (1,124), p = 0.01**	3.87 (1,122), p = .05*			

*p < 0.05. **p < 0.01.

Table 3.

Means and Standard Deviations for the Levels of Insistence of Conflict Behavior for Escalated and Non-escalated Events Across the 3 Age Groups for Teacher Intervened Conflicts (N =101).

	Mean Level of Insistence			F ratio	df	p
	2 year-olds ^a	3 year-olds ^b	4 year-olds ^c			
Escalation				43.07	1 / 99	0.00**
Escalated	3.87 (.35)	3.69 (.48)	3.78 (.44)			
Non-escalated	3.50 (.51)	3.00 (.00)	3.19 (.40)			
F(df); p	5.8 (1,35), p = .02*	5	5.5 (1,37), p = 0.0**			11.6 (1,23), p = .00**

^an = 37. ^bn = 39. ^cn = 25. ^dn = 1.

*p < 0.05. **p < 0.01.

Table 4.

Percentages of the Frequency and Strategy of Teacher Intervention, and the Means and Standard Deviations for the latency of Intervention Across the 3 Age Groups.

	2 year-olds ^a	3 year-olds ^b	4 year-olds ^c	Results	p
Intervention (%)	51.4%(37)	33.3%(39)	20.2%(25)	$\chi^2(2) = 20.65$	0.00*
				Linear Assoc. = 19.78	0.00*
Latency (seconds)	8.97s.(37)	16.0s.(39)	21.92s.(25)	$F(2,98) = 6.47$	0.00*
	SD=9.95	SD=14.55	SD=18.17	Linear Assoc. = 12.55	0.00*
Mediation Strategy	16.2%(6)	30.8%(12)	16.0%(4)	$\chi^2(2) = 3.01$	0.22
				Linear Assoc. = 0.04	0.85

^an = 72. ^bn = 126. ^cn = 124.

*p ≤ 0.05 level.

Table 5.

Means and Standard Deviations for the Latency of Teacher Intervention for Escalation, Solicitation and Issues of Conflict Across the 3 Age Groups

	Latency for 3 Age Groups			F ratio	df	p
	2 year-olds ^a	3 year-olds ^b	4 year-olds ^c			
Escalation				11.36	1 / 99	0.00*
Escalated	14.80 (11.92)	23.46 (19.64)	28.33 (19.91)			
Non-escalated	5.00 (5.84)	12.27 (9.66)	18.31 (16.69)			
Solicitation				42.58	1 / 99	0.00*
Solicited	5.00 (.) ^d	29.33 (17.33)	30.75 (16.32)			
Non-solicited	9.08 (10.07)	10.07 (7.99)	13.77 (16.33)			
Issues				0.65	4 / 96	0.63
Physical Harm	5.83 (7.55)	23.00 (24.27)	9.00 (9.85)			
Psych. Harm	18.00 (.) ^d	15.25 (11.87)	29.00 (.) ^d			
Distribution	9.24 (10.58)	16.29 (16.48)	22.00 (17.34)			
Play ideas	0.00	15.86 (10.14)	19.00 (21.68)			
Social Conv.	11.00 (.) ^d	10.25 (6.18)	37.00 (22.00)			
Physical Harm				5.33	1 / 99	0.02*
Yes	12.56 (15.4)	28.25 (23.38)	25.60 (23.20)			
No	7.82 (7.49)	12.84 (9.50)	21.00 (17.31)			

^an = 37. ^bn = 39. ^cn = 25. ^dn = 1.

*p < 0.05. **p < 0.01.

Table 6.

Logistic Regression Table for 3 Teacher Background Variables and Teachers' Use of Mediation Strategies.

Predictors	B	S.E.	Wald	df	Sig.	R	Odds ratios
Level of Educ.	0.64	0.28	5.21	1	0.02*	0.17	1.90
Years of experience	0.06	0.06	0.95	1	0.33	0.00	1.06
ECE (1)	-0.02	0.28	0.01	1	0.93	0.00	0.98

*significant at $p \leq 0.05$.

Table 7.

Distribution of the Frequency of Mediation Strategies Used by Teachers in the 8 Centers.

	Centers							
	1	2	3	4	5 ^a	6 ^a	7	8
% Mediation	0%	0%	0%	10%	50%	52.9%	21.4%	18.2%
(n)		(0)	(0)	(0)	(2)	(6)	(9)	(3)

^a Accredited centers.

Table 8.

Comparison of the Percentage of Mediation Strategies in Accredited and Non-accredited Centers.

		Mediation	χ^2	df	p
2's	Accredited	44.4% (4)	6.98	1	0.01*
	Non-accredited	7.1% (2)			
3's	Accredited	61.5% (8)	8.67	1	0.00*
	Non-accredited	15.4% (4)			
4's	Accredited	42.9% (3)	5.22	1	0.02*
	Non-accredited	5.6% (1)			

*Significant at $p < 0.05$.

Table 9.
Frequencies of Conflict for Selected Studies with Children 5 Years and Under.

Studies	Setting	Age (M yr.) (range)	# Classes # Children	Time Observed	# Conflicts	Frequency of Conflicts
Bakeman & Brownlee 1982	classroom	1:6	1	113 min	192	1 / 5.1 min
	freeplay	1 - 2	12			
		3:8	1	77 min	79	1 / 11 min
		3:4 - 4:0	12			
Bayer, Whaley & May, 1995	classroom	1:6	1	720 min	274	1 / 2.6 min
	freeplay	0:6 - 3:0	14			
Corsaro & Rizzo (1990)	classroom	3 to 4	2	480 min	110	1 / 4.4 min
	freeplay	2:10 - 4:10	50			
Dawe 1934	freeplay in & outdoor	3:6 2 - 5	na ^a	3525 min	200	1 / 3.4 hr
Genishi & DiPaolo 1982	freeplay & group time	3 to 5	1	630 min	189	1 / 3.3 min
		na ^a				
Killen & Turiel 1991 School A only	freeplay indoor & outdoor	3:7	1	570 min	61	1 / 9.3 min
			18			
	laboratory peer play			15 min per session	201	1 / 3.6 min
Killen & Turiel 1991 Schools: A, B & C	freeplay indoor & outdoor	3:10 2:10 - 5:1	3	1710 min	193	1 / 8.9 min
			69 ^b			
Russon, Waite & Rochester 1990	classroom	1:2	1	480 min	144	1 / 3.3 min
	activities	1:0 - 1:3	12			

^a not reported.

^b n (school A) = 18, n (school B) = 34, n (school C) = 17.

Table 10.
Selman's Negotiation Strategies by Developmental Level.

Developmental levels of interpersonal negotiation strategies	Interpersonal negotiation strategies in the Other-transforming Orientation	Interpersonal negotiation strategies in the Self-transforming Orientation
Level 0 <u>Egocentric</u>	Use of impulsive, physical force to get self's goal; grabs, verbally drowns out other's wishes	Use of unreflective, impulsive, withdrawal , responds with robot-like obedience
Level 1 <u>Subjective</u>	Use of willful one-way orders to control other for self's way; orders others, employs one-way fairness	Makes weak tentative initiatives; readily gives into other; acts victimized; appeals to source of perceived power from <u>position of helplessness</u>
Level 2 <u>Reciprocal</u>	Uses friendly persuasion, seeks allies for support of self's ideas, goal-seeking through impressing other with self's talents, knowledge, ...	Asserts self's wants but makes these secondary to other's wants; follows but offers input into other's lead, confronts marked inequality
Level 3 <u>Mutual</u>	Anticipates and integrates possible reactions of other to self's suggestions, balances focus on relations with focus on self's concrete goals, negotiate with a view to relational consistency over time.	

Table 11.
Variations in the Setting, Operational Definition of Conflict Used, Method of
Examining the Role of the Teacher, and the Observed Frequency of Teacher
Intervention.

Studies w/ M age(yr.) (Age range)	Setting & Role of teacher examined	Frequency of conflict	Frequency of intervention	Teacher strategies examined
Bakeman & Brownlee, '82 1:6 vs 3:8 (1:0 - 2:0) vs (3:4 - 4:0)	Freeplay: Intervene OR not intervene	1 / 6.5 min vs 1 / 12.5 min (113 vs 77 min n = 192 vs 79)	toddlers: 20% pre-K: 11%	none
Bayer, Whaley, & Rochester, '90 1:6 (0:6 - 3:0)	Freeplay indoor activities: Intervene or not Interv.	1 / 2.63 min (720 min, n = 274)	49.3%	call, stop, rule, why, ask, to do, tell, peer voice.
Kemple, David, & Hysmith, '90 Pre-K & Kindergarten	Classroom activities: Private, Head Start, & public. Fostering peer interactions	na	1 / 3.3 min ^a	disruptive, restrictive, facilitative.
Killen & Turiel, '91 School A 3: 7 (2:10 - 3: 8)	In / outdoor freeplay. Presence / absence: intv. / not intervened	1 / 9.3 min (570 min, n = 61)	38% ^a (50.4%) ^b	none
	Laboratory: 48 triadic sessions. No teachers.	1 / 3.6 min (720 min, n = 201)	not studied	none
Preschools A, B, C. 3: 10 (2:10 - 5: 1)	In / outdoor freeplay. Intervened or not intervened	1 / 8.86 min (1710 min, n = 193)	27. 3% (9 - 38%)	none
Russon, Waite, & Rochester '90	Classroom activities	1 / 3.3 min (480 min, n = 144)	38%	commands, distractions, assistance, joining-in.

^a frequency for all teacher interventions.
^b calculated from 2 reported categories of "negative" peer conflict behaviors: protests
and sharing.

Table 12.
Comparison of the Frequency of Intervention Findings with Respect to the Methods of Data Collection, Age of Children, and the Frequency of Conflicts Among Studies of the Teacher's Role in Naturalistic Classroom Settings.

Studies	Mean age (range) of children	Methods of data collection	Frequency of teacher intervention
Russon, Waite & Rochester (1990)	1: 2 (1: 0 - 1: 3)	Transcripts for coding generated from two 20-minute videotaped samples taken per focal infant, in the classroom setting. Identified all peer social encounters, then sub categories of these encounters.	50. 4%
Bayer, Whaley, & May (1995)	1: 6 (0: 6 - 3: 0)	4 remote controlled pan-and-tilt video cameras & 7 microphones were used to tape thirty-one 2-hour segments of children in classroom freeplay activities. Six 2-hour tapes were randomly selected for coding.	49. 3%
Bakeman & Brownlee (1982)	1: 6 (1: 0 - 2: 0)	Several target children were observed each day in random order for periods of 5-minutes each. recorded.	20%
	(3: 4 - 4: 0)		11%
Kemple, min David & Hysmith (1990)	pre-k & kindergarten	Observed 25 teachers (12 kdg; 13 pre-k) for three 30-min periods during freeplay, using event sampling, producing a total of 75 transcripts of teacher involvement in peer interactions.	1 / 3.3
Killen & Turiel (1991)			
School A	3: 7 (2: 10 - 3: 8)	Transcripts for coding generated from 30-minute observations of all social conflicts, between T & C & between peers, during indoor and outdoor freeplay, using running narrative records, done twice per week, for 4 months.	38%
School B	3: 6 (2: 10 - 4: 9)		9%
School C	4: 2 (3: 5 - 5: 1)		35%
Schools A, B & C	3: 9 (2: 10 - 5: 1)		27.3%

REFERENCES

- Astington, J. (1993). The Child's Discovery of the Mind. Cambridge, MA: Harvard University Press.
- Bakeman, R., & Brownlee, J. R. (1982). Social rules governing object conflicts in toddlers and preschoolers. In K. H. Rubin & H. S. Ross (Eds.), Peer relations and social skills in childhood (pp. 99 - 111). New York, NY: Springer.
- Bakeman, R., & Gottman, J. M. (1986). Observing interaction: An introduction to sequential analysis. New York, NY: Cambridge University Press.
- Bartsch, K., & Wellman, H. (1995). Children Talk About the Mind. New York, NY: Oxford University Press.
- Bayer, C., Whaley, K., & May, S. (1995). Strategic assistance in toddler disputes: II. Sequences and patterns of teacher message strategies. Early Education and Development, 6 (4), 405 - 432.
- Berk, L. (1985). Relationship of caregiver education to child-oriented attitudes, job satisfaction, and behavior towards children. Child Care Quarterly, 14, 103-129.
- Besevegis, E., & Lore, R. (1983). Effects of an adult's presence on the social behavior of preschool children. Aggressive Behavior, 9, 243 - 252.
- Boisen, M. A. (1992). The relation between the length of play period and the frequency of reported conflicts by preschool children. Education and Treatment of Children, 15 (4), 310 - 319.
- Bredekamp, S. (1987). Developmentally appropriate practice in early childhood programs serving children from birth through age eight. Washington, D.C.: National Association for the Education of Young Children.

- Bredekamp, S. & Copple, C. (1997). Developmentally appropriate practice in early childhood programs serving children from birth through age eight. Washington, D.C.: National Association for the Education of Young Children.
- Britz, J., & Richard, N. (1992). Problem solving in the early childhood classroom. Washington, D.C.: National Education Association of the United States.
- Bryant, B. K. (1992). Conflict resolution strategies in relation to children's peer relations. Journal of Applied Developmental Psychology, 13, 35 - 50.
- Camras, J. A. (1984). Children's verbal and nonverbal communication in a conflict situation. Ethology and Sociobiology, 5, 257 - 268.
- Caplan, M., Vespo, J., Pederson, J., & Hay, D. F. (1991). Conflict and its resolution in small groups of one- and two- year-olds. Child Development, 62, 1513 - 1524.
- Carlsson-Paige, N. & Levin, D. (1992). When push comes to shove – reconsidering children's conflicts. Child Care Information Exchange, March issue, 34, 34 – 37.
- Chapman, M., & McBride, M. (1992). The education of reason: Cognitive conflict and its role in intellectual development. In C. Shantz & W. Hartup (Eds.), Conflict in child and adolescent development (pp. 36 - 69). Cambridge, MA: Cambridge University Press.
- Corsaro, W., & Rizzo, T. (1990). Disputes in the peer culture of American and Italian nursery-school children. In A. Grimshaw (Ed.), Conflict talk: Sociological investigations of arguments in conversations (pp. 21 – 66). NY: Cambridge University Press.

- Crane, D., & Tisak, M. (1995). Mixed-domain events: The influence of moral and conventional components on the development of social reasoning. Early Education and Development, 6 (2), 169 - 179.
- Dawe, H. (1934). An analysis of two hundred quarrels of preschool children. Child Development, 5, 139 - 157.
- Deutch, M. (1973). The resolution of conflict: Constructive and destructive processes. New Haven, CT: Yale University Press.
- DeVries, R., Haney, J. P., & Zan, B. (1991). Sociomoral Development in Direct-Instruction, Eclectic, and Constructivist Kindergartens: A study of teachers' enacted interpersonal understanding. Early Childhood Research Quarterly, 6, 449 - 472.
- DeVries, R., Reese-Learned, H., & Morgan, P. (1991). Sociomoral Development in Direct-Instruction, Eclectic, and Constructivist Kindergartens: A study of children's enacted interpersonal understanding. Early Childhood Research Quarterly, 6, 473 - 517.
- DeVries, R., & Zan, B. (1994). Moral classroom, moral children: Creating a constructivist atmosphere in early education. NY: Teachers College Press.
- Dinkmeyer, D., McKay, G., & Dinkmeyer, D. (1980). Systematic Training for Effective Teaching: Teacher's Handbook. American Guidance Services, Inc.
- Dunn, J. (1987). The beginnings of moral understanding: Development in the second year. In J. Kagan & S. Lamb (Eds.), The Emergence of Morality in Young Children (pp. 91 - 112). Chicago, IL: The University of Chicago Press.

- Dunn, J., & Munn, P. (1987). Development of justification in disputes with mother and sibling. Developmental Psychology, 23(6), 791 - 798.
- Dunn, J., & Slomkowski, C. (1992). Conflict and the development of social understanding. In C. Shantz & W. Hartup (Eds.), Conflict in Child and Adolescent Development (pp. 70- 91). NY: Cambridge University Press.
- Edwards, C. P. (1986). Promoting social and moral development in young children: Creative approaches for the classroom. NY: Teacher's College Press.
- Eisenberg, A. R., & Garvey, C. (1981). Children's use of verbal strategies in resolving conflicts. Discourse Processes, 4, 149 - 170.
- Fein, G., & Schwartz, S. (1986). The social coordination of pretense in preschool children. In G. Fein & M. Rivkin (Eds.), The Young Child at Play. Reviews of Research, Volume 4, (pp. 95 - 111). Washington, D. C.: NAEYC.
- Filley, A. (1975). Interpersonal conflict resolution. Oakland, NJ: Scott, Foresman & Company.
- Genishi, C., & Di Paolo, M. (1982). Learning through argument in a preschool. In L. C. Wilkinson (Ed.), Communicating in the Classroom (pp. 49 - 68). NY: Academic Press.
- Goncu, A., & Cannella, V. (1996). The role of teacher assistance in children's construction of intersubjectivity during conflict resolution. New Directions of Child Development, 73, 57 - 67.
- Hartup, W. W., Laursen, B., Stewart, M. I., & Eastenson, A. (1988). Conflict and the friendship relations of young children. Child Development, 59, 1590-1600.

Hay, D. F. (1984). Social conflict in early childhood. Annals of Child Development, 1, 1 - 44.

Hay, D. F., & Ross, H. (1982). The social nature of early conflict. Child Development, 53, 105 - 113.

Hayes, S., Palmer, F., & Zaslow, M. (1990). Who cares for America's children: Child care policy for the 1990s. Washington, D. C.: National Academy Press.

Helwig, C. (1995). Social context in social cognition: Psychological harm and civil liberties. In M. Killen & D. Hart (Eds.), Morality in Everyday Life: Developmental Perspectives (pp. 166 - 200). New York, NY: Cambridge University Press.

Holloway, S., & Reichhart-Erickson, M. (1988). The relationship of day care quality to children's freeplay behavior and social problem-solving skills. Early Childhood Research Quarterly, 3, 39 - 53.

Howes, C., Whitebrook, M., & Phillips, D. (1992). Teachers characteristics and teaching in child care: Findings from the National Child Care Staffing study. Child and Youth Care Forum, 21 (6), 399-414.

Kamii, C., & DeVries, R. (1993). Physical knowledge in preschool education. New York, NY: Teachers College Press.

Kemple, K., David, G., & Hysmith, C. (1996). Teachers' interventions in young children's peer interactions. Paper presented at the Annual meeting of the American Educational Research Association, New York, NY.

- Killen, M., Breton, S., Ferguson, H., & Handler, K. (1994). Preschoolers' evaluations of teacher methods of intervention in social transgressions. Merrill-Palmer Quarterly, 40(3), 399 - 415.
- Killen, M., & Naigles, L. (1995). Preschool children pay attention to their addressees: Effects of gender composition on peer disputes. Discourse Processes, 19, 329 - 345.
- Killen, M., & Nucci, L. (1995). Morality, autonomy, and social conflict. In M. Killen & D. Hart (Eds.), Morality in Everyday Life: Developmental Perspectives (pp. 52 - 86). New York, NY: Cambridge University Press.
- Killen, M., & Sueyoshi, L. (1995). Conflict resolution in Japanese social interactions. Early Education and Development, 6 (4), 317 - 334.
- Killen, M., & Turiel, E. (1991). Conflict resolution in preschool social interactions. Early Education and Development, 2, 240 - 255.
- Kostelnik, M., Stein, L., & Whiren, A. (1988). Children's self-esteem: The verbal environment. Childhood Education, Fall 1988, 29 - 32.
- Kostelnik, M., Stein, L., Whiren, A., & Soderman, A. (1993). Guiding Children's Social Development. Cincinnati, OH: South-Western.
- Kreidler, W. (1984). Creative Conflict Resolution. Scott, Foresman & Company.
- Laursen, B., & Hartup, W. W. (1989). The dynamics of preschool children's conflicts. Merrill-Palmer Quarterly, 35 (3), 281 - 297.
- Lewis, C. (1984). Cooperation and control in Japanese nursery schools. Comparative Education Review, 28 (1), 69 - 84.

- McGinnis, E., & Goldstein, A. (1990). Skillstreaming in early childhood: Teaching prosocial skills to the preschool and kindergarten child. Champaign, IL: Research Press.
- Menard, S. (1995). Applied Logistic Regression Analysis. Thousand Oaks, CA: SAGE Publications, Inc.
- Mize, J., & Ladd, G. W. (1990). Toward the development of successful social skills training for preschool children. In S. R. Asher & J. D. Cole (Eds.), Peer Rejection in Childhood (pp. 338 – 361). NY: Cambridge University Press.
- Murphy, K. L. (1997, April). Child care quality: NAEYC accreditation, the Infant/Toddler Environment Rating Scale, and caregiver interaction. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Nucci, L., & Turiel, E. (1978). Social interactions and the development of social concepts in preschool children. Child Development, 49, 400 - 407.
- Parten, M. B. (1932). Social participation among preschool children. Journal of Abnormal Psychology, 27, 243 - 269.
- Pearson, C. (1974). Resolving Classroom Conflict. CA: Education Today Company, Inc.
- Perry, D., Perry, L., & Kennedy, E. (1992). Conflict and the development of antisocial behavior. In C. U. Shantz & W. W. Hartup (Eds.), Conflict in child & adolescent development (pp. 301 – 329). Cambridge, MA: Cambridge University Press.
- Phinney, F. (1986). The structures of 5 year-olds' verbal quarrels with peers and siblings. Journal of Genetic Psychology, 147, 47 - 60.

- Piaget, J. (1932). The moral judgment of the child. London: Routledge & Kegan Paul.
- Pflaum, S. (1986). The Development of Language and Literacy in Young Children. Columbus, OH: Merrill Publishing Company.
- Polland, B. (1990). Guideposts for Growing Up. Chicago, IL: Standard Educational Corporation.
- Putallaz, M., & Sheppard, B. H. (1992). Conflict management and social competence. In C. Shantz & W. Hartup (Eds.), Conflict in child and adolescent development (pp. 330 – 355). Cambridge, MA: Cambridge University Press.
- Ramsey, P. (1986). Possession disputes in preschool classrooms. Child Study Journal, 6, 173-181.
- Ross, H., & Conant, C. (1992). The social structure of early conflict: Interaction, relationships, and alliances. In C. U. Shantz & W. W. Hartup (Eds.), Conflict in Child and Adolescent Development (pp. 153 –187). Cambridge, MA: Cambridge University Press.
- Ross, H., Tesla, C., Kenyon, B., & Lollis, S. P. (1990). Maternal intervention in toddler peer conflicts: The socialization of principles of justice. Developmental Psychology, 26, 994 - 1003.
- Rubin, K.H., & Rose-Krasnor, L. (1992). Interpersonal problem-solving and social competence in children. In V.B. Van Hasselt & Hersen (Eds.), Handbook of social development: A lifespan perspective (pp. 283 - 323). New York, NY: Plenum Press.

Russon, A. E., Waite, B. E., & Rochester, M. J. (1990). Direct caregiver intervention in infant peer social encounters. American Journal of Orthopsychiatry, 60 (3), 428 - 439.

Sackin, S., & Thelen, E. (1984). An ethological study of peaceful associative outcomes to conflict in preschool children. Child Development, 55, 1098 - 1102.

Selman, R. (1980). The Growth of Interpersonal Understanding. N.Y.: Academic Press.

Shantz, C. U. & Shantz, D. W. (1985). Conflict between children: Social-cognitive and sociometric correlates. In M. W. Berkowitz (Ed.), Peer conflict and psychological growth: New directions for child development (pp. 3 - 21). San Francisco, CA: Jossey-Bass.

Shantz, C. U. (1987a). Conflicts between children. Child Development, 58, 283 - 305.

Shantz, C. U. (1987b, April). The promises and perils of social conflict. Paper presented at the meeting of the Society for Research in Child Development, Baltimore, Maryland.

Siegal, A., & Kohn, L. G. (1959). Permissiveness, Permission, and Aggression: The effect of adult presence or absence on aggression in children's play. Child Development, 30, 131 - 141.

Slaby, G., Roedell, W., Arezzo, D., & Hendrix, K. (1995). Early violence prevention: Tools for teachers of young children. Washington, D.C.: National Association for the Education of Young Children.

Smilansky, S., & Shefatya, L. (1990). Facilitating play: A medium for promoting cognitive, socio-emotional and academic development in young children.

Gaithersburg, MD: Psychosocial and Educational Publications.

Spivak, G., & Shure, M. (1974). Social adjustment of young children.

Washington: Jossey-Bass Publishers.

Turiel, E. (1983). The development of social knowledge: Morality and convention. Cambridge, MA: Cambridge University Press.

Tudge, J., & Rogoff, B. (1989). Peer influences on cognitive development: Piagetian and Vygotskian Perspectives. In M. H. Bornstein & J. S. Bruner (Eds.), Interaction in Human Development (pp. 17-40). NJ: Lawrence Erlbaum Associates.

Vespo, J. E., & Caplan, M. (1993). Preschoolers' differential conflict behavior with friends and with acquaintances. Early Education and Development, 4 (1), 45 - 53.

Waite-Stupiansky, S. (1997). Building understanding together: A constructivist approach to early childhood education. Albany, NY: Delmar Publishers.

Wolfgang, C., & Wolfgang, M. (1995). The three faces of discipline for early childhood. MA: Allyn and Bacon.

Zimmer, J. A. (1993). We can work it out: Problem solving through mediation. CA: Social Studies School Service.