This study was designed to evaluate the effectiveness of peers in reducing the isolation of preschool children who exhibited very little or no interaction with peers. Selection of subjects was made on the basis of quantity of verbal behavior and amount and quality of classroom play. In a 15-minute dyad play situation which maximized the opportunity for dramatic play, children who dispensed social rewards at a relatively high rate were paired with those children who received and dispensed rewards at a low rate. Observers recorded 9-minute samples of the occurrence or non-occurrence of cooperative, parallel or solitary play, and verbal interactions initiated by or directed toward the subjects. The results are charted for four dyads. Ongoing work with isolated children has indicated that as a child becomes the recipient of positive reinforcement from his peers, the child's classroom behavior changes, and increases in both verbal interaction with others and cooperative play occur. Findings suggest that teachers may restructure classroom groups to counteract environmental factors that maintain the behavior of the isolate child. (Author/AJ)
USE OF THE PEER GROUP IN THE SOCIALIZATION OF THE ISOLATE CHILD

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A few studies, such as those of Hartup (1964), Hartup and Coates (1967) and Charlesworth and Hartup (1967), have dealt with peers as agents of reinforcers, but little attempt has been made to utilize the peer group reinforcement patterns for achieving the educational goals of the classroom. The present study was designed to evaluate the effectiveness of peers in reducing the isolation of non-interacting pre-school children.

Peer interaction has been shown to increase rapidly when teacher attention is given only when the child plays with peers (Allen, Hart, Buell, Harris and Wolf, 1964.) Harris, Wolf and Baer (1967) suggest that the immediate shifts in the children's play behavior may occur because the child had already developed skills readily adapted to play with peers at school. While differential attention from adults may be effective for producing changes when developed skills already exist, other techniques, directed more toward developing skills, may be more desirable in other circumstances, both from a standpoint of effectiveness and, perhaps, economy.

The basic experimental design involves the manipulation of subgroups in play situations in order to maximize the degree to which the child is naturally the recipient of positive social reinforcement from other children.

Normative data from the work of Charlesworth and Hartup (1967) is particularly relevant to the work described here. These investigators,
using four pre-school classes, obtained information on the amounts and kind of positive social reinforcement dispensed by pre-school age children to each other in the nursery school.

They found that the correlation between the total number of reinforcements given and the total number received was large and highly significant. The data for this result was based on different events, i.e., measures of giving and receiving were independent. Like the findings of Patterson, Littman, and Bricker (1967) with respect to aggression, these results suggest that giving of reinforcements is an operant which becomes governed by generalized social reinforcers of other children at very early ages. The isolate child, by lacking the skills to reward his or her peers, is in turn an infrequent recipient of positive social interchange.

Also, each separate category of giving reinforcement was significantly related to each category of receiving them. For example, if a child spontaneously gave numerous tangible physical objects, such as toys or food to others, the child also received many such tokens in return; if the child gave positive attention or approval to others by offering praise, smiling, or laughing, the child tended to receive similar social rewards in return.

In addition, the most reinforcing children in the peer group tended to scatter their reinforcements widely, an important consideration for establishing social interaction patterns in isolate children who normally receive little social reinforcement from their peers.

From the work of Charlesworth and Hartup (1967) and Marshall (1961), as well as others, it is clear that opportunities for dramatic play activities (housekeeping, trucks, puppets) are particularly conducive to the child's acquisition of positive social skills with peers. In the present work, relatively brief daily play sessions, fifteen minutes in
duration, with a positively reinforcing peer, under conditions which maximize the opportunity for dramatic play, tends to rapidly change the rate of the child's social interaction in the classroom.

Subjects are individuals who either exhibit no interaction with peers, or an extremely low rate of interaction. Selection is made on the basis of quantity of verbal behavior and amount and quality of play in the classroom.

Children who dispense social rewards at a relatively high rate are identified and paired with those children who receive and dispense rewards at a low rate (isolates) in a dyad play situation which maximizes the opportunity for dramatic play. The dyad play session is held in a separate room from the classroom.

Nine minute samples of the subject's behavior are scored; observers record in ten-second intervals the occurrence or non-occurrence of cooperative, parallel or solitary play, and verbal interactions initiated by or directed at S. The observer reliability estimates range from 72% to 94%.

Slide 1 illustrates the effect of a fifteen minute dyad play session with a positively reinforcing peer on the rate of verbal interaction in the classroom between S1, a five year old boy in a day-care center, and his peers.

After the start of the play sessions, the first changes that occurred for this child were in his verbal interactions in the classroom in situations that were relatively structured. Note that the initial rate of verbal interaction of S1 to others is greater than the rate of others to S1.

To evaluate the effect of the dyad play session, the play period was discontinued after six sessions and the regular classroom routine was resumed. Verbal interaction of the subject was depressed, but not to the original base line. After resuming the play session with peers, the verbal interactions of both S and O increased.
Changes in verbal behavior in a structured situation were closely followed by changes in the quality and amount of play in the free-play situation.

Slide 2 shows changes in the quantity of cooperative play for S1 in the free-play time of the classroom period.

Slide 2

While change in amount of cooperative play did occur in the classroom during the period in which the play session was first introduced, they were not stable. However, when the dyad play session was again introduced, the quantity of cooperative play during the classroom free-play period gradually increased. When the dyad play situation was terminated, cooperative play in the classroom remained high and stable. Four months later, the amount of cooperative play in the classroom remained high.

Slide 3 shows classroom changes in cooperative play as opposed to solitary activity for a four-year-old boy in a Head Start classroom. Twenty play sessions (5 hours) were held over a month and a half period.

Slide 3

Slide 4 shows changes in cooperative play for a four-year-old girl after eight play sessions (2 hours) over a month's time period.

Slide 4

The irregular attendance patterns, and limited time before the termination of school, did not permit an evaluation of the treatment effects for the latter two subjects, but do show what might be a more typical sequence of events in an average classroom.

Ongoing work with isolated children in Head Start classrooms has indicated that as the child becomes the recipient of positive reinforcement from his peers, the child's classroom behavior changes, and increases
in both verbal interactions with others and cooperative play occur.

Presumed opportunity for play in the classroom does not necessarily mean that the child is able to utilize the learning potential of the play situation. Many teachers are able to structure effectively the social organization of the free play situation on a largely intuitive basis. It is possible for any teacher to restructure the groups in the classroom to counteract the factors in the environment that are maintaining the current behavior of the isolate child.
REFERENCES


