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**INTEGRATING HANDICAPPED AND  
NONHANDICAPPED PRESCHOOL  
CHILDREN: EFFECTS ON SOCIAL PLAY**

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WE HAVE long regarded the play of young children with fascination, but only recently have we begun to systematically explore its functions and development. This interest was sparked by both the remarkable increase in our sensitivity to the preschool years and the exciting possibility of being able to alter significantly the course of cognitive growth through early intervention programs. As a result, many investigators have come to the conclusion that involvement in sociodramatic play can have a very favorable effect on the social, emotional and intellectual development of the young child (Slobin, 1964; Singer, 1973; Smilansky, 1968).

Additional systematic explorations of this issue have focused on the kinds of conditions that facilitate various types of play and their relationship to cognitive and social development. For example, Freyberg (1973), in support of Smilansky's work (1968), successfully trained five-year-old disadvantaged children to play more imaginatively in only eight twenty-minute sessions. Initially, the experimenter modeled various imaginative play scenes and then gradually encouraged the children to engage in similar activities as the training period progressed. As she notes, "The enhanced fantasy play proved also to be associated with greater verbal communication, longer and more complex sentence usage, more sensitive responding to the cues of other children, more apparent spontaneity, more

creative use of play material, more inventiveness and originality, more labelling and increased attention span. There were also considerably more positive expressions of emotion in the trained than the untrained group" (Freyberg, 1973).

Similarly, Dansky and Silverman (1973), drawing upon Piaget's discussions (1962) regarding play and creativity, demonstrated that free play with objects produced an increase in associative fluency.

Techniques based on reinforcement principles (Bandura, 1969) have also been successful in increasing the play behavior of young children. Generally, the delivery of social reinforcement, usually in the form of adult attention and praise, is carefully programmed to follow instances of appropriate play (Allen, Hart, Buell, Harris and Wolf, 1964; Hart, Reynolds, Baer, Brawley, and Harris, 1968). These procedures for play development have worked well with children who are adjusting successfully in other respects as well as with children with severe learning and behavioral problems (Guralnick and Kravik, 1973; Whitman Mercurio, and Caponigri, 1970).

In spite of these efforts, we need to learn a great deal more about those conditions that foster the development of play behavior in young children, especially if those children are handicapped. The present article describes our efforts to increase the social play of a varied group of handicapped preschool children. It will be seen that after repeated but generally unsuccessful attempts to promote social interactions, using many of the procedures outlined above, we were able to effect marked positive changes through introducing of nonhandicapped preschool children and providing structured activities.

**Method and Results**

Seven handicapped children enrolled in a private preschool program were involved in this study. The range of handicaps was quite large, from children with little or no functional speech to children with considerable verbal

skills. In addition, many of the children manifested various behavioral problems such as hyperactivity or excessive passivity.

Initially, we tried to structure the play situation in a manner designed to increase the likelihood of play interactions and to reinforce with praise and attention any approximations to increased and more highly developed play. However, although these techniques of modifying antecedent environmental conditions (Keogh, Miller, and LeBlanc, 1973) and consequent events (Baer and Wolf, 1968) have worked for other populations, no changes were detected here. Accordingly, an agreement was reached with a preschool class of nonhandicapped children that occupied the room next door to send five of their children three times a week during the free-play period. Our purpose here was to attempt to use the nonhandicapped children to prompt our youngsters to engage in more advanced and frequent play and to have them, rather than the teachers, provide the positive consequences that attend this type of activity.

Children were rated on a time sampling basis on a social play scale ranging from autistic and isolate play to cooperative play, with a rating of six being the highest. Ratings were carried out by a teacher with the occasional introduction of an additional person to check reliability.

During baseline conditions, the seven handicapped children were permitted to play as usual. As Figure 1 indicates, the average play rating stabilized at about three (parallel play). During the next phase, referred to as "intervention," the nonhandicapped children were introduced into the situation. As indicated in the figure, social play did improve, although not very substantially, and stabilized at the level indicated on the graph. In the final phase, when the teacher directly intervened by structuring the play for the combined group of children, a noticeable increase in play occurred. It should be recalled that when the teacher structured the situation with only handicapped children only small positive changes resulted.

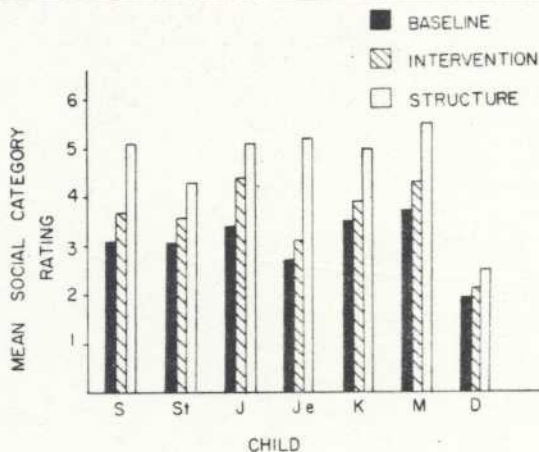


Figure 1

*The effects of the three conditions on the social behavior of each child.*

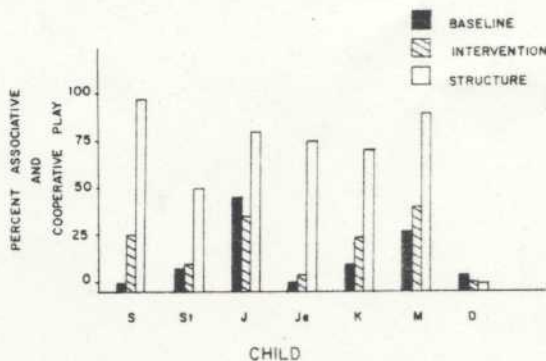


Figure 2

*The effects of the three conditions on the associative and cooperative play of each child.*

Figure 2 illustrates the same sequence of events, with the dependent variable being the percent of time spent in the two highest social categories. Viewed this way, the marked effects of structuring the play situation with both nonhandicapped and handicapped children can be seen quite clearly. Note that,

after structuring, five of seven children spent almost 75 percent or more of their time engaging in associative or cooperative play. The two children for whom these gains did not occur were the only nonverbal children in the class.

Our attempts here were designed to increase the frequency of social interactions in the direction of cooperative play. However, unexpectedly, during the intervention phase, important and dramatic changes occurred that do not appear on the graphs. Specifically, as we noted, although changes were not very substantial during this period for most children, the teachers observed that during other free-play periods throughout the day the handicapped children not only interacted with each other more, but the play itself took the same form as the play modeled by the nonhandicapped preschoolers. This play was much more sophisticated and organized than any our handicapped children had ever evidenced.

### Discussion

The results of this investigation suggest that nonhandicapped preschool children can serve as effective models for play behavior and produce a substantial and rapid increase in both the quantity and quality of play in handicapped children. We have not determined here whether these increases produced concomitant positive changes in the cognitive and social-emotional spheres, but work with disadvantaged children has suggested that such gains do tend to occur (Freyberg, 1973; Smilansky, 1968). Of course, additional work is needed, utilizing appropriate control groups or applying multiple-baseline techniques, to warrant stronger conclusions.

These results may have important implications for the current discussions regarding the integration of handicapped and nonhandicapped children in regular classes. Although the philosophical and empirical issues surrounding the concept of "mainstreaming" still need clarification (Reynolds and Davis, 1971), our findings do point to the favorable effects on the handicapped children that can result from such grouping at the preschool level. It should be noted, however, that these interactions took place in the familiar and supportive classroom environment of the handicapped children and that relatively few nonhandicapped youngsters participated at one time. We do not know whether or not these results would have been obtained had we placed a few handicapped children in a normal setting and followed

similar procedures. Nevertheless, should further systematic investigations of this effect support these findings and if the structuring of situations designed to encourage nonhandicapped preschool peers to model appropriate language and emotional behaviors also turns out to have similar effects on the handicapped children, then the merits of carefully planned integration procedures can be argued from a more objective perspective. Moreover, quite apart from the issue of mainstreaming, but perhaps of greater significance, we can at least state on empirical grounds that we have a useful instructional technique at our disposal.

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