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ABSTRACT

Disadvantaged preschool children directed in the role-enactment of imaginary stories were found to be superior to control children (who did not engage in role playing) on several measures of social and cognitive development. Fantasy play training resulted in a higher incidence of spontaneous sociodramatic play, higher scores on an interpersonal perception test, and better performance on tasks measuring story sequential memory and story verbalization skills. However, this training did not improve performance on measures of intelligence. The authors suggest that fantasy play may be a promising intervention technique. (ST)

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TRAINING FOR THEMATIC-FANTASY PLAY IN CULTURALLY  
DISADVANTAGED CHILDREN: PRELIMINARY RESULTS

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## ABSTRACT

Report of the preliminary findings of a broader longitudinal study investigating the effects of fantasy play intervention on socially and economically disadvantaged preschoolers. Young children directed in the role-enactment of imaginary stories were found to be significantly superior to control group youngsters on a number of measures of social and cognitive development. Fantasy play training significantly related to a higher incidence of spontaneous sociodramatic play, higher scores on Borke's (1972) Revised Interpersonal Perception Test, and better performance on tasks designed to measure story sequence memory and story verbalization skills. On the other hand, fantasy play did not significantly improve performance on several subtest measures of intelligence nor enhance ability to recall pictures as opposed to objects. The authors conclude by noting that fantasy play training is a promising and practical intervention method enjoyed greatly by both the children and the adult interventionists. Further use and study of this technique is encouraged.

## ACKNOWLEDGMENTS

The writers wish to express their gratitude to the large number of persons who made the present research possible. First, we would like to thank Mrs. Marlyn Levin, director of the Franklin preschool, for making the preschool available for the research. Without her encouragement and willingness to rearrange preschool schedules, as well as provide us with valuable space, the project would have been impossible. Nor could the project have succeeded without the great cooperation of Mrs. Carolyn Dunlap, the director of the volunteers program at Franklin, and the cooperation of the teachers in the preschool, Mrs. Betty Keown, Mrs. Marion Painter, and Mrs. Claudia Rose. On a day to day basis, these teachers adjusted their programs so that the children would be available for the research, and yet kept their own excellent program going at the same time.

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TRAINING FOR THEMATIC-FANTASY PLAY IN CULTURALLY  
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An important cognitive task during the preschool years is the development of the ability to use symbols and see relationships in the environment. The young child must learn to integrate diverse experiences and perceive sequence and pattern in the world around him. He needs to develop ways to interpret his experiences and utilize them in problem solving situations. In Piagetian terms, the preoperational child must develop "conceptual schemata" in order to relate scattered experiences and isolated concepts and thereby build a coherent representation of ostensive reality into which new information can be meaningfully absorbed.

Various writers, foremost among them Piaget (1951), have theorized that play behavior is the child's "natural way" of working through new experiences and some have proposed that certain forms of play are particularly valuable for social and cognitive development (Smilansky, 1968; Weikhart, 1970). One form of such play has been called sociodramatic play. According to Smilansky (1963) the criteria of sociodramatic play are: (1) a child should be interacting with at least one other child, (2) make-believe roles are taken by each child, (3) these roles are expressed in imitative actions and verbalizations, (4) actions and verbalizations substitute for real objects and concrete situations, (5) there is sustained verbal interaction related to the play episode, and (6) the play episode lasts for approximately ten minutes.

Sociodramatic play, then, involves role-enactment of people and events witnessed in everyday life. From the cognitive standpoint it is theorized that this form of play promotes the child's sense of patterns and relationships in the environment and thus helps the child integrate his experiences.

Smilansky (1968) believes that sociodramatic play is directly taught and encouraged in most middle class homes but is virtually absent in most socially disadvantaged homes. Consequently she proposes that sociodramatic play be introduced in preschools designed for the disadvantaged child. Her own research in Israel demonstrates that it is possible to teach disadvantaged children to engage in this form of play and numerous preschool programs in the U.S. are currently actively implementing her proposal.

A somewhat different version of sociodramatic play was introduced and evaluated in the intervention study reported herein. This form of play can perhaps best be described as thematic-fantasy play (TFP). TFP is similar to sociodramatic play in that it involves verbal role enactment in a group. However in TFP children dramatize traditional folk tales popular with children; e.g., The Three Billy Goats Gruff, Little Red Riding Hood, etc. Unlike sociodramatic play, then, TFP employs a structured play theme or story plot. It is hypothesized that by providing children with opportunities to enact story sequences they will be helped to see that events are interrelated and ordered in time and space. Theoretically this should promote the development of conceptual schemata or the integration of experiences in preschool children.

TFP is distinguished from sociodramatic play in yet another way. That is, TFP involves real fantasy. In TFP children are required to imagine and perform behaviors described to them in story narration but never actually observed in real life. TFP, then, demands more than what is usually meant by the imitative behavior so central in sociodramatic play; it demands imagined

behavior, i.e., a translation from symbolic story form into behavior form. Theoretically this quality of TFP should contribute to later ability to use symbols and think creatively.

An intervention program to teach TFP to disadvantaged children was introduced at Franklin Preschool in Detroit, Michigan during the Winter and Spring of 1972. We wished first of all to check the feasibility of training disadvantaged preschoolers in this type of play behavior. Once it became obvious that the children were receptive to this kind of intervention our goals broadened to include an evaluation of the effects of TFP on various measures of social and cognitive development. Two experimental groups and two control groups were established and training proceeded over a four month period. Utilizing a 2 X 2 factorial research design with TFP training and dimensionality (D) training as factors, four intervention curricula were generated: (1) one group of children received TFP training only, (2) one group received D training only, e.g., learning to label and categorize stimuli along various dimensions, (3) one group received both TFP and D training, and (4) one group received neither TFP nor D training; instead this group engaged in story listening and other activities unrelated to both TFP and D training. During the intervention training, records were kept of the childrens' behavior both while performing in the research groups and while engaging in spontaneous free play in the nursery school classroom. Following intervention training the four research groups were tested on several selected standard instruments and especially designed tasks in order to assess the effects of training.

#### Method

##### Subjects

Subjects were preschoolers in Franklin Elementary School in Detroit, Michigan. Four classrooms of approximately 20 children each were involved in

the project. The Ss were from primarily lower economic class background and included approximately 30% Southern White, 25% Black, 25% Northern White, and 20% Chicano. Many of the children were from families who recently moved into the city from the South. During the project, 24 Ss of the original sample pool of 80 Ss dropped from the preschool and 19 Ss enrolled in their places. In the remaining sample of 75 Ss there were 44 males and 31 females ranging in age from 2 years 10 months to 5 years 6 months with a median age of 3 years 3 months.

In each of the four classrooms Ss were divided into four research groups of 5 children each; the groups did not differ significantly on age and pre-test scores. The four matched research groups were then designated by chance for thematic-fantasy play (TFP) training; dimensionality training (D); mixed TFP and D training; and control (C) group activities. Each group met as regularly as possible 3 times a week for 15 minute sessions over a four month period. All groups had approximately equal exposure to the same three-member team of intervention teachers, any two of which were normally present during a group session.

#### Training Conditions

A 2 X 2 factorial research design was used in this study. One factor was thematic-fantasy play, the other factor was dimensionality training. This produced the four groups shown in Table 1.

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 Insert Table 1 about here  
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Fantasy (TFP) groups. Fantasy Ss were exposed to a TFP curriculum which consisted of systematic training in role enactment of action-type fairy tales, The Three Pigs, Hansel and Gretel, etc. Fantasy Ss first heard



a story read to them, then they were assigned parts and enacted the story with intervention teachers prompting and narrating and at times taking a role in the story themselves. Few props were used other than chairs and tables which represented such things as houses, trees, bridges, etc., depending on the story. The children would dramatize the same story several times over successive groups sessions and would take turns playing the various characters in the story. Following role enactment, children would discuss the story plot during which time emphasis was placed on remembering the story sequence and verbalizing the "reasons" for the events that occurred in the story, e.g., "Why did the Billy Goats cross over the bridge?", "Why did the Baby Bear start to cry?", etc.

Dimensionality (D) Training groups. These Ss received systematic training in labelling and classifying activities. Ss were taught to identify, describe, and classify social and physical stimuli along several dimensions. They were encouraged to verbalize about objects and discuss ways things go together in an interactional setting.

In some training sessions the children learned to recognize various forms and changes of physical stimuli. For example, during one session the preschoolers explored different kinds of grapes and the products of grapes -- e.g., red, green, and purple grapes, raisins, and grape drinks. In other training sessions the children learned to recognize various forms and changes of social stimuli. For instance, one meeting involved discussing sex and age appropriate clothing and objects. The children matched clothing and objects to cut-out cardboard representations of grandfather, father, mother, little boy, little girl, and baby. In short, in D training the children were given repeated opportunities to discuss social and physical objects in a group setting.

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Fantasy plus Dimensionality (TFP + D) groups. These groups received TFP training on 50% of the sessions, D training on 50% of the sessions.

Control (C) groups. The control groups were primarily engaged in listening to the stories used for role enactment by the TFP groups without dramatizing these stories themselves. These Ss also participated in other types of activities unrelated to TFP such as playing with cut-outs, cut and paste activities, singing, and so forth.

### Evaluation Procedure

Pretests. Before the start of the intervention training, the children were administered the Picture Completion subtest of the Wechsler Preschool and Primary Scale of Intelligence (WPPSI), and the Visual Reception and Visual Association subtests of the Illinois Test of Psycholinguistic Abilities (ITPA) as rough indicators of nonverbal intelligence, and the Similarities subtest of the WPPSI as a rough indicator of verbal intelligence.

Postmeasures. Evaluation of the effects of the intervention training utilized play observations and both standardized and specially designed tests. The following is a description of the assessment methods used to evaluate the effects of the intervention program.

1. Play Observations. On 20 different days during the intervention training the four classrooms were each observed for about 20 minutes. The observer on these occasions watched for the presence of either sociodramatic or thematic-fantasy play. When such play behavior was spotted the observer recorded the names of the children involved. A comparison between the proportion of Fantasy Ss and Control Ss who were observed at least once engaging in such play during the first 10 observations and during the second 10 observations and over all 20 observations was made using Chi Square Analysis. In addition, the change in the number of preschoolers observed participating

in dramatic free play from the first set of 10 observations to the second set of 10 observations was examined for both the Fantasy Ss and Control Ss separately.

2. Intelligence subtest postmeasures. The Similarities and the Picture Completion subtests from the WPPSI and the Visual Reception and Visual Association Subtests of the original ITPA were administered to a randomly selected subset of 32 preschoolers representing the four research groups involved in the project. Raw scores were used in analysis.

3. Interpersonal Perception Test (IPT). The IPT, designed and described by Borke (1971), and later revised (Borke 1972), is a test for empathy in young children. This test requires the child to choose the "face" depicting the appropriate affect another child would feel under certain prescribed conditions, related to the child in a story form. The four possible selections the child has are "happy", "sad", "afraid", and "mad" faces from which the child selects the most appropriate face. On each of the 23 items of the revised version we added a "neutral" face possibility and administered this modified version of Borke's IPT to a randomly selected subset of 47 Ss of the present study. Total right in the 23 item test was the score used in statistical analysis.

4. Picture versus Object Memory. Each pair consisted either of two toys, or of two pictures of toys. The task involved 5 paired associates. This task, designed to measure preschoolers' ability to represent concrete materials versus pictorial representations in memory, was administered to 72 of the 75 Ss involved in the program. Half the Ss in each of the four research groups, individually tested, received one of two sets of test materials. In set A, three of the five pairs were object pairs, two were picture pairs; in set B, three pairs were pictures and two were objects.

The picture pairs in Set A were the object pairs in Set B and vice versa. All Ss, then, received both objects and picture pairs. Number of errors (i.e., failure to respond or incorrect response) for picture pairs and for object pairs over three trials was computed for each S. Preliminary analysis showed that there was no significant difference on performance on Set A versus Set B, and these two sets were combined within each subject group for additional analysis.

5. Story Memory Task. This specially constructed test was used to assess preschool childrens' ability to remember a story sequence. Ss, individually tested, were first shown a series of 6 pictures and were told a story that the pictures depicted. The pictures were then shuffled and S was instructed to put the pictures back into the original order. S's score was the degree to which his order corresponded to the correct sequence. This score was computed as the Tau coefficient translated into Z score on which statistical analysis was performed. Forty-four randomly selected Ss were evaluated on this task.

6. Story Telling Task. This also was a specially designed task which was used to evaluate preschoolers' story telling skill. The Ss, individually tested, were asked to tell three stories from three different series of five pictures each. After each narration Ss were asked two questions pertaining to the story. These questions were intended to tap the preschooler's understanding for the reasons behind the actions depicted in the stories. Ss' scores on this task consisted of total verbal output on the three stories, total number of connectives used, and number of inferences made, either spontaneously or in answer to the questions asked at the end of each story. A randomly selected subset of 40 Ss performed on this task.

## Results

The results of the present intervention study are organized in seven parts: (1) observations of groups behavior during TFP training; (2) observations of spontaneous dramatic play; (3) intelligence tests scores; (4) Interpersonal Perception Test (IPT) scores; (5) picture versus object memory scores; (6) story memory scores; and (7) story telling scores.

Group observations. Since TFP is a relatively unevaluated approach to intervention training perhaps a few comments about TFP itself are in order.

It was observed that at first most preschoolers found TFP enjoyable but difficult. It was necessary to simplify the stories and participate with the children in the dramatization. It was also found helpful for one of the intervention teachers to narrate the story while the preschoolers role enacted and to provide the children with lines they had forgotten. Even with extensive coaching and prompting it was observed that most of the role enactment was nonverbal, since at first at least the children proved more willing to act than speak. Moreover, the children showed little appreciation for the story sequence. Often the group remembered only the final scene or the most exciting event in the story. The children had great enthusiasm for action, but little idea of why the action was taking place. In short, during the early stages of TFP intervention, it was apparent that the children had much room for improvement.

With practice both the children and the intervention teachers became more skillful in TFP. It was discovered that the children functioned better with a minimum of props; it appeared that the use of realistic props at times distracted the children. Consequently fewer props were employed in TFP. Also we found that the children seemed to depend on locations in the story remaining constant. It was helpful to identify places in the playing room

for the children. Knowing locations enabled the preschoolers to orient themselves for role enactment. They seemed to depend on places remaining the same from session to session, although they did not seem to mind switching roles. They even played opposite-sex roles with enthusiasm.

One final comment. Sometimes the children re-enacted events not in the way they happened in the story, but as they would have liked them to happen. Amusing instances of this behavior occurred periodically. For example, on one occasion a little girl performed her witch's role almost perfectly until the time came to be pushed in the oven. Suddenly the little actress announced that she was a "good" witch and invited Hansel and Gretel's mother over for coffee and cake! This tendency to assimilate the story, although benevolently accepted when it occurred, was something that was discouraged over the course of TFP training. With practice the children became more adept at following the sequence of a story and more efficient in TFP in general.

Play Observations. Results of the play observations over 20 sessions are summarized in Table 2. The results indicate that thematic-fantasy play has a significant and positive effect on the preschool child's likelihood of being observed participating in dramatic free play in nursery school.

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 Insert Table 2 about here  
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Significantly more Fantasy ss than Control ss were observed at least once during 20 observations engaging in dramatic free play. While 94.7% of the Fantasy ss were observed in dramatic free play, only 60.5% of the Control ss were observed. Training in role enactment of fairy tale stories apparently enhances the probability that preschoolers will engage in dramatic social free play in school.

Examination of the changes in frequency of spontaneous TFP over the year for the Fantasy Ss and the Control Ss indicates that the differences observed in Table 2 are a consequence of the intervention conditions. For example, over the first 10 play observations, 65% of the Fantasy Ss were observed in spontaneous TFP. During the second 10 observations, 92 of the Fantasy Ss were observed in such activities. Of the 40 Ss present over all 20 observations, 12 Ss participated in TFP during the second 10 observations who had not engaged in TFP during the first 10 observations. A chi square test for change in frequencies of occurrence (McNemar, 1959) indicated that this increase was significant, with  $\chi^2 = 7.69$ ,  $p < .01$ .

For the Control Ss, on the other hand, the corresponding percentages of Ss observed in spontaneous TFP during the first and second 10 observations were 45% and 40%; in short, the Control Ss showed a small but nonsignificant drop in spontaneous TFP.

It may be added that teacher reports substantiate this finding. On several occasions teachers brought to the attention of the experimenters that certain children were engaging in sustained dramatic play behavior not only during free play but at other times during the school day. For example, on one occasion an entire snack table, without adult prompting dramatized a birthday party involving imaginary animals. Inspection showed that 6 of 8 children so playing were Fantasy Ss.

Intelligence test scores. The Picture Completion and Similarities subtests of the WPPSI and the Visual Reception and Visual Association subtests of the ITPA were administered to a random subset of children as a post test in order to obtain a rough indication of the effects of training on intellectual performance. The sum of the raw scores on these four subtests constituted each child's score. The mean scores for the two fantasy conditions

were 41.6 and 38.0, respectively, for the children who received dimensions training and those that did not receive such training. For the two conditions that were not involved in the fantasy program, the corresponding means were 34.6 and 30.9. Thus in each of the dimensionality conditions the TFP groups showed higher scores on the intelligence measures than the non-TFP groups. However, these differences did not reach statistical significance,  $F(1,32) = 3.952$ . Neither dimensionality training, nor the interaction between dimensionality and fantasy training approached significance. These results suggest that the effects of TFP on intelligence deserves further attention.

Interpersonal perception test (IPT). Borke's (1972) IPT is designed to measure empathy in young children. The present study suggests that TFP training significantly increases the ability of preschoolers to respond correctly on the IPT. The mean scores for Fantasy ss and Control ss were 13.48 and 10.83 respectively, with  $F(1, 47) = 6.319$ ,  $p < .05$ . Thus, learning to role-enact characters from children's folk tales apparently increases the ability of preschool children to understand and identify the affective states of other children. Evidently, role enactment training can facilitate role taking ability.

In contrast to the effects of fantasy training, dimensionality training appears to be unrelated to performance on the IPT. Neither the main effects of dimensionality training nor the dimensionality X fantasy interaction approached significance.

A separate analysis was performed to determine the effects of sex and race on IPT, and to determine if these interacted with fantasy training. (This involved an unweighted means solution of a 2x2x2 analysis of variance over 51 ss.) As might be expected, there was a significant effect due to



sex, and a significant sex X fantasy interaction. In both the experimental and control groups, girls performed better on the IPT. While fantasy training appeared to close the gap, it did not eliminate it. Thus, even in the fantasy conditions the mean score for the girls was 14.88, for the boys it was 11.87. Neither the main effect of race on IPT nor any of the interactions involving race approached significance.

Picture-versus object-memory. The results of the present study replicated previous findings that memory for objects is superior to memory for pictures of these same objects. The relevant  $F(1, 72) = 76.55$ ,  $p < .001$ , was based on a within subject analysis. On the other hand, none of the main effects or interactions involving either fantasy training or dimensionality training approached significance. Apparently, TFP does not improve representational function for this type of rote memory.

Memory for stories. The ability of preschool children to remember a story sequence was assessed using a specially designed story-memory task; the children were required to arrange pictures so as to match an order shown to them earlier. (Note that the initial presentation was accompanied by narrative that explained the sequence of events in the pictures.) The sequences produced by the children were correlated with the original experimental sequence using the tau coefficient. The taus were converted to Z-scores so that each child's tau could be considered a score and a mean tau could be computed for each group (recall that untransformed distributions of taus tend to be extremely skewed); next, to facilitate computation, 1.0 was added to each tau (to convert all scores to positive numbers) and each score was multiplied by 100.

The mean score for Fantasy Ss was 26.2; for Control Ss 14.9. Analysis of variance indicated that the effects of fantasy training were significant,

$F(1, 44) = 4.901, p < .05$ . Neither dimension training nor the fantasy X dimension interaction approached significance.

It should be noted that while the difference between the TFP and control groups proved significant on this task, all the preschoolers found the task extremely difficult.

Story telling task. The story telling task was also constructed for the purposes of the present study. It was designed to assess the ability of the preschool children to articulate stories from picture series. Three types of measures were readily obtained from this task: (a) total verbal output in telling the stories, (b) use of connectives, and (c) tendency to use inferential statements which related the action in one picture to the action in previous pictures.

The children in the TFP conditions proved to be significantly superior to the controls on all three measures. An analysis of variance proved feasible for evaluation of total verbal output. The mean number of words used in story telling by the TFP children and control children were 71.7 and 49.6 respectively. The difference was highly significant;  $F(1, 40) = 7.925, p < .01$ . While dimensionality training did not approach significance; the dimension X fantasy interaction was significant,  $F(1, 40) = 16.314$ .

Both the use of connectives and the use of inference were extremely skewed, necessitating the use of a nonparametric statistic. The data was therefore analyzed using chi squares corrected for continuity. Turning first to the use of connectives, with 22 Ss per group, 100% of the Fantasy Ss used connectives at least once; only 63.7% of the Controls used them. The resulting chi square = 7.486,  $p < .01$ . Turning to the use of inferential statements, we find that 95.5% of the 22 Fantasy Ss used

such statements one or more times, only 63.7% of the 22 Control Ss used such statements. This difference yields a  $\chi^2 = 5.028$ ,  $p < .05$ . In other words, the data suggest that the Fantasy children made more of an effort to connect and integrate events in telling a story. In support of this conclusion it should be mentioned that after each child told his story, he was asked questions about his story. It was found that Fantasy Ss appeared to possess greater comprehension for the reasons behind the actions depicted in the series of pictures that constituted a story.

#### Summary and Conclusion

This study was conducted primarily to utilize and evaluate thematic-fantasy play as an intervention technique for socially disadvantaged preschoolers. Our preliminary observations and test results indicate that thematic-fantasy play is an enjoyably workable and promising intervention tool which significantly affects a number of positive behaviors and abilities in preschool children. Thematic-fantasy play was found to be significantly associated with a higher incidence of spontaneous social-dramatic play, superior performance on Borke's (1972) Interpersonal Perception Test, and better story memory and story telling skill on specially constructed tasks.

The effects of fantasy play on intelligence were more borderline. While a relatively large difference in obtained scores occurred between fantasy and control groups, variability was also high, and the effects did not reach acceptable levels of significance. It should be noted, here, that these effects are made even more equivocal by the fact that only selected subtests were employed, rather than a full scale test. More work is needed on this issue.

Finally, there was no indication that fantasy training influenced ability to recall pictures as opposed to objects. If the inferior memory for pictures, as opposed to objects, is due to poorly developed ability for mental representation, the type of representation required appears to be different from that involved in fantasy play.

The present report summarized the findings from the first year of a long-term research project. While our conclusions must be tentative at this time, the technique of fantasy training appears promising. The technique of dimensionality training does not.

Preschool intervention programs in the United States and abroad have utilized a rather broad range of techniques and methods intended to compensate for cognitive and socio-emotional deficits incurred by conditions of poverty. One of the major assets of thematic-fantasy play as an intervention technique is its appeal to preschool age children. Based on our observations of the children in training at this form of play it was obvious that almost all of the children found listening to, discussing, and then dramatizing "action-filled" fairy-tales very rewarding. The children appeared to regard thematic-fantasy activities as fun not work. The children's enthusiasm was shared by the intervention teachers, who enjoyed playing with the children, with the net effect that thematic-fantasy play proved to be a very encouraging, workable, and promising intervention technique, one that deserves further use and study.

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Table 1

Illustration of the 2x2 Research Design

|                        | Fantasy Training        | No Fantasy Training         | Total                   |
|------------------------|-------------------------|-----------------------------|-------------------------|
| Dimensions Training    | TFP + D, 19 <u>Ss</u>   | D group, 19 <u>Ss</u>       | 38 <u>Ss</u>            |
| No Dimensions Training | TFP group, 19 <u>Ss</u> | Control group, 18 <u>Ss</u> | 37 <u>Ss</u>            |
| Total                  | 38 <u>Ss</u>            | 37 <u>Ss</u>                | <del>75</del> <u>Ss</u> |

Table 2  
 Relationship between Fantasy Play Training  
 and Observed Dramatic Free Play over 20 observations

|  | Fantasy Play Preschoolers |      | Control Preschoolers |      |
|--|---------------------------|------|----------------------|------|
|  | N                         | %    | N                    | %    |
| Observed in<br>Dramatic Free<br>Play       | 38                        | 94.7 | 26                   | 60.5 |
| Never Observed<br>In Dramatic<br>Free Play | 2                         | 5.3  | 17                   | 39.5 |

$\chi^2 = 14.001, p < .001$