The purpose of this study was to summarize an examination of the social interactions of a sample of 370 preschool children and to demonstrate from the summary that social settings within the preschool environment differentially affect both the quality and quantity of social interaction. The Social Interaction Observation Procedure was used to obtain direct observational data on children's social interactions in the classroom during indoor, free play periods. All children were observed for a minimum of 50 minutes, over a period of at least 15 days. Recorded were social initiations (verbal and/or nonverbal behaviors directed toward another person or persons) and social interactions (initiations followed by response of another person or persons toward whom the initiation was directed). The activities in which the children were engaged were recorded as one of 11 mutually exclusive and exhaustive classes--Role Play, Blocks, Climbing/Running/Tumbling, or Transportation (associated with social behaviors involving peers); Creative Activity, Science and Routines, Books and Records, Table Games and Other (associated with higher rates of social behavior with adults); and Sand or Water Play and Non-Participation. (Author/ED)
Social Interactions of Preschool Children as Correlates of Play Activities

Kay A. Beehler
University of Kansas and Minnesota Learning Center

Russell M. Tyler
Barbara C. Etzel
Judith M. LeBlanc
University of Kansas

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Preschool environments are designed to stimulate and enhance the social and intellectual development of young children (Report to the President: White House Conference on Children, 1970). Although not everyone agrees on what kinds of intellectual skills are appropriate to develop, or just how one should go about that task, many seem to agree that children can be, and should be, taught to interact positively with peers and adults.

In the preschool literature, there are a number of examples of how social interactions have been prompted, primed, and reinforced (e.g., Goetz, Thomson, and Etzel, 1975). That literature contains far fewer examples, however, of how other aspects of the environment can affect social behavior and social development.

One example of attention to the ways in which equipment and activities, as well as social consequences, affect social development is reported by Buell, Stoddard, Harris, and Baer (1968). Although their major focus was on social reinforcement to ameliorate deficits in the motor and social repertoire, they report on an individual case study in which social development accompanied reinforcement of outdoor play involving various pieces of play equipment.

Snure (1963) examined patterns of social behavior in five indoor play areas—art, books, dolls, games, and blocks. She found that the block area was the most popular, with art second in popularity. In addition, she found that the block area elicited a high proportion of complex social interaction.
In a more recent study, Quilitch and Risley (1973) document their findings relative to the effects of play materials on social play. Using toys identified as designed for social or isolate play, they report clear differences between social and isolate play as a function of the class of toys provided. The purpose of this report is to summarize an examination of the social interactions of a sample of preschool children. This summary will attempt to demonstrate that social settings within the preschool environment differentially affect both the quality and quantity of social interaction.

**Method**

**Subjects**

The subjects were 370 preschool children. Three hundred and twelve were enrolled in Head Start programs, 39 in a university laboratory preschool, and 19 in a parent cooperative preschool.

**Observation Procedure**

The Social Interaction Observation procedure developed and reported by LeBlanc, Etzel, and Tyler (1967, 1969) and reported by Reuter and Yunik (1973) was used to obtain direct observational data on children's social interactions in the classroom during indoor, free-play periods. All children were observed for a minimum of 90 minutes, over a period of at least 15 days. Table 1 summarizes the observation schedule.

Recorded were social initiations—verbal and/or nonverbal behaviors directed toward another person or persons—and social interactions—initiations followed by a response of another person or persons toward whom the initiation was directed. In each instance, the person making the initiation, the person toward whom it was directed, the person responding, and the activity in which the behavior occurred were recorded. In addition, the verbal or nonverbal nature
## OBSERVATION

<table>
<thead>
<tr>
<th>No. of Ss</th>
<th>No. of Min of Obs per Child</th>
<th>Total Min/Child</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>45 Pre 45 Mid 45 Post</td>
<td>135</td>
</tr>
<tr>
<td>111</td>
<td>45 Pre 45 Post</td>
<td>90</td>
</tr>
<tr>
<td>205</td>
<td>90 minutes over school year</td>
<td>90</td>
</tr>
</tbody>
</table>
of each social behavior was recorded, and the durations of social behaviors were obtained directly from the observational records.

All observers were trained as described in the Social Interaction Observation Training and Data Collection Manual (LeBlanc, Etzel, and Tyler, 1967), and to the reliability criteria specified, prior to classroom data collection. Reliability was monitored throughout the data collection.

Results

The activities in which the children were engaged were recorded as one of 11 mutually exclusive and exhaustive classes. Rate measures of initiations and interactions were produced using a computer program designed for that purpose.

Figure 1 presents the overall rates of behavior for each activity class. The horizontal, dashed line indicates the average rate across all activity classes. Higher rates of social behavior occurred when children were engaged in Role Play, Creative Activity, Climbing/Running/Tumbling, Table Games, or Transportation Toys. For each of these activity classes, the average rate in the activity is higher than the average rate across all activities. Lower rates of social behavior occurred when the activity class was Sand or Water Play, Books and Records, Other, and Science and Routines. The rate for Blocks is lower than the overall average rate, but it does approximate the overall average.

Social behaviors also were examined in terms of the relative rates of behaviors involving adults and those involving other children. In Figure 2, the top bar graph presents social behaviors involving adults, as a percentage of the rate for each activity. Creative Activity, Science and Routines, Books and Records, Table Games, and Other are associated with higher rates of social behavior with adults.
Figure 1

Activity

Rate per Minute

Responses

Role
Creative
Blocks
Table
Climbing
Transport
Other
Nut part
Sand
Books
Science

Figure 1
The lower bar graph presents social behaviors involving peers. Higher rates of social behaviors with peers occur when children are engaged in Transportation Toys, Role Play, Climbing/Running/Tumbling, and Blocks.

Also examined were the relative rates of Verbal, Nonverbal, and simultaneous Verbal and Nonverbal behaviors. On the basis of the overall rate of social behavior, the Verbal behaviors were 80% of the overall rate, Nonverbal 11%, and simultaneous Verbal and Nonverbal 9%.

In Figure 3, it is shown that 56% of the initiations resulted in completed social interactions. Seventy-one percent of the initiations involving adults were responded to, 61% of those involving peers were completed, and 2% of those involving a group of 2 or more persons.

Fifty-two percent of the Verbal initiations were completed. Seventy-one percent of the Nonverbal were completed, and 73% of the simultaneous Verbal and Nonverbal.

In terms of duration, 68% of the social behaviors were of 10 sec duration. Twenty-two percent were of 20-30 sec durations; 6% were of 40-50 sec; and 4% were 60 sec or longer.

Discussion

These data indicate that different rates of social behavior are associated with particular classes of activities within the preschool classroom. If the objective is to set the occasion for higher rates of social behavior, Role Play, Creative Activity, Table Games, Climbing/Running/Tumbling, or Transportation Toys are likely to be helpful. However, Role Play is more likely to be associated with peer interactions, whereas Table Games are more likely to be associated with adult interactions. By carefully selecting the activity classes in which a child is encouraged to engage, it appears possible to influence either
Interaction Types

Figure 3

% Completed

Initiations Adult Peer Group Nonverbal Verbal & V

Interaction
the quantity or the quality of social behaviors, or both. Given that the environmental context in which social interactions occur in itself is a determining variable, it may be that those concerned with changing the frequency or quality of social interactions need to be mindful of behavioral contexts. Without specification of the context in which behaviors occur, it may be difficult to determine exactly what is occurring and changing when an individual successfully completes a program designed to alter his or her social repertoire. Has the child learned to emit more or less of certain kinds of social behavior; has the child learned to engage in different classes of activity which set the occasion for different patterns of behavior; or have both occurred?

In most instances, it seems likely that the objective is to change rate and quality regardless of the context; the objective is to teach the child that social interaction is fun and in other ways functional, and that there are times for interacting with peers, and times for interacting with adults. In this event, it would be essential to account for effects that are a product of the setting more than a result of behavioral consequences. In any event, the context does appear to make a real difference.
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