

# Child to Child Interaction: An Observational Study

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**Abstract:** *Child interactions with their peers, facilitates learning important social and language skills which result in greater social participation. This study tried to capture mixed age group children's interactions to understand children's interactions in the right perspective. The play situations were video graphed with preschool age children and primary school age children interacting with infants and toddlers. The study was taking up in both urban and rural settings. A high precision technique of video capturing children's interactions and coding behaviours using Observer Behaviour Software XT 7.0 was used for this research. The behaviours that were exhibited by children while interacting with other children were analyzed using frequencies and duration of interactions. The total sample used for this study is 88 (39 Urban and 49 Rural Video Clipping) 10 minute video clippings. Results indicated that a) Infants, toddlers and preschoolers interactions in play situation indicated that toddlers were most active. In all more positive interactions happened than negative and more rural infants interactions happened than urban infants b) primary school children interacted lesser with younger children, and among them urban children exhibited the least. Rural primary school children indicated better interactions with infants and toddlers. Here too rural younger children showed higher frequencies c) gender differences showed that with preschool children, girls among infants showed higher frequencies of interaction and boys among toddlers showed higher frequencies d) boys among the primary school age group indicated more frequencies of interactions when compared to girls with both infants and toddlers e) more frequently, verbal positive, physical positive and ambivalent behaviours were expressed by children in interactions. Some suggestions for families and teachers are discussed in concluding section.*

**Keywords:** Child – to- Child, verbal, physical, gestural, ambivalent interactions

## 1. Introduction

This paper is part of a larger study on child to child interaction. It explores overall interaction patterns of primary school children and preschool children with infants and toddlers in a mixed group play situation in both rural and urban settings.

Child interactions with their peers, facilitates learning important social and language skills which result in greater social participation e.g. turn taking and increased self-reliance. In play interaction with other children, children learn to resolve disputes. Children interacting with one another also helps them to learn by imitating one another's actions and words. Very young children too benefit immensely through interaction with other children. Babies love other babies and are often very tolerant of the snatching and grabbing of toys. Because babies are 'captured by the moment' they are more interested in seeing the other child with their snatched toy than fretting over the fact it has been stolen. This begins to change in the second year, but children who often play alongside others remain relatively tolerant. There is no substitute for the experience children gain from interacting with peers.

Children especially benefit when they can develop long-lasting relationships. Young children - even toddlers - who are able to participate in stable peer groups become more competent over time and have fewer difficulties than children whose peer group membership shifts (Howes, 1987). In short, children develop better, more sophisticated social strategies when they are able to maintain stable relationships with other children they like over long periods. Children's social interactions within a mixed age group creates a sense of togetherness within a community;

this was the central feature of children's social experiences in this mixed-age setting (Tara Jan Fagan, 2009).

Younger children tended to exhibit more negative interactions in same-age settings, and older children exhibited more negative interactions in mixed-age settings. Younger children in mixed-age settings played with same-age and older playmates at expected rates; older children in mixed-age settings, however, were more likely to choose other older children as playmates. This is in contrary to previous research, may be due to the familiarity of children with peers within the group and common day-care experiences (Bailey et.al, 2002).

Exploring what happens when infants are given the opportunity to interact with older children, such as toddlers and 2-year-olds supported the idea that children, with support, can be quite capable in interacting with each other (McGaha, Cummings, Lippard and Dallas, 2011). Interactions of the form "social behaviour/social response" were the most common exchange even at 6 months, although less social sequences were also common. Within the exchanges, vocalizations, smiles, and touches were the most frequent social acts. Toys were found to have a significant effect. More and longer interactions occurred in the absence of toys, and every social act with the exception of object related social acts was more frequent in the toys-absent condition.

The multi-age child care models should be viewed as an acceptable option of group child care for families and their children. Evangelou and Demetra (1989), since the multi-age grouping affords children more opportunities to engage in pro-social behaviours

## 2. Method

This study tried to capture mixed age group children's interactions, splitting these interactions as four main components like verbal, physical, gestures and ambivalent behaviors to understand children's interactions in the right perspective. A high precision technique of video capturing children's interactions and coding behaviours using Observer Behaviour Software XT 7.0 was used for this research. The behaviours that were exhibited by children while interacting with other children were analyzed using frequencies and duration of interactions. The frequencies and durations of every age group with respect to the class of behaviours that were elicited were tabulated

### 2.1 Sample

The study was conducted in various districts within the state of Andhra Pradesh, India, using purposive sampling method. The rural data was procured from Anganwadis (Rural Pre schools run by Government), village government primary schools and NGO maintained schools within Hyderabad and also other districts of Andhra Pradesh and the urban data was procured from different schools of Hyderabad city where children from diverse backgrounds, cultures and various socio-economic groups can be observed and studied so that it constitutes a large sample widening the scope of interactions and all related strategies children use in different settings. Age group of children was from early infancy to eight years.

### 2.2 Selection of Sample Video Clippings

The total sample used for this study is 88 (39 Urban and 49 Rural Video Clipping) video clippings. The duration of each video clipping is 10 minutes. All the video clippings consisted of the data of physical, cognitive and socio-emotional interactions among children. The age groups of children among whom the interactions happened were infants, toddlers, preschool children and primary school children covering ages from 6 months to 8 years.

### 2.3 NOLDUS Observer Behaviour Software XT.7.0

The Observer is an important tool for the study of behavioural processes to record a level of detail that cannot obtain without an automated system. The Observer can be used to record activities, postures, movements, positions, social interactions or any other aspect of the behaviour of humans and animals. The video clippings selected for the

study are loaded into the processor, and stored as media files. Once the coding scheme is ready, the Observer file is used to observe and code the behaviours of the interactions of children by simultaneously viewing the media file of video clipping. After coding the behaviours, a data profile is created using the software, where the coded behaviours are selectively filtered and fed into processor for getting a result sheet with frequencies, durations, mean durations of the behaviours and modifiers for each of the behaviours. This is later used to perform further statistical analysis and graphical representation to answer specific research questions.

The coding scheme for the current study was developed by the researcher. The coding scheme was developed in four major areas of behaviour which are naturally anticipated when young children interact with infants and toddlers.

### 2.4 Coding schemes developed for the study are as follows:

**2.4.1 Verbal Positive behaviours-** talking to each other, Trying to please, Entertaining, Initiating, Encouraging, Explaining, Showing, Complimenting and Calling

**2.4.2 Verbal Negative behaviours-** Teasing, interrupting, commanding, threatening, screaming, claiming ownership, complaining, and rejecting

**2.4.3 Physical Positive behaviours-** Playing, Hugging, Kissing, Holding, Cuddling, Lifting, Feeding, Helping, Friendly proximity, Doing together, Offering and Accepting

**2.4.4 Physical negative behaviours -** Temper tantrums, Moving away, Pushing, Pulling, Hitting, Throwing things, Snatching, Disturbing and Pointing fingers

**2.4.5 Gestures – Positive –** Smiling, Eye contact, Excited/ happy and Welcoming

**2.4.5 Gestures – Negative –** Ignoring, Sad, Angry and Crying

**2.4.6 Ambivalent behaviours -** Trying to follow, Trying to copy, Quiet, Staring/ gazing, Warning look, Shocked, Trying to negotiate and Confused/ bewildered

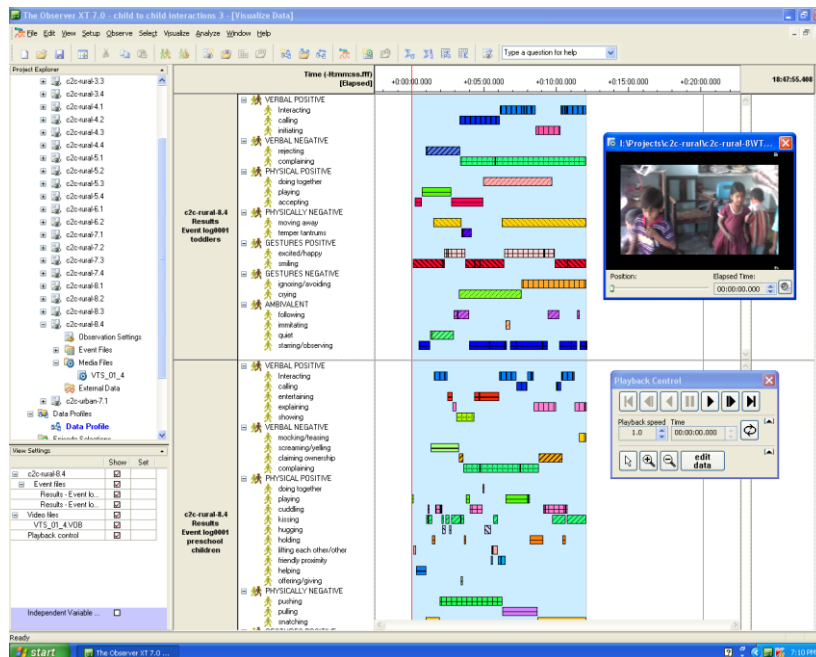


Figure: Data Visualization window

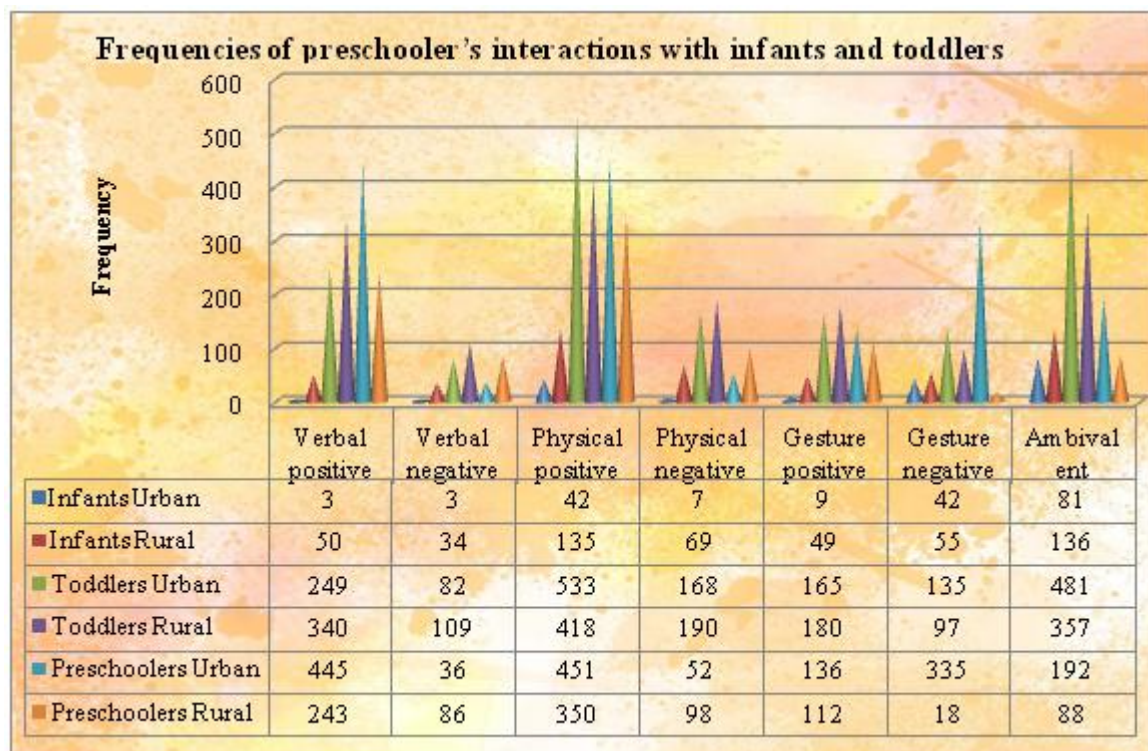
### 3. Results

This paper presents the general frequency distribution of interactive behaviours among mixed age group children in both rural and urban settings. The frequencies indicate the number of times each of the behaviours was expressed by children. This includes preschool childrens' interactions with infants and toddlers and primary child childrens' interactions with infants and toddlers in terms of verbal

positive, verbal negative, physical positive, physical negative, gestures positive, gestures negative and ambivalent behaviours.

#### 3.1 Urban – Rural Differences

##### 3.1.1 Frequencies of preschooler's interactions with infants and toddlers



The graph indicates the preschooler's interactions with infants and toddlers in both urban and rural settings. The whole picture of interactions manifests that toddlers are the ones who interacted more with infants and preschoolers.

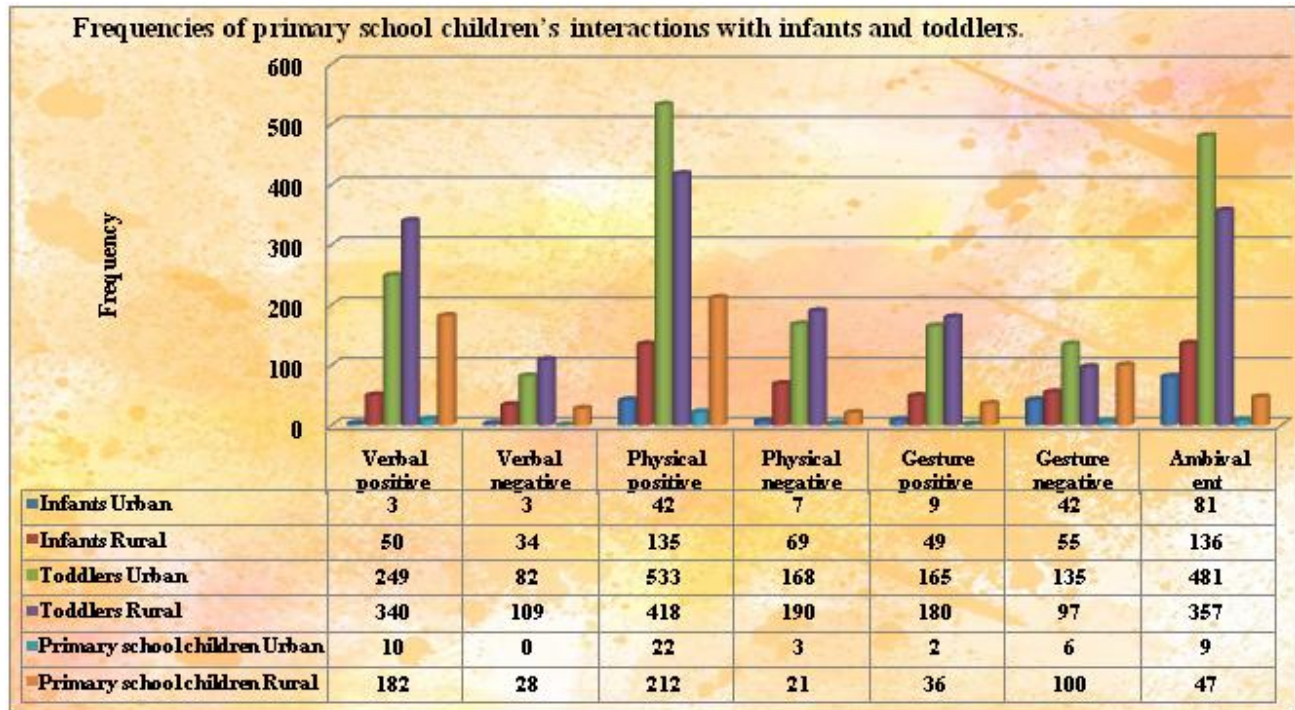
Among infants, rural infants have interacted with higher frequency. Toddlers of both the environments exhibited a good frequency of eliciting all seven kinds of behaviours. Considering only positive and ambivalent behaviours urban



toddlers have interacted more with infants and preschoolers which means their interactions are positive verbally, physically, gestures wise. Urban preschoolers actively interacted with infants and toddlers which is apparent from their frequencies. This makes it evident that toddlers being the middle age children who are energetic explorers sought an advantage in interacting with both infants and preschoolers. Preschoolers being in the stage of taking

initiative have engaged in interactions with both the young age peers trying hard to be successful at these interactions. Over all verbal positive and physical positive interaction appeared more frequently among the children.

### 3.1.2 Frequencies of primary school children's interactions



Primary school children's interaction with infants and toddlers is clear from the graph II. As in the previous case here also the rural infants have high frequency of interactions with toddlers and primary school children. Primary school children from urban environment seem to have hardly interacted but rural primary school children are far better in interacting with infants and toddlers. Urban primary school children might feel that the younger children are so small to be with, have fewer skills to indulge in play, and need constant attention, and therefore could not be good play companions. But this is to be questioned as the rural primary school children differed with them and interacted much better with infants and toddlers. It is also true that rural children do take on responsibilities of caregiving and help parents in engaging infants and toddlers more often. This would have given them skills in interacting much better with the younger ones.

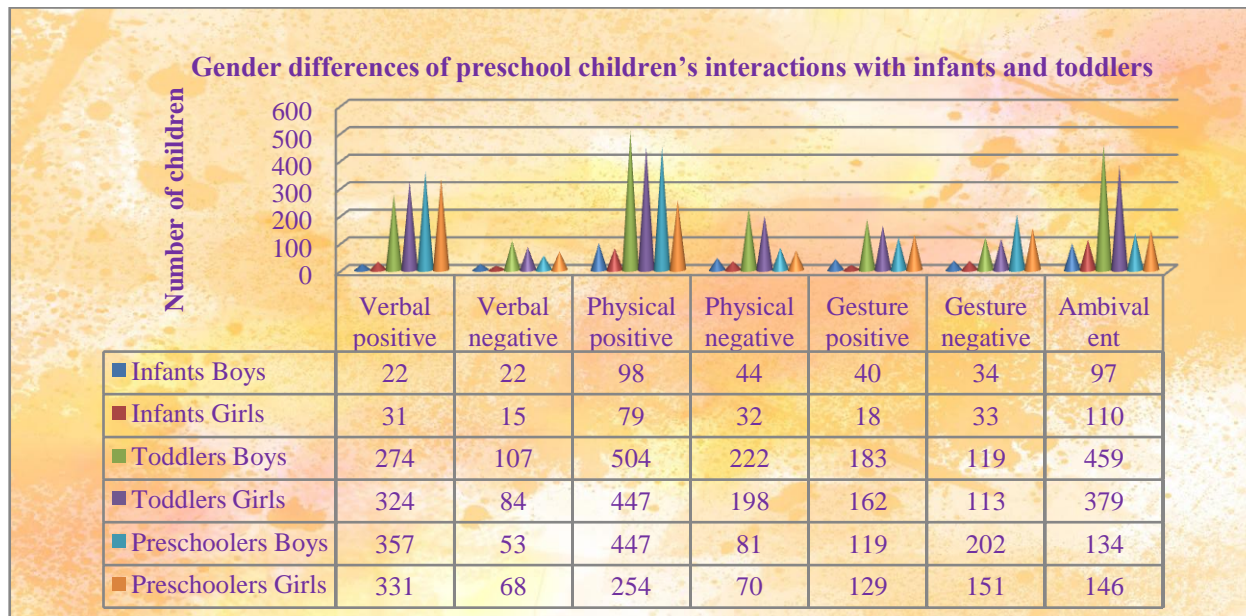
The toddlers again remained the active involvers in interacting with infants and primary school children. Urban

primary school children were at loss when it came to interacting with younger children; indicating the need for better socialization for urban children to deal with mixed age group companions. Here too overall, verbal positive, physical positive and ambivalent behaviours were more often expressed.

From the above two consolidated graphs it is evident that among older children the preschoolers especially from the urban environments are most interactive with infants and toddlers. Among toddlers and infants the toddlers are active and energetic in interacting while the infants interaction capacities being still very much in the process of development, did not help them as much in carrying out active interactions as the toddlers.

### 3.2 Gender Differences

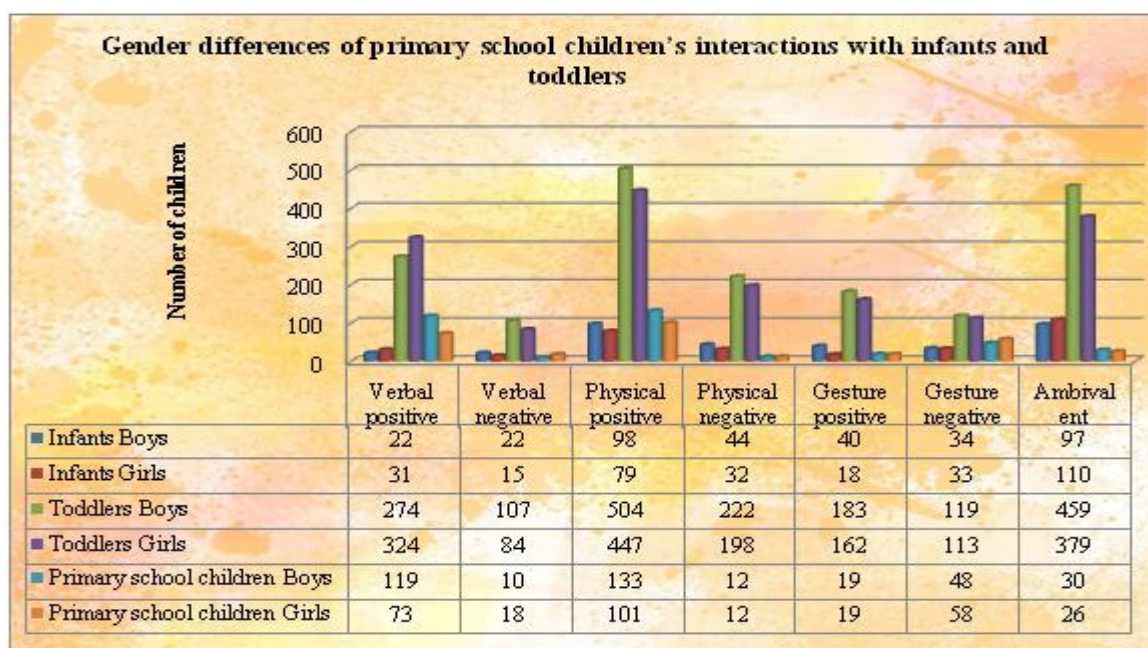
#### 3.2.1 Gender differences of preschool children's interactions with infants and toddlers



The graph III on gender differences of preschooler's interactions with infants and toddlers explains that on the whole boys have interacted more than girls. Among infants, girls interacted with high frequency, among toddlers boys are high and among pre-school children again boys are high. A keen notice of the graph shows that all the positive behaviours are with high bars while negative behaviours have low bars. The high bars indicating boy's behaviours are an important aspect to be observed. However, the gender differences are not as huge as urban and rural differences. Toddlers, both boys and girls showed more ambivalent behaviours, indicating the natural indecisiveness and curiosity of this age group of children. Gender differences also showed that verbal, physical positive behaviours dominated. This was followed by ambivalent behaviours.

### 3.2.2 Gender differences of primary school children's interactions with infants and toddlers

The primary school children interactions with infants and toddlers have elicited some gender differences which is obvious from the graph IV. Boys are again high even in these pairs of interactions. The difference is not huge and it must be noted that the common expectation that girls will be more concerned about younger children than boys could not be noticed in this study. More frequently boys were involved in interactions with younger children than girls. The good sign is that positive behaviours of children are high for both boys and girls. The trend continued with verbal and physical positive behaviours and ambivalent behaviours being more frequently expressed.



## 4. Conclusion: facilitating appropriate child – to- child interaction

Child to Child interaction is invaluable in the sense that when playing with others, children learn appropriate social behaviors, such as sharing, cooperating, and respecting the property of others. In addition, while interacting with their



peers, young children learn communication, cognitive, and motor skills. Facilitating Child – to – Child Interaction is therefore critical. Families and schools must strive to do this consciously.

#### 4.1 Families

**Families could create opportunities for children to interact with each other** - This is not happening for at least two reasons a) Family Sizes are shrinking to one or two children b) Visiting other families with children too is rare due to work related pressures in the middle class urban families. This situation is a little better in the rural families due to close proximity of households and closer and more regular social interactions among families.

**Families could encourage elder child to take care of the younger ones** – in the urban families it is less often the case where an older child is given some simple responsibilities towards the younger sibling. They must be taught to realize this responsibility and opportunities must be provided for child – to – child interaction. They must provide children with common play material, so that they learn to share and play co-operatively, asking older child to feed the younger one with spoon, rock the crib, sing to the younger one, show picture book and talk, hold hands while walking, train in the use of play material and so on.

**Parents could teach children to accept each other despite the differences they have** - when disagreements occur parents must solve the problem by explaining to older child to make the adjustments, instruct the younger one to follow the older child.

**Whenever possible, opportunities could be created to take children to neighbourhood play centers, parks, homes of friends, relatives and children should be allowed to play with neighbours' children or mutual friends** – this is very important in the current scenario since families are small with only one or two children with many times a rather large age gap between the two children

**The elder child could be instructed about the safety of younger child** - older children must be trained to take care of the safety of the younger child, check the environment, the toys, the food being fed and the general comfort in the place for the younger one.

**The younger child could be taught to follow the elder sibling** – when older children are perceived to be good companions, younger ones generally obey them, enjoy their company and trust them. However they must also be taught to seek the older child in need and not only the parents.

#### 4.2 Teachers

Classrooms too are becoming as closeted as families. This will only hamper children's opportunities to grow in healthy mixed group environments. Teachers and schools must have policies to see that children have opportunities to be in mixed age groups.

**During play time children of all age groups could be combined to play some games with rules and sometimes free play** - Most opportunities for social interactions among young children occur during play. This opportunity to play with others is critical if a child is to develop appropriate social skills. Therefore, teachers must create mixed age play settings at least a few times a week so that children learn to enjoy the company of other children and not only their age mates.

**Mixed age classes could be taken up for teaching common subjects** – where possible, some opportunities could be created for mixed class rooms, with subjects such as art, music, dance, outdoor games, field trips and so on. This will help younger ones to enjoy the company of older children and for older children it will be a learning experience to take care and interact with younger ones along with assisting the teachers in handling the younger ones.

**Older children could be given activities to do with younger children like teaching, helping** – it is also possible to create classroom environments for mixed group child interactions. Older children will learn basic teaching skills as well as a sense of responsibility towards the younger ones. Eg. Montessori teaching method (which does use mixed age groups in each classroom) and thematic approach combined with mixed age group education will yield good results on children's interactions.

**Other activities for mixed age group interactions could be explored** - During the lunch time or snack time also mixed age groups would be more benefitting to both the older children, to train themselves in the care of younger ones, and for younger children to learn to accommodate to others and not only adult caregivers.

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