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USING "SOCIAL STORIES" TO ENHANCE THE SOCIAL AND BEHAVIOR
SKILLS OF PRESCHOOL CHILDREN WITH AUTISM OR
PERVASIVE DEVELOPMENTAL DISORDER

by
Amy F. Wiesen

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
May, 1999

Approved by:

Professor

Date Approved: 5/6/99

ABSTRACT

Amy F. Wiesen

Using “Social Stories” To Enhance the Social and Behavior Skills of
Preschool Children with Autism or Pervasive Developmental Disorder

1999

Dr. Jay Kuder, Thesis Advisor

Special Education Program

Autistic or Pervasive Developmental Disorder (PDD) children may exhibit impairments with communication skills, social skills, and cognitive skills. A treatment strategy called social stories maybe an effective visual aid that provides individuals with autism/PDD accurate information regarding situations they encounter or skills they are working on. This thesis examined whether the use of social stories would increase the academic, social, and behavior skills of autistic/PDD children. A study was conducted over a three month period on three preschool students from the Bancroft Preschool. The purpose of writing a social story for each child was to teach the students to perform suitable social skills in a variety of settings. Data on the percentages of occurrences was taken on each individual before and during the intervention to show whether the social stories helped make a positive impact on their behaviors. Overall, the statistical and practical results in this study suggest that social stories may be useful in teaching social behavior skills to children with autism/PDD.

MINI-ABSTRACT

Amy F. Wiesen

Using “Social Stories” To Enhance the Social and Behavior Skills of
Preschool Children with Autism or Pervasive Developmental Disorder

1999

Dr. Jay Kuder, Thesis Advisor

Special Education Program

The present study examined the effectiveness of using social stories to help teach social understanding to three preschool children with autism or Pervasive Developmental Disorder (PDD). The findings of this study indicate that social stories did increase appropriate academic, social, and behavior skills in autistic/PDD children.

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Chapter I

Research Problem

Introduction

Preschool children who have been diagnosed with Autism or Pervasive Developmental Disorder (PDD)-NOS do not consistently engage in appropriate social behavior. Autistic children may exhibit impairments with communication skills, social skills and cognitive skills. They may also display dysfunctional conduct such as self-stimulatory behaviors (*e.g., hand flapping*), self injurious behaviors (*e.g., punching themselves*) and aggressions (*e.g., hitting others*). Some social behavior characteristics that children with autism display are no eye contact, throwing toys or putting them in their mouth and running away when someone is trying to play with them or give them a hug. (*For more information on autism see chapter 2*).

Purpose of the Study

Children that are diagnosed with autism can show improved behavior and social skills if applicable interventions are implemented. Some approaches that are used to treat children with autism are medication (*e.g., fenflouramine*), vitamin therapy (*i.e., vitamin B6 & magnesium*), behavior modification, discrete trial training and auditory integration training.

Another treatment strategy to help social deficits is using Social Stories. Social Stories are an effective visual aid that provides individuals with autism accurate information regarding situations they encounter or skills they are working on. It is a short story written in a specific style and format. They benefit children with autism who have some basic language skills and who are functioning intellectually at the trainable mentally impaired range or higher. Some social stories have an extensive use of visual materials (e.g., drawings, photos of themselves). The information may include where a situation occurs, who is involved, how it begins and ends, what occurs, and why. Social stories can help improve a student's behavior, teach a routine and translate goals into understandable steps. They can also explain rules and the functions of objects or events as well as facilitate inclusion (Gray, 1994 & Gray and Garland, 1993). *(For more information on Social Stories see Chapter 3).*

Hypotheses

This study will examine the question whether the use of social stories will increase the social and behavior skills of autistic children. I have seen positive results with some of my previous students. Social stories can help children with autism acclimate to school and home life. I think writing social stories for my students can make a definite impact on their academic, social and behavior skills. Many children with autism are visual learners and writing a social story for a child teaches them what they can and should do. It is useful intervention to show them that there is a certain time and place where things should be done. Social stories can help autistic

children feel accepted and more comfortable around their peers. It can also help make parents feel more at ease with working with their child and/or taking their child out into the community. The goal of using social stories is to teach social understanding to children with autism.

Subjects of the Study

I will conduct my research by working with three of my students. My research will provide data on each individual and assist me in teaching them suitable social behaviors. Writing a social story for these students will help them improve their ability to engage in parallel play and share with other children. I also believe that writing a social story will help improve their understanding of how to play with toys appropriately. Writing a social story can help teach a person how to properly get someone's attention. Writing a social story will also teach them how to raise their hand quietly to get someone's attention when it is needed.

Conclusion and Overview of the Study

The goal of social story interventions is to increase appropriate behavior and decrease the inappropriate behavior. Other interventions can be effective but social stories are an interesting way to learn and it is fun for a child.

Chapter 2 will begin with an overview of autism and provide the literature review on the social intervention techniques practiced with autistic children. Chapter 3 will explain social stories in further detail and describe the research method used for the

social story study. Chapter 4 will state the results from the procedures used and chapter 5 will be the discussion section.

Chapter II

Literature Review

Introduction

What is autism? Autism is a developmental disability that generally appears within the first 3 years of life. Autism is the commonly used term for a range of disabilities medically classified as Pervasive Developmental Disorder (PDD). The diagnosis of autism is defined by the spectrum of communication and social behaviors of the individual. The diagnosis is strictly based upon observations of the child's behavior drawn by the diagnostician, usually a psychologist or a neurodevelopmental pediatrician. The main behavior symptoms of autism include disturbances in physical, social, and language skills, deficits in reciprocal verbal and nonverbal communication, abnormal manner of relating to people, objects, and events and abnormal responses to senses (Gerlach, 1997). Autism occurs in fifteen out of every 10,000 births and is four times more common in boys than girls (Gelach, 1997). The criteria for autistic disorder is stated in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, 1994), (see Table 1, p.6). Children diagnosed with autism may exhibit various behavioral symptoms, including hyperactivity, impulsiveness, aggressiveness, self injurious behaviors, temper tantrums, toilet training difficulties, and possibly depression (Allen, 1988). They may acknowledge sensory stimuli in strange ways and display unusual eating and sleeping habits. Some autistic individuals display uncontrollable behaviors. They may engage in stereotypical and repetitive behavior in their function of

TABLE 1. DSM-IV Criteria for Autistic Disorder

- A. A total of at least six items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):
- (1) Qualitative impairment in social interaction, as manifested by at least two of the following:
 - (a) marked impairment in the use of multiple nonverbal behaviors, such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
 - (b) failure to develop peer relationships appropriate to developmental level
 - (c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interests)
 - (d) lack of social or emotional reciprocity
 - (2) Qualitative impairments in communication, as manifested by at least one of the following:
 - (a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
 - (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
 - (c) stereotyped and repetitive use of language or idiosyncratic language
 - (d) lack of varied spontaneous make-believe play or social imitative play appropriate to developmental level
 - (3) Restricted, repetitive, and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
 - (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
 - (b) apparently inflexible adherence to specific, nonfunctional routines or rituals
 - (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting or complex whole body movements)
 - (d) persistent preoccupation with parts of objects
- B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.
- C. Not better accounted for by Rett disorder or childhood disintegrative disorder.

language and interests. Another common trait children with autism is their lack of fear to danger and harmful objects. Individuals with autism also have difficulty interacting appropriately with people, objects and events they encounter (Baron-Cohen & Bolton, 1993).

The development of appropriate social skills is a concern for people with autism who experience social and behavioral deficits. They can show improvement in their behavior and social skills when provided appropriate antecedent contingencies and planned intervention programs (Swaggert, Gagnon, Bock, Earles, Quinn, Myles, & Simpson, 1995). The goal of any social program for children with autism is to make a difference by improving their quality of life in integrated settings (Gonzalez, 1997). It is important for professionals to realize that in order to increase a complex behavior, such as social skills the child with autism must be motivated to learn and perform that skill.

Social Interactions

Studies have shown that autistic children exhibit little or no social interaction with others. They may also actively avoid social contact with others. Positive social interaction is an important skill for all children to learn. Several studies have investigated the effects of using teachers and nonhandicapped peers to teach children with autism appropriate social skills. Peers are a positive influence on helping people with autism develop social skills. If a child has the opportunity to interact with a responsive, normally developing peer, their social skills will improve (Roeyer, 1995). A study was conducted on the effects of peer-mediated social initiation, prompting and reinforcement procedures on the social behavior of autistic children (Strain, Kerr &

Ragland, 1979). For all the subjects studied, the treatments immediately showed positive changes in their social behavior only in the treatment setting. There were no behavior changes outside of the therapy setting. For the autistic children to gain generalized social behavior, the treatments should be given across time and settings.

Odom and Strain (1986) compared two procedures of peer initiations and teacher-antecedent interventions for promoting reciprocal social interactions of autistic preschoolers. In the teacher-antecedent intervention, the teacher prompted the autistic child to initiate interaction with their peers, who have been previously trained to interact appropriately to the autistic children. In the peer-initiation intervention, the peers were trained, prompted, and reinforced for initiating interactions with the autistic children. The results indicated that when the teacher prompted them, their initiations increased and the social interactions between the subjects and confederates became longer. The results also indicated that their social responses increased during the peer-initiation procedure.

The goals of Lord and Hopkin's (1986) study was to research the social behavior of autistic children in relatively naturalistic interactions with nonhandicapped children and assess their social behavior when they were with handicapped and nonhandicapped peers. All of the autistic participants showed an increase in proximity, orientation, and responsiveness when playing with nonhandicapped children and autistic peers. This study was controlled by the children and evidently autistic children can interact and learn from nonhandicapped peers without direct teaching from an adult.

Meyer, Fox, Schermer, Ketelsen, Montan, Maley & Cole (1987) investigated how much teacher intrusion and supervision is needed in the development of positive interactions between nonhandicapped and severely handicapped autistic children.

Hughes, Wolery, & Neel (1983, in Meyer et al., 1987), stated that adults who provide supervision to children with autism during social interactions is providing them with negative reinforcement for their correct responses. In this study, the teacher's supervision and instructional commands had little impact on the play interactions between the children with autism and the nonhandicapped peers. After preparation both groups socially interacted appropriately without minimal supervision.

Brady, Shores, McEvoy, Ellis, & Fox (1987) investigated multiple peer exemplar training where nonhandicapped peers initiated interactions with two severely withdrawn autistic children. Both the peer trainers and the autistic children showed an increase in their spontaneous interactions.

According to McEvoy, Nordquest, Twardosz, Heckaman, Wehby & Denny (1988), group affection activities produced increases in autistic children's reciprocal peer interactions during free play. The support of the affectionate component is important. The affection activities used in this study focused on the importance of friendship and showing affection. The children participated in singing songs, dancing, and playing games. Peer interaction increased during free play when the affection element was used, although when the affection component was absent there was no increase in peer interactions. Initially the children did not display generalization from the affection activities. The children learned how to generalize after the teacher prompted, modeled, and reinforced affectionate and other kinds of social behavior.

The purpose of Oke and Schreibman's (1990) study was to investigate the relative effectiveness of peer social initiations and autistic child's initiations on the social and disruptive behavior of an autistic child. The data suggests that peer social initiations and

teaching the autistic child to initiate may be effective at increasing positive social interactions and decreasing disruptive behaviors that may interfere with positive social interactions.

In Schleien, Mustonen, Rynders, & Fox (1990) study, the effects of social play in an integrated leisure education/physical education program was explored on the play behavior of children with autism on the four social levels of play: isolate, dyadic, group, and team. The details indicated that the type of play activity influenced the frequency of appropriate play by the children. Play activities in a dyadic, group, and team setting showed to be more successful with autistic children than was shown in isolated play situations.

Kamps, Leonard, Vernon, Dugan, & Delquadri (1992) examined the use of social skill groups to facilitate increases in social interactions for three children with autism and their nonhandicapped peers in an integrated first grade classroom. Social skill training was very beneficial and the information reveals that there were positive changes in the frequency of, time engaged in, and duration of social interactions, and the responsivity of the children with autism and their nonhandicapped peers.

Goldstein, Kaczmarek, Pennington, & Shafer (1992) investigated the effects of a peer-mediated intervention in which the peers' strategies were based on a descriptive study that examined communicative interaction of preschoolers with autism and their typical peers. The peer intervention package focused on attending to, commenting on, and acknowledging the behavior of the students with autism. It effectively assisted typical preschoolers and other autistic individuals develop an improvement in their social

interaction skills with one another. There was improvement with the non verbal children who were cognitively delayed.

Wolfberg and Scheler (1993) completed a study on integrated play groups to promote peer play with three autistic children. The results indicated that the children with autism showed a decrease in isolated play and an increase in more social forms of play. They also displayed a decrease in stereotyped object play and an increase in functional object play. The integrated play group model is an effective method to encourage autistic children to learn appropriate play skills.

Social initiations by autistic children and other retarded children to adults and other children were examined by Hauck, Fein, Waterhouse, & Feinstein (1995). The details state that autistic children engage in more ritualized and developmentally lower interactions and the retarded children made more positive playful initiations. The retarded children are more imitative and reciprocally interactive. Autistic children need to be engaged in highly social environments to help guide them to learn social initiations.

Strain, Danko, & Kohler (1995) studied the development of skills in areas of active engagement and peer social interaction in five preschool boys with autism. The research states tentative information that the social interaction for the autistic children produced “free effects” (e.g., children generalizing to new settings, persons, or competencies or maintain skills over time). Evidently the children’s engagement with peers increased. There was no indication that modifying engagement levels influenced the children’s peer social competence.

Ozonoff and Miller (1995) researched the effectiveness of a social skills training program for individuals with autism. They found that a social skills training program

that included systematic instruction in theory of mind principles proved to be effective on improving the performance on several false belief tasks although there was no improvement in the control sample.

The purpose of Strain and Kohler's (1995) study was to examine the impact of daily play activities with three preschoolers with autism and their typical peers. The data shows that all of the children learned to exchange a range of prosocial overtures, that included shares, play organizers, and assistance. After a contingency reinforcement plan was included, the results showed an increase in social reciprocity and peer effort. There was no correlation with the choice of toys and materials.

The goal of Roeyer's (1995) research was to examine the effectiveness of a peer-mediated proximity intervention to facilitate the social interactions of children with pervasive developmental disorder (PDD). The outcome of the research showed gains in time engaged in behaviors necessary for social interaction and peer interaction, responsiveness, the frequency of initiations, longer interactions without interruptions, and generalization. Although the children with PDD showed gains in their social interactions, they still had difficulty at the end of the treatment.

Roeyer (1996) conducted another study on the influence of normally developing peers on the social interactions of children with pervasive developmental disorder (PDD). The results indicated that children with PDD can acquire social relations with others if the proper social contexts are available for them. In the treatment group the children with PDD showed gains in their social behavior. The generalization results indicated that children with PDD can learn from nonhandicapped peers (Roeyer,1996).

Zannolli, Daggett & Adams (1996) conducted a study on teaching preschool age autistic children to make spontaneous initiations to nonhandicapped peers using low demands and high reinforcement. This approach is referred to as priming. The details summarize that by using priming, the two autistic boys showed an increase in spontaneous initiations. They also displayed successful initiations along with an increase in their rate of initiations. When the priming was reduced the autistic children showed lower rates of initiations.

The purpose of Mckee, Feldman & Morrier (1997) study was to investigate the naturally occurring levels of peer-related social behaviors in typical children and in children with autism. The implications suggested that it is easier to teach social skills to children with autism with younger typical peers. It was also found that some autistic individuals were actively avoiding interactions and some appeared to be oblivious to the typical peers.

Gonzalez (1997) conducted a study on young children with autism and same age typical peers in the area of social interactions that involved social skills training. The typical peers were provided with information about disabilities and received training in basic behavior management procedures and social skills training. The social skills the children were working on included greeting, imitating and following instructions, sharing, turn taking, and requesting assistance and objects. The training took place during both individual and small group sessions. The results proved to be effective by using the social skills training along with a reinforcement system. It showed an increase in the duration and frequency of the social skills in the autistic children. This research also confirmed that the strategies for teaching social behaviors is essential. The typical

peers assisted with reducing the behavior problems the autistic children displayed. This was accomplished by ignoring, redirecting, and giving them easy directions. Overall, the children with autism showed a decrease in unsuitable behaviors when the intervention was occurring. The information also suggests that additional behavioral programs, management techniques, and reinforcement techniques may need to be implemented depending on the functioning level of the autistic child.

It is evident from some of the studies stated that examinations need to be conducted to support the current research. In some studies typical peers are taught social behaviors and approaches to teach appropriate interaction skills to children with autism. Caretakers and teachers should provide children with autism opportunities to engage in play situations that involve other children (Roeyers, 1996). Further research is also necessary to determine if and how individuals with autism can generalize the learned social skills.

Incidental Teaching and Pivotal Response Training

Incidental teaching has been used to teach language skills and social skills to children (Oswald, 1990). In incidental teaching the instructor can prompt or praise the child by providing reminders, discussion, demonstration, and corrective feedback. Researchers have investigated the effects of incidental teaching on the social skills of handicapped children and adults. The results suggest that incidental teaching may enhance the generalization of trained social skills.

Pivotal response training is a program used to teach language to autistic children with autism. Modeling, role playing, and didactic instruction are strategies used. Pivotal response training has been shown to increase the motivation and generalization of children with autism. Pivotal response training can be effective if it is implemented correctly in school settings by typical peers (Pierce and Schreibman, 1995).

McGee, Almeida, Azaroff, & Feldman (1992) evaluated the strategy of promoting reciprocal peer interactions by using incidental teaching. The authors stated that it is effective for typical peers to use incidental teaching strategies to increase the reciprocal interactions of autistic individuals. It was also indicated that there was a result of maintenance of increased reciprocal interactions after the teacher faded the intervention.

Koegal & Frea (1993) conducted a study on the treatment of social behavior in autism through the modification of pivotal social skills. After training, the details state that children with autism who are high functioning were able to change their communication behaviors during social interactions.

In previous research (Koegal, Hurley, & Frea 1992, in Koegal et al, 1993) it was found that the social communication skills in children with autism can be improved. The results of that research indicated that they showed an increase in acceptable social behaviors and a decrease in inappropriate behaviors.

The purpose of Throp, Stahmer & Schreibman (1995) study was to examine the effects of teaching sociodramatic play with the use of pivotal response training to three children with autism. There were positive changes in the areas of play skills, social behavior, language skills, and behavior. They were able to generalize across toys and settings although they showed only some generalization to other play partners.

Pierce and Schreibman (1995) conducted a study on the effects of peer-implemented pivotal response training to increase the social behaviors in autistic children. This research found that pivotal response training is useful in teaching them social interactions. The children maintained prolonged interactions with their peers and initiated play and conversations. It was also effective in teaching them complex social behaviors and attention behaviors.

Pierce and Schreibman (1997) replicated their previous study using multiple peers to increase social behaviors in students with autism. After treatment the children with autism showed positive changes in their social behavior. By using multiple peer trainers the results indicated that they were able to enhance generalization.

Pierce (1997) also investigated the effects of using multiple peer trainers on language use and toy play skills along with to what extent did generalization take place with children with autism. The results after treatment show that children with autism engaged in high levels of interactions, initiations, varied toy play, and language use. Generalization was displayed across settings, stimuli, and peers.

Social Scripts

Social scripts are a teaching method to instruct social understanding to children. They are taught to enact out social situations they may challenge during dramatic play and/or instructional activities. They have been used to facilitate social interactions in familiar routines.

Loveland and Tunali (1991) did a study on the comparison of high functioning verbal children and adolescents with autism and language-matched subjects with Down Syndrome. The conversational social scripts involving the response to another person's distress was examined. The autistic subjects and the Down Syndrome subjects differed in their ability to appropriately respond to simple conversational situations. The autistic subjects had difficulty with responding, focusing on the conversation and shifting attention. The results suggest that some autistic people can use social scripts to guide behavior, although modeling is suggested.

A study on teaching social scripts to typical preschoolers and classmates with autism to promote interaction during sociodramatic play was investigated by Goldstein and Cisar (1992). With both prompting and script there was improvement in the social and communicative interactions with the children with autism and their typical peers. After each script their social behavior increased. The children were also able to generalize their behaviors with other trained children.

Krantz and McClannahan (1998) did research on the effects of a script-fading procedure to teach children with autism to initiate to peers. After the intervention, the peer initiations increased and when the script was faded the initiations continued to increase. The children with autism were also able to generalize with different teachers and activities as well as in different settings and times.

Krantz and McClannahan (1993) presented another study on a script-fading procedure to teach students with autism who also displayed minimal reading skills. The children did not participate until textual cues and prompting procedures were introduced. The participants imitative responses decreased as the scripts were faded. The authors

suggest that scripts and script-fading procedures enabled the children to converse with adults, to benefit from adults' language models and to progress with their language fluency.

Self-Management

Self-management is another treatment strategy used to teach autistic children adapted behaviors. Individuals are trained to monitor their own behavior. It may include self-evaluation of performance, self-monitoring, and self-delivery of reinforcement (Stahmer & Schreibman, 1992). Self-management provides children with responsibility and it can be highly motivating for them.

The results of previous studies about the effects self-management techniques suggest that they are successful for autistic children. It is beneficial among individuals with autism for them to achieve treatment gains for a long time as well as the absence of a treatment provider (Stahmer & Schreibman, 1992). Another benefit of self-management techniques may be progress in generalization and maintenance of behavior change (Fowler, 1984, in Stahmer et al, 1992).

Koegal, Koegel, Hurley, & Frea (1992) conducted a study that attempted to improve social skills and disruptive behavior in students with autism through self-management. This was completed in a number of integrated community settings without the presence of a treatment provider. The results of this study showed that the children who display severe deficits in social skills can be successfully treated with self-management skills without the need of intervention from a clinician.

The study investigated by Stahmer & Schreibman (1992) focused on the effects of teaching children with autism appropriate play in unsupervised environments using a self-management treatment package. Data was taken on their self stimulatory behaviors and on play. The results indicated that they learned to display appropriate play skills in unsupervised environments and their self stimulatory behaviors decreased. The children with autism were also able to generalize in new situations and some of the children were able to maintain their new acquired skills.

Social Stories

Social Stories provide individuals with autism accurate information regarding situations they encounter or skills they are working on. It is a short story written in a specific style and format. Some social stories have an extensive use of visual materials (i.e., drawings, pictures, photographs of themselves). The information may include where a situation occurs, who is involved, how it begins and ends, what occurs, and why. Social stories are a treatment strategy to help rectify social deficits in children with autism.

There is limited research in the area of social stories to support the positive effects it has on children with autism. According to Carol Gray (Gray & Garand, 1993) who developed social stories, believes they have been successful in improving elementary and secondary students' responses to social and behavioral situations in a short period of time. Social stories are most appropriate for students who are higher functioning. Following are social story studies that were written for children with autism. These examples focus on specific social areas of concern for each individual..

In Gray's and Garand's (1993) study, there are several social story case examples that have been successful. A mother wrote a story for her autistic daughter who was 9 years old. She had a difficult time picking up her brother from school. Before the story was written for Liesl, she displayed aggressive behaviors throughout the entire routine. The same day the story was introduced to Liesl, she demonstrated the appropriate behaviors that were stated in the story. At times Liesl's mother gave her verbal reminders about the story and prompted her to read the story.

Another story was written for Max, a 6-year-old boy with autism because he had difficulty learning the classroom routine. A picture schedule, monitoring, and verbal prompting were other approaches used before the social story was introduced to Max, although they were proven unsuccessful. After the story was read to Max one time he began to follow the routine. Max still had a problem taking off his hat, although the hat was not mentioned in the story. The story was then revised and a sentence about the hat was added. After the story was modified Max's problem was immediately corrected.

An additional story was written for Max because he was aggressive towards his sister's cat. Describing and modeling the correct behaviors were other techniques used to show Max how to treat the cat however they were not effective. The social story was immediately successful in teaching Max how to treat the cat. As a reminder, Max reviewed the story about once a month.

A story about anger was written for Celeste, a 7-year-old girl with autism because she exhibited self injurious behaviors, tantrums, and aggressions. Positive reinforcement and other behavior modification approaches were not successful. This intervention was successful in stopping Celeste from performing improper behaviors.

A successful story was written for J.B., a high school student with autism to teach him how to control his volume when he sang in the choir. The first day the story was read to J.B. he did not need reminders in class, but on some days reminders were minimal. One day his teacher forgot to read the story to J.B., although he sang suitably the evening of the concert.

In addition to the previous case studies, there have been other experimental studies involving the use of social stories with autistic children. For example, a study (Swaggert, Gagnon, Bock, Earles, Quinn, Myles & Simpson, 1995) was completed on 3 children who fell within the spectrum of having moderate to severe autism and pervasive developmental disorder. This study describes the use of social story interventions with a more traditional behavioral social-skills training strategy to teach appropriate social skills. The interventions included social stories and the social-skill intervention model advocated by Simpson and Regan (1988), (Swaggert & et al, 1998).

A social greeting intervention story was written for Danielle, who was an 11-year-old girl diagnosed with autism. Danielle showed aggressive and excessively friendly behavior (grabbing, scratching, squeezing, screaming) towards familiar and unfamiliar people. In addition to the first social story about greetings, a second story was written about how she can behave when she became upset. A response cost system was also used. After the interventions, the results indicated that Danielle greeted people more appropriately and her aggressions decreased (Swaggert & et al, 1995).

Another story about sharing was written for Adam, who was a 7-year-old boy who displayed self injurious behaviors, aggressions, and tantrums. He preferred to play by himself and would often scream, hit, kick, head butt, and bang when instructed to play

with a non-preferred toy or with others. A similar story was also written for Darrell who was also 7-years-old because he grabbed materials from others and tried to choke or knock people down during situations that involved social interactions. Both Adam and Darrell's social story interventions have shown positive results in their social skills (Swaggert & et al, 1995).

In another study (Kutter,1998), the effects of social stories was analyzed in relation to decreasing precursors to tantrum behaviors with Jon, a 12-year-old boy diagnosed with autism, Fragile X syndrome, and intermittent explosive disorder. Jon displayed unacceptable vocalizations (screaming and cursing) and dropping to the floor during morning work and lunch time. Data was taken on the occurrence of these behaviors. The data revealed a decrease in the antecedent to tantrum behavior when the social stories were accessible to the student and an increase in the targeted behavior when the intervention was removed. This study confirmed that people with autism have a visual learning style and the use of pictures, photographs, and line drawings can be beneficial when part of their learning environment (Kutter, 1998).

Conclusion

The previous mentioned studies provide support for the use of social stories with autism/PDD. According to prior findings, social stories can benefit students individually. They are also helpful with students that function at a variety of levels. More research is needed to prove the effectiveness of using social stories to teach social understanding to autistic children.

Researchers have investigated and examined a variety of treatment strategies to teach appropriate behaviors and skills to children with autism. Apparently the preceding research can be profitable to help meet the needs of children with autism. It is also evident that further research should be continued.

Chapter III

Design of Study

Introduction

The purpose of this study was to determine the effectiveness of using social stories to help teach social understanding to children with autism/PDD. In order to evaluate the hypotheses, a study was conducted on three students to help teach a social skill to each individual. Social Stories were written for each student to teach them each a specific social behavior. Data was taken on each individual to show whether using the social stories helped make a positive impact on their behaviors. The percentage of occurrences for each individual was calculated on a daily basis to show if the social stories were successful.

Subjects

This research study took place at the Bancroft Preschool in Haddon Heights, New Jersey. I selected three students from my classroom who exhibited specific social behaviors that needed improvement. The participants' names are Erich, Eric, and James. I felt that these students would improve their social understanding by the application of the social story intervention. I began collecting data on two students on December 17, 1998. Later, on January 6, 1999, I then started taking data on the third student. The information provided in this study was compiled over a three month period.

Erich:

Erich is a 5-year-old boy that is doing very well academically and is very social with his peers and teachers. Erich plays and converses with his peers and is beginning to display the ability to share with them spontaneously. He has demonstrated the ability to ask and answer “wh” questions appropriately, read some words by sight, and can name most body parts. Erich can also name familiar objects by function and follow 2-3 step commands involving sequence. He also shows pride in his achievements and can follow rules during individual and group activities. Although he displays good social and communication skills, he sometimes talks to people without getting their attention properly. He occasionally screams their name or repeatedly says their name. Erich’s goal is for him to learn how to get someone’s attention appropriately. This will socially prepare him to transfer to a regular classroom in a public school next year.

Eric:

Eric is an intelligent 4-year-old boy that is doing well academically and appears to want to learn. He is very social with his classmates and teachers and has shown much progress this year in school. Eric has displayed the ability to name most pictures of familiar objects and repeat new words. He can identify some body parts and identify pictures of objects by function. Eric has demonstrated the ability to respond to directions and where questions. He can state his age and knows that he is a boy. Eric can also greet his peers and teachers. He responds well to positive reinforcement and affection and shows feelings of excitement and interest. He can play independently and put toys away

given verbal and gestural prompts. He is also currently learning how to play with toys properly. Pre-intervention observations reveal that he likes to have all the toys to himself. If he does not have all the toys he will begin to scream and cry, as well as grab toys from others. Eric's goal is for him to share toys with others while he is playing.

James:

James is an affectionate 5-year-old boy who has shown progress in the past two years at school in the areas of academics and social skills. He works hard on his goals and has shown improvement in his attending skills. James has displayed the ability to name most pictures of familiar objects and repeat new words. He is able to answer "why" and "where" questions, request permission, request assistance and follow verbal directions. James has also demonstrated the ability to receptively and expressively identify objects by usage. He has also increased his length of sentence structure and has shown improvement in spontaneous language. James can respond appropriately to social contact made by familiar adults, play cooperatively with other children, and shows pride in his achievements. He has also demonstrated the ability to greet his teachers and classmates and put toys away neatly.

James wants to do the right thing and is a definite pleasure. He currently screams out during lunch to request the foods he wants to eat. He has the potential to get someone's attention in the proper manner. James' goal is for him to raise his hand quietly during lunch. In January 1999, James started an inclusion program to help get

him ready for a regular classroom. This goal will help prepare him for public school next year.

What are Social Stories?

Social Stories are short stories that are written for children with autism/PDD. They are a visual learning technique used to describe social situations in terms of pertinent social cues and often define suitable responses. They benefit children with autism who have some basic language skills and who are functioning intellectually at the trainable mentally impaired range or higher. They can have a positive impact on the social responses of individuals with autism. It provides students with direct access to social information. Social stories share appropriate information including where and when a situation takes place, who is involved, what is occurring, and why. (Gray, 1994 & Gray and Garand, 1993).

Carol Gray used this approach in 1991 with her students. She wrote a story for a child describing the rules on how to play a game and the story had immediate positive results. Gray soon recognized that more of her stories were effective in helping children with autism. They emphasized highly social situations with social implications. They benefited her students. Gray referred to them as social stories. Carol Gray and Joy Garand introduced social stories to the field of education in 1993 (Kutter, 1998).

Guidelines for Writing Social Stories

When writing a social story for a child, it is important for one to know Carol Gray's approach in writing a story because there are certain rules and procedures to follow. The following information is based on the work of Gray (1994) and Gray and Garand (1993). Additional details are also stated by Swaggert et al (1995), Kutter, (1998), and The Morning News (1998),

Initially, it is important for the author to consider the perspective of the child for whom the social story is written. Secondly, the author must determine the target behavior. The author may even try to use some of their own techniques when writing a social story. Using a social story for a child with autism can be very beneficial for their social and learning environment, although it can not be used as the only intervention tool.

Social stories are usually written by parents and/or professionals who have an understanding of an autistic child's ability. Social stories should be written in first person and in reality. Social stories should be written within the student's comprehension level and should positively state the desired behavior. For example, stating "Rick will try to chew with his mouth closed" instead of "Rick will not chew with his mouth open". It should include vocabulary and print size to meet the child's ability. The author should write one concept per page that includes 1 to 4 sentences. Gray suggests using accurate words like *usually*, *sometimes*, *can* or *will try* instead of using *always*. Social stories contain titles in explanation or question form. Putting the sentences on black construction paper can guide attention to the words in the story. Some social stories may have pictures, photographs or just words. Gray (1994) views that illustrations may narrowly define a situation, sometimes resulting in limited

generalization. They can enhance student understanding of appropriate behavior. On the otherhand, representations can be distracting to be misinterpreted (Gray & Garand, 1994).

The social stories are comprised of 3 types of short, direct sentences that include descriptive, perspective, and directive sentences. The most important sentences are the descriptive and perspective sentences. Descriptive sentences provide information about where a situation occurs, who is involved, and what they are doing and why. It is very important to write a story that includes more descriptive sentences to assist the student in learning the correct responses to a situation. Perspective sentences are statements that portray thoughts and feelings of other people. Directive sentences are individualized statements that clarify what is expected as a response to a given situation to be successful.

The basic social story ratio looks as follows:

0-1 directive sentences

2-5 descriptive and/or perspective sentences

There are many approaches to implement a social story. The parent or teacher can read the social story to the student and model the desired behavior. The child can also read the story to themselves. In some situations the child can listen to the story on an audio tape recorder or watch it on videotape. There are methods used to check a child's comprehension to see if they understand the meaning behind their social story. To check for their understanding checklists can be applied, the child can answer questions and/or the child can role play the target behavior. It is also important to keep

in mind that from time to time social stories do not work for everyone. At times they may need some adjustments or they may be inappropriate for a particular child.

Individual Social Stories

Erich, Eric, and James each had a social story written about a certain target behavior that required intervention. The procedure for each child's study was based on their level of functioning in the areas of their communication skills and social skills. Although this thesis was compiled over a three month period it is still an ongoing procedure. My long term goal of using social stories is to teach a specific skill to my students, in addition to eventually fading the story completely where they can generalize and remember the new skill taught to them. The procedures I had in mind to follow for each child's intervention were almost the same except for the criteria. Baseline data was collected for five consecutive days for all three individuals involved. The number of occurrences and the number of non-occurrences of each target behavior were documented. Sample data forms can be reviewed in appendix 1. When a child earns/earned a score of at least 70% or 80% (depending on the individual) for 5 consecutive school days then the story was/would have been faded. At this point, the story would then have been read to the participant every other day. This criteria of reading the social story to the child would have been faded to every three days, to every four days, to every five days, to every 10 days and then once a month as long as the child continued to received their score for 5 consecutive school days. The purpose of fading the social story from the children is to hopefully prove the story was successful in

teaching them a new social skill. Modifications needed to be made for James which will be explained later in the chapter. Following are the details and procedures that took place for each child's intervention. The photographs for each child's story was taken over a course of three weeks and the story's took about two weeks to write and prepare. Each child's social story can be viewed in appendix 2.

Erich:

The purpose of writing a social story for Erich was to assist him on how to suitably get someone's attention by saying his or her name. In some situations Erich might have to say, "excuse me _____". Erich's goal is to approach adults properly when he wants to request something, tell them something, and/or try to get by if someone is in his way.

Erich had a story written about him with photographs of him showing him how to get someone's attention the proper way. Erich's social story study began on December 17, 1998. Erich had many incidental opportunities throughout the school day to get other people's attention by saying their name and/or "saying excuse me _____". The number of occurrences and the number of non-occurrences that Erich did or did not correctly get someone's attention was documented for thirty-eight days. The percentage of occurrences that Erich did get someone's attention was recorded. Baseline data was documented for five days. When Erich earns a score of at least 80% or more for 5 consecutive school days then the story will be faded.

On the sixth day the intervention began. The social story was read to Erich each morning for thirty-three days.

Eric:

The purpose of writing a social story for Eric is to help teach him how to share toys with others while he is engaged in parallel play. Eric's goal is for him to play with a specific toy/toys at the table while another child is playing with the same toy/toys.

Eric had a story written about him with photographs of him showing him how to share toys with his classmates. His social story study began on January 6, 1999. Eric was placed in situations to play with a toy of his choice while another child played with the same toy. This gave him the opportunity to share with other children. Eric was shown two or three items to select from. Eric's choices of toys were beads, zoo animals, Cooties, cars and trucks, puzzles, books, blocks, big dinosaurs, and coloring with crayons. There were one to two five minute sessions. Each interval lasted for 30 seconds with a total of 10 intervals. The number of occurrences and the number of non-occurrences that Eric did or did not share was documented for thirty-three days. The percentage of occurrences that Eric did play and share with another child was recorded. Baseline data was documented for five days.

On the sixth day the intervention began. The social story was read to Eric each morning. When Eric earned a score of at least 80% or more for 5 consecutive school days the story was then faded. This first condition lasted fifteen days. At this point the story was read to him every other day. This condition lasted five days. This criteria of

reading the social story to him was then faded to every three days that took place for eight days.

James:

The purpose of writing a social story for James is to teach him how to raise his hand quietly during lunch when he is trying to get someone's attention.

James had a story written about him with photographs of him showing him how to raise his hand during lunch using a calm mouth. His social story study began on December 17, 1998. The number of occurrences and the number of non-occurrences that James did or did not raise his hand using a calm mouth was documented for forty-three days. The percentage of occurrences that James did raise his hand using a calm mouth during lunch was recorded. When James earned a score of at least 70% or more for 5 consecutive school days then the story was faded. Baseline data was documented for five days.

On the sixth day the intervention began. Each day the social story was read to James in the classroom right before lunch for nineteen days. This procedure was unsuccessful. The story was then read to James in a more restricted area. It was read to him in the kitchen right before lunch. When James earned a score of at least 70% or more for 5 consecutive school days then the story was faded. This condition was more successful and lasted twelve days. At this point, James' intervention returned back to the first condition for seven days where the story was read to him in the classroom directly before lunch.

Conclusion

Individual social stories were written for 3 students diagnosed with autism/PDD to teach them a functional social skill. Each child had different interventions and they each moved at different paces with the new skill they were learning. Chapter 4 will present the results from the data taken. Each child's social story will be documented and explained in detail both in written and data form.

Chapter IV

Results

Introduction

The purpose of this study was to determine if social stories increase appropriate social and behavior skills in autistic/PDD children. The subjects of this study were three preschool handicapped children who were 4 and 5 years old. The participant's names were Erich, Eric, and James. Each had a specific target behavior to treat and a social story written based on their own individualized needs.

Data was taken approximately over a three month period to show whether using the social stories helped make a positive impact on their behaviors. The percentage of occurrences and nonoccurrences for each individual was calculated on a daily basis on data sheets to show whether the social stories were successful. The percentage of occurrences were also graphed which can be seen in figures 1, 2, and 3.

Analysis of the Data

Erich:

The purpose of writing a social story for Erich was to teach him how to appropriately get someone's attention by saying their name and sometimes saying "excuse me _____". The percentage of occurrences and nonoccurrences that Erich did

or did not correctly get someone's attention was documented. The percentage of occurrences that Erich did get someone's attention was graphed each day. See Figure 1 for more details.

During the baseline stage data was collected for five days. Erich's percentages ranged between 6 and 75. The baseline mean score was 35%. During the social story intervention that lasted thirty-three days, Erich's percentages ranged between 50 and 100. The overall mean score for this was 73%.

Between January 6, 1999 and February 4, 1999 (eighteen days), Erich's percentages ranged from 50 to 100. The mean score for this portion was 71%. Erich then went to Florida on vacation for eleven days. Then from February 15, 1999 until March 12, 1999 (fifteen days), Erich's percentages ranged between 58 and 100. The mean score for this portion was 75%.

Unfortunately due to the time permitted and Erich going on vacation the procedures that were going to be conducted were unable to take place. The social story showed that the intervention was successful because Erich showed a 40% increase on learning how to appropriately get someone's attention.

Eric:

The purpose of writing a social story for Eric was to help teach him how to share toys with others while he is engaged in parallel play. The percentage of occurrences and nonoccurrences that Eric did or did not share toys with others was documented. The percentage of occurrences that Eric played and shared appropriately was graphed each day. See Figure 2 for more details.

During the baseline stage data was collected for five days. Eric's percentages ranged between 50 and 85. The baseline mean score was 70%. During the first stage of the social story intervention, the story was read to Eric every day and this phase lasted fifteen days. The percentages ranged between 75 and 100 with a mean score of 90%. This was an improvement of 20% compared to the baseline results.

During the second stage of the social story intervention, the story was read to Eric every other day and this phase lasted exactly five days. The percentages ranged between 90 and 100 with a mean score of 94%. This was a 24% improvement compared to the baseline results and a 4% increase compared to the first intervention.

During the third stage of the social story intervention, the story was read to Eric every three days. For the eight days that Eric participated during this phase the percentages ranged between 70 and 100 with a mean score of 83%. This was a decrease in percentage compared to the first intervention by 7% and by the second intervention by 9%, although it is still a 13% increase compared to the baseline results.

Unfortunately due to the time permitted all of the procedures were unable to take place. The social story showed that the intervention was successful because Eric showed an increase on learning how to share toys with other children while he parallel played.

James:

The purpose of writing a social story for James was to teach him how to raise his hand quietly during lunch when he is trying to get someone's attention. The percentage of occurrences and nonoccurrences that James did or did not raise his hand appropriately during lunch was documented. The percentage of occurrences that James did raise his

hand correctly during lunch to request his lunch, snacks, and/or juice was graphed each day. See Figure 3 for more details.

During the baseline stage data was collected for five days and James received a mean score of 0%. During the first stage of the social story intervention, the story was read to James every day in the classroom before he ate lunch in the kitchen. This phase lasted nineteen days. The percentages ranged between 0 and 50. The overall mean score was 11%. It is important to note that for the first thirteen days of the intervention James continued to receive scores of zero. He did not show an improvement until the fourteenth day of the intervention. The mean score for the last six days of this phase was 34%.

During the second stage, which was a more restricted phase, the story was read to James in the kitchen right before he had the opportunity to eat his lunch. This phase lasted twelve days. The percentages ranged between 60 and 100 with a mean score of 82%. This was an improvement of 82% compared to the baseline results and a 71% increase compared to stage 2.

The procedures for the third stage of the social story intervention were the same as the procedures in the first stage. The story was read to James every day in the classroom again before he ate lunch in the kitchen. For the seven days that James participated during this phase the percentages ranged between 40 and 83 with a mean score of 64%. This was a decrease in percentage compared to the second intervention by 22%. It is still an increase compared to both the baseline results and the first time this phase was introduced to him.

Unfortunately due to the time permitted all of the procedures were unable to take place. The social story showed that the intervention was successful because James learned how to raise his hand during lunch using a calm mouth.

Conclusion

The results of this study indicated that the effects of the social story intervention made a significant impact on three autistic/PDD children's social and behavior skills. Each individual showed remarkable improvements on the skills they were working on. Chapter 5 will include a discussion section that will consist of the practical aspects of the results portion as well as an overall summary of the thesis.

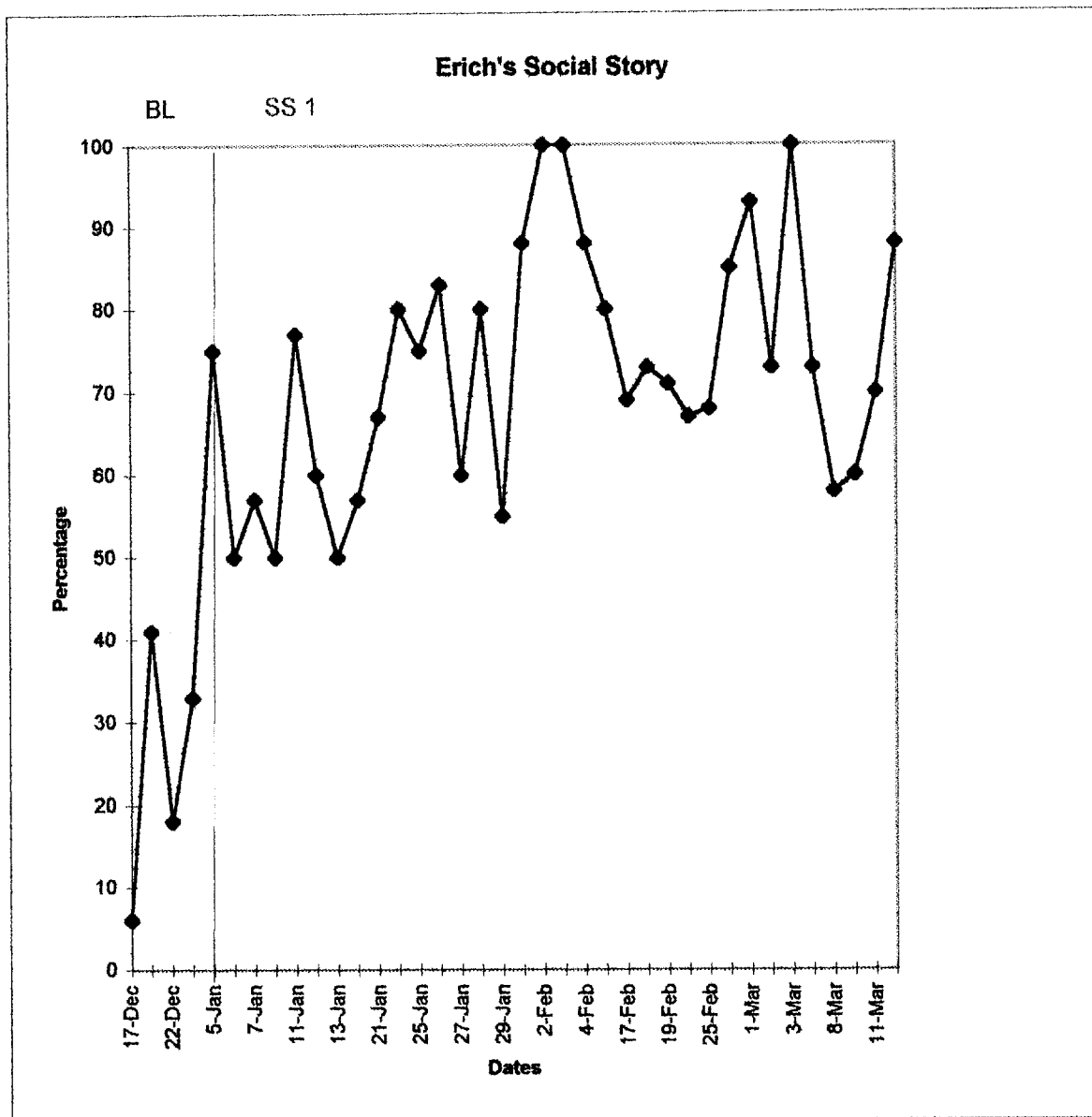


Figure 1 Depicts Erich getting someone's attention appropriately prior to and following the social story intervention.

BL = Baseline

SS =social story was read to Erich every day

* Erich went on vacation from February 5, 1999 through February 14, 1999.

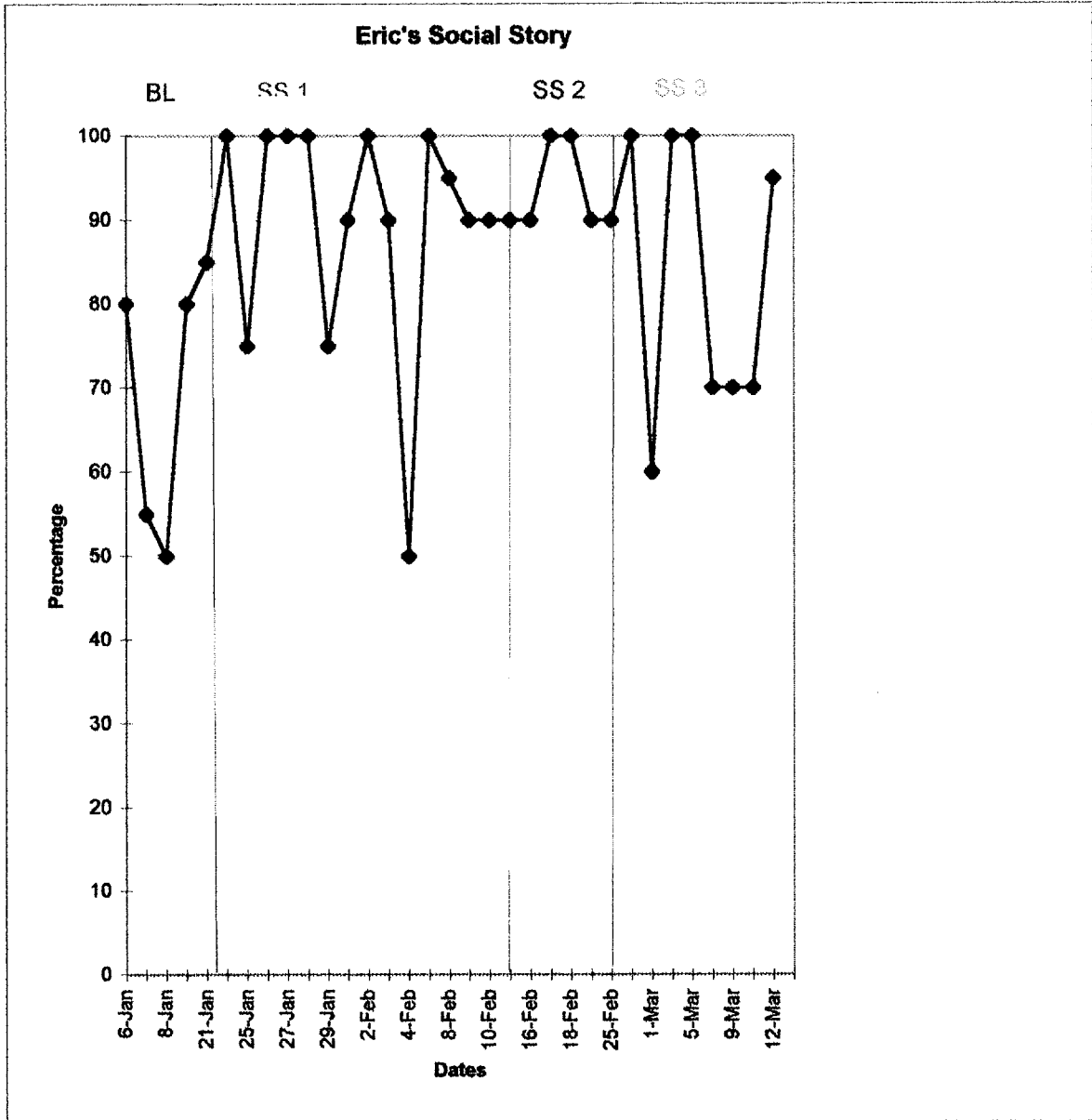


Figure 2 Depicts Eric sharing toys with others while he is engaged in parallel play prior to and following the social story intervention.

BL= Baseline

SS 1 = social story was read to Eric every day

SS 2 = social story was read to Eric every other day

SS 3 = social story was read to Eric three days

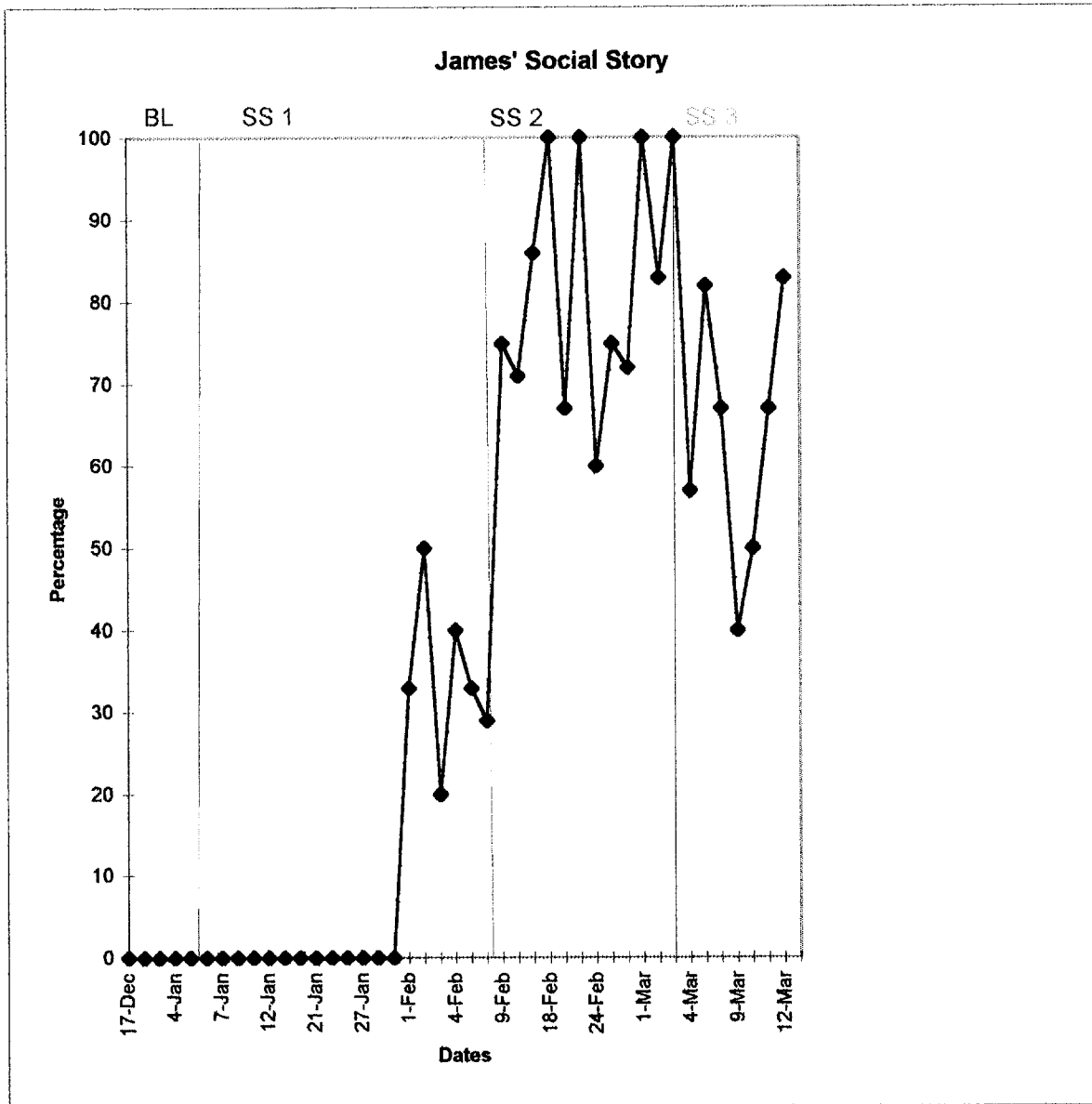


Figure 3 Depicts James raising his hand prior to and following the social story intervention.

BL = Baseline

SS 1 =social story was read to James in the classroom

SS 2 = social story was read to James in the kitchen

SS 3 =social story was read to James in the classroom

Chapter V

Discussion

Significance of the Study

Preschool children who are diagnosed with Autism or Pervasive Developmental Disorder (PDD)-NOS are known to display communication and social behavior deficits. These children can show improved behavior and social skills if appropriate interventions are practiced. This study examined the effectiveness of using social stories to help teach social understanding to three children with autism. Previous studies of the use of social stories show that this intervention can benefit children. The findings of this research also support that social stories were useful in teaching social understanding to each child who participated.

Results

Prior Research:

According to Carol Gray (Gray & Garand, 1993), who developed social stories, recognized that her stories were effective in helping children with autism/PDD. The previous study on Liesl showed that the social story intervention taught her how to act appropriately when picking her brother up at school. Another study about Max emphasized that social stories were effective in teaching him how to learn the classroom routine and how to treat his sister's cat.

Last year at the Bancroft Preschool a social story was also written for Erich to teach him how to follow the morning routine before he came to school. Before the story was introduced Erich exhibited inappropriate behaviors and had a difficult time following directions. Erich's story was read to him both at home and at school. He also received positive reinforcement from his parents and teachers. His social story intervention was successful because he was able to follow his daily morning routine appropriately. Another social story was implemented for a five-year-old boy in the same classroom to teach him the routine to transition from work/play to lunch. Prior to his social story intervention this child displayed tantrum and aggressive behaviors. After the story was introduced this child began to follow the routine appropriately. Soon after, he began reading and memorizing his story. These studies as well as other previous mentioned studies discussed in this research paper show that social story interventions are helpful in teaching children with autism social understanding.

Erich:

The goal for writing a social story for Erich was to assist him on how to suitably get someone's attention by saying his or her name. The results indicated that his social story intervention proved to be successful. Erich appeared to enjoy working on this goal and was proud of his success. He started to show an interest in reading his social story to himself approximately one month after the intervention began. He also eventually memorized his story. Erich displayed some regression with this goal after he returned from his eleven day trip to Florida. This minor regression might have occurred on his

account of having more of an opportunity to socially initiate to more people in a school setting. Overall, Erich did well on learning a new goal that will be very beneficial for him as he interacts with people while he learns and grows.

Eric:

The goal for writing a social story for Eric was to assist him on learning how to share toys with others while he was engaged in parallel play. The results indicated that his social story intervention proved to be successful. At first, Eric's attention span was shorter than it is at this time. He did not know how to handle listening to the story and he continuously turned the pages before each page was read to him. Eric eventually appeared to enjoy working on this goal and at the same time he practiced learning how to play with a variety of toys appropriately. Some of the toys he engaged with are ones he recently became interested in. Soon after, Eric began memorizing the story and recited it as it was read to him. He also displayed the ability to read a book and put a puzzle together with another child. At the same time he verbally interacted with the other peer. Eric did well on learning a new goal that taught him and gave him practice with playing with toys properly. He also learned how to play and share with other children as well as interact with them pleasantly.

James:

The goal for writing a social story for James was to assist him on learning how to raise his hand quietly during lunch when trying to get someone's attention to request

what he wants to eat. Ultimately, the results indicated that James social story intervention proved to be successful. Initially, he had some difficulty with learning the task at once. In the beginning, James displayed the ability to raise his hand but not with a quiet mouth and he did not keep his hand up long enough to get someone's attention. He also did not understand the concept to put his hand down. The demands were too intense for him to handle. James was also working on his goal during a group lunch when he ate with his classmates. He was the only one that was required to raise his hand. This definitely could have been an impact on his delayed progress with learning this goal. James did not show progress until the condition was changed to a more restricted prompt. He began to understand the concept of raising his hand when the story was read to him in the kitchen. James eventually started acting out the story and reciting the story. He also raised his hand on at least two occasions during his inclusion program. Overall, James did well on learning a new goal that will be very beneficial for him as he progresses in a school environment.

Limitations and Implications

The development of appropriate social skills is a concern for people with autism who experience social and behavioral deficits. They can show improvement in their behavior and social skills when provided appropriate antecedent contingencies and planned intervention programs (Swaggert, Gagnon, Bock, Earles, Quinn, Myles, & Simpson, 1995). It is important for preschool children with autism to acquire appropriate social skills for them to function and fit in with other people in a classroom environment and/or community based settings. Teaching preschool children proper social and

behavior skills can prepare them for inclusion programs. It is essential for children to know how to get someone's attention properly when he/she is at school, home, or out in the community. It is important to know how to play, share, and socially interact with other people. It is also necessary for people to learn how to raise their hand in school, just like their peers. These skills are important for children to practice for them to function in their everyday routine.

In this study, there was enough data to verify that the three participants in the social story intervention showed a significant improvement in their social skills. Social stories are also another educational tool to encourage children to read as indicated in this study. Social stories can also help remedy a student's behavior, teach a routine and translate goals into understandable steps.

One of the problems in this research was the variability. The research results may have been more explicit and different if more time was available. Erich had the opportunity to work on his goal throughout the entire school day. Eric and James needed more practice with their goals than the time that was allotted. Unfortunately, Eric only had ten planned minutes to work on his goal and James only had approximately forty-five minutes to work on his goal. If Eric and James had more time they might have had more success. The social stories that were written for the children were lengthy and could have been revised to meet their needs more. I could have shortened the social stories for the participants and the same affects could have been met and/or they could have understood the concept sooner.

Recommendations for Further Study

Social stories were created to be used on an individual basis. After conducting my research and observing that other children were interested in their peers' story, I began to consider using social stories that also involve group lessons. This study could have examined the use of using social stories in small and large group instruction. This study could have examined one objective by using a social story with a variety of children. Some suggested social story studies that could be used in a preschool classroom can be focused on toileting, sharing/turntaking, using a napkin, and raising your hands. These are just a few examples. When teaching children with autism keep in mind different ideas for social and communication goals, both at home and school that need intervention. At the same time, think of ways to incorporate a social story to teach a child a skill.

Conclusion

Writing Social stories for children with autism/PDD will hopefully make a positive impact on their academic, social and behavior skills. It is important for the people who have direct contact with individuals with autism be skilled when working with them. If someone is using social stories as an intervention, it is essential to be familiar with social stories and know how to implement them. Teacher's who use social story's for instruction can make learning fun and exciting for their students. The results of this study highlight the need for continuous research in the area of using social stories to treat social understanding to children with autism. This will hopefully encourage

professionals and parents to use this concept when teaching social understanding to children.

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APPENDIX A

Individual Data Sheets

Social Story Data

Erich appropriately getting someone's attention by saying their name. In some situations Erich might have to say, "excuse me _____".

Date: _____

+ = Occurrence

% of occurrence per day _____

- = Nonoccurrence

% of nonoccurrence per day _____

**Staff please read the Social Story each morning before/after circle time.
Please record a – or + for each opportunity that Erich can appropriately get someone's attention.**

1. _____ 16. _____

2. _____ 17. _____

3. _____ 18. _____

4. _____ 19. _____

5. _____ 20. _____

6. _____ 21. _____

7. _____ 22. _____

8. _____ 23. _____

9. _____ 24. _____

10. _____ 25. _____

11. _____ 26. _____

12. _____ 27. _____

13. _____ 28. _____

14. _____ 29. _____

15. _____ 30. _____

Social Story Data

Eric sharing toys with others while he is playing.

Date: _____

+ = Occurrence

% of occurrence per day _____

- = Nonoccurrence

% of nonoccurrence per day _____

Staff please read the Social Story each morning before/after circle time.

Please record a – or + for each 30 second interval that Eric does or does not share toys with others while he is playing.

COMPLETE TWO TIMES A DAY **(5 minute sessions)**

1st SESSION

2nd SESSION

Seconds Intervals

Seconds Intervals

NOTES

30 1. _____

30 11. _____

60 2. _____

60 12. _____

90 3. _____

90 13. _____

120 4. _____

120 14. _____

150 5. _____

150 15. _____

180 6. _____

180 16. _____

210 7. _____

210 17. _____

240 8. _____

240 18. _____

270 9. _____

270 19. _____

300 10. _____

300 20. _____

1st session – complete first
during program work in the a.m.
2nd session- complete before
or after lunch.

List of toys:

List of toys:

Social Story Data

James raising his hand appropriately during lunch.

Date: _____

+ = Occurrence % of occurrence per day _____
- = Nonoccurrence % of nonoccurrence per day _____

Staff please read the Social Story each morning before lunch time.

Please record a – or + for each opportunity that James raises his hand appropriately with a calm mouth.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

APPENDIX B

Individual Social Stories

Erich's Book



My name is Erich Bennett and I am a big boy! I am 5 years old. I enjoy talking to people. I talk to my mom, dad, and Lucas. I also talk to my friends and teachers.



People like to talk. When we tell people something or ask people something we can say their name and sometimes say, "Excuse me".



Playing with toys is so much fun. If I want to play with a toy I will try to say, "Excuse me _____, can I please play with _____".



I enjoy doing the attendance each morning. I am a SUPER helper! When I go to give Jennifer the attendance I will say, "Excuse me Jennifer here is the attendance".



Sometimes I have to go to the bathroom. I will say "Excuse me _____, can I go to the bathroom please". I then go to the bathroom by myself because I am a big boy.



If two people are talking to one another and I want to talk to them I will try and wait my turn. I can also say, "Excuse me _____".



I am very hungry when it is time for lunch. Eating lunch with my friends and teachers is a lot of fun. When I want something to eat I will say, "Excuse me _____, can I have _____ to eat".



If I need to get by because someone is in my way I will say, "Excuse me _____". I will then wait for the person to make room for me to get by.



I am a big boy for calling people by their name and for saying, "Excuse me". My mom, dad, and teachers are very proud of me.

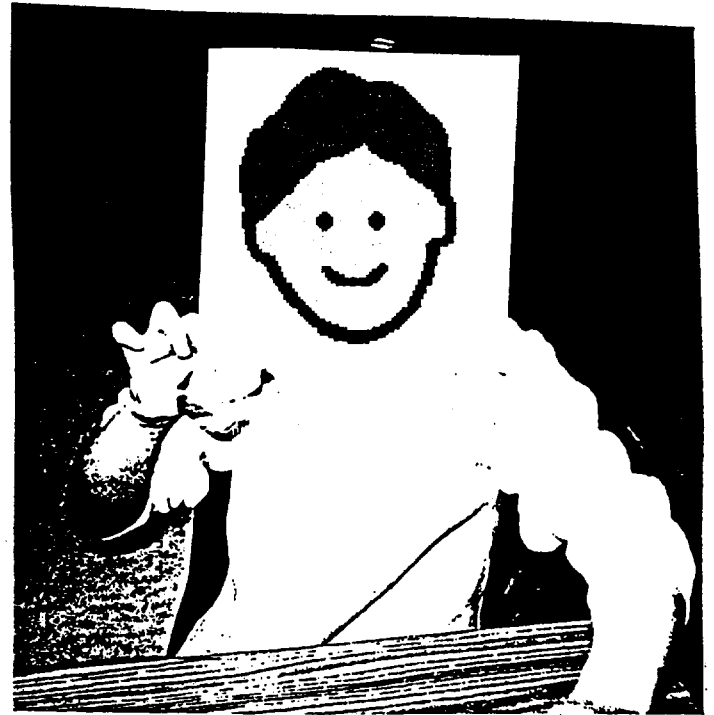


James Learns How to Raise His Hand During Lunch





Hooray, it is time for lunch!! I like eating my lunch with my friends. If I want something to eat I will try to raise my hand. I will also try to raise my hand quietly.



I want my lunch because I am hungry. I will put my hand up quietly and wait for someone to say, "Yes James". I will then put my hand down and say, "Can I have lunch please". I asked for my lunch very nicely and now I am eating.

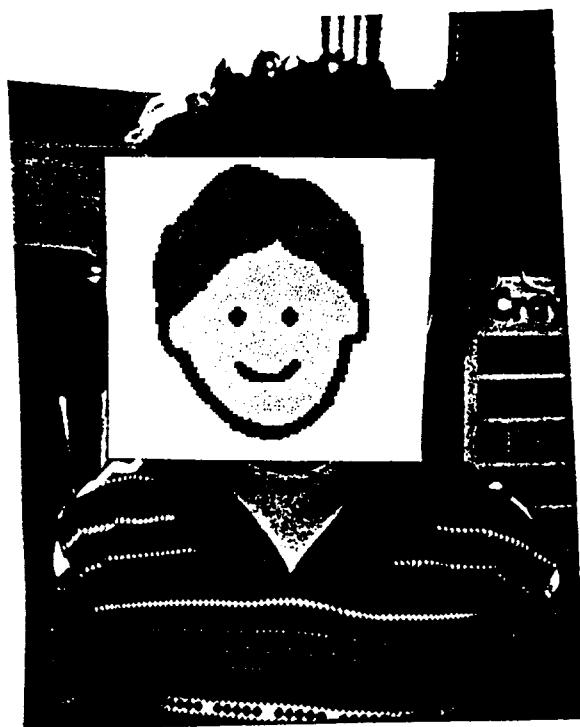


After I eat my lunch I am very thirsty. I like to drink chocolate milk, juice, and water. I will put my hand up quietly and wait for someone to say, "Yes James". I will first put my hand down and then say, "Can I have juice please".



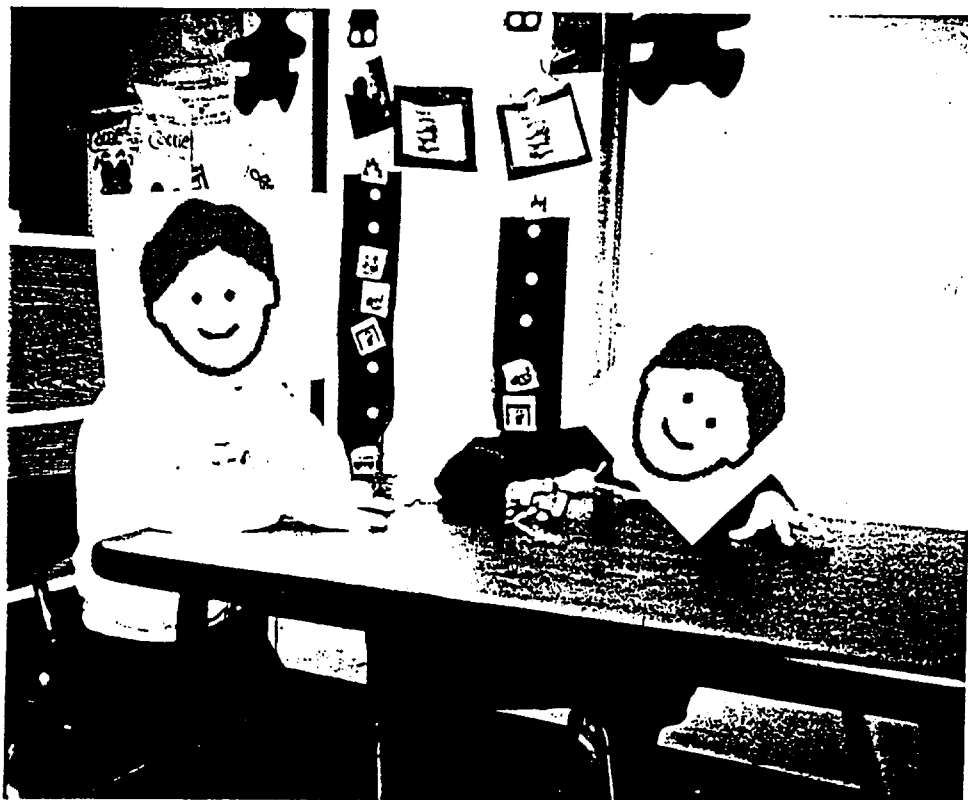
I enjoy eating my snacks. I like to eat fruit, brownies, or cheese puffs. I will get someone's attention by raising my hand quietly. When someone calls on me I will try to put my hand down and say, "Can I have my lunch box please." I then get to eat my yummy snacks.

Eric Learns to Share

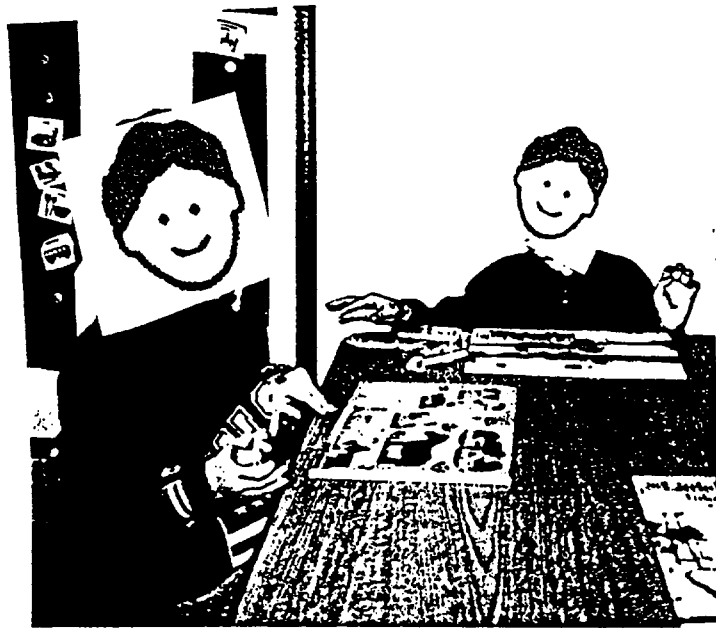




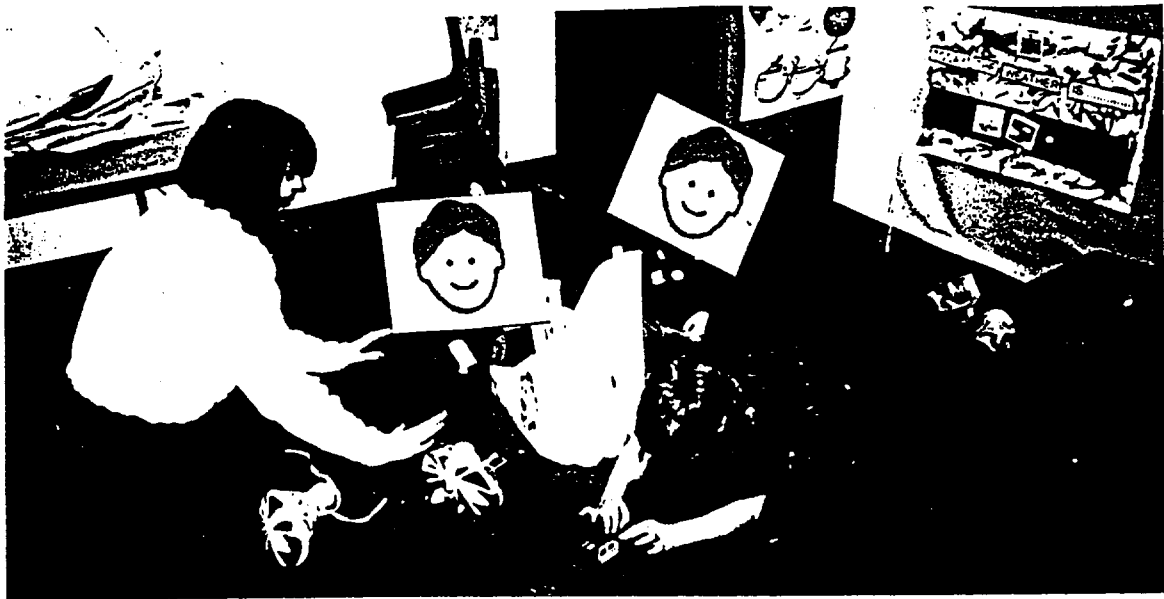
I like to play with toys. When I
play with toys I have fun.



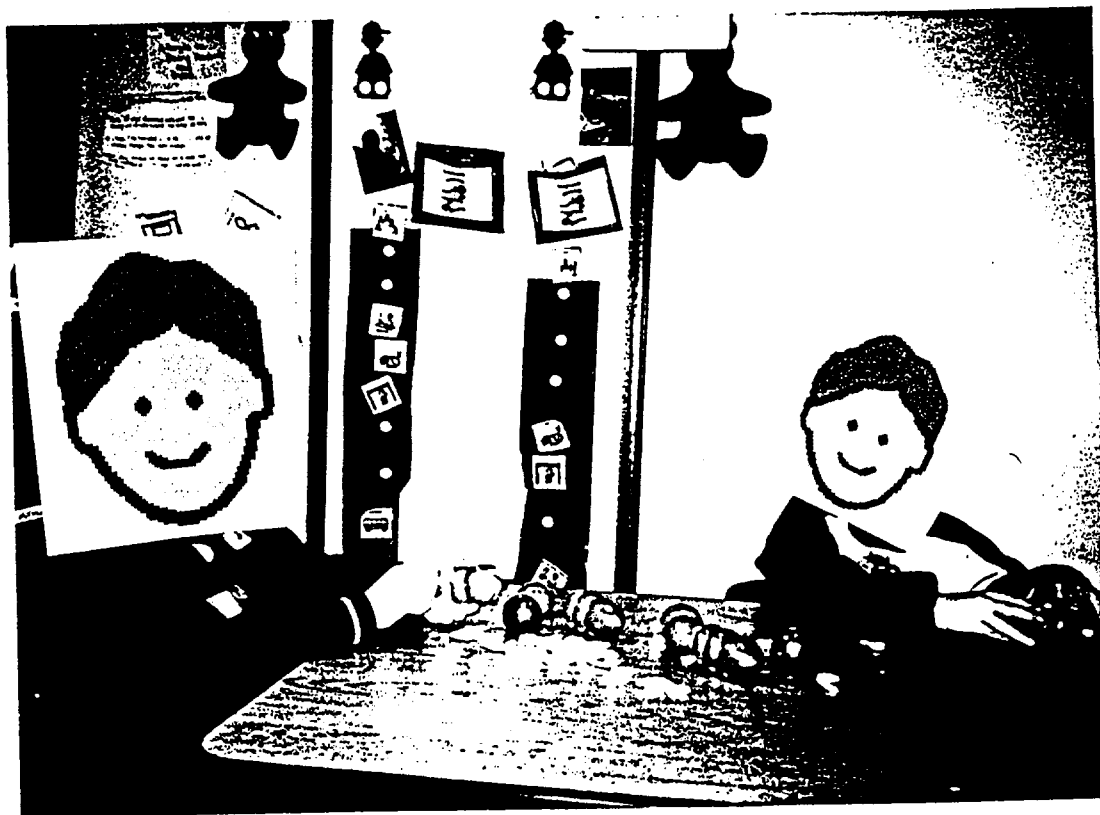
I like to play with zoo animals. Sharing is a nice thing to do. I will try to share the zoo animals with my friends.



I enjoy playing with puzzles. I am sitting in a chair playing like a big boy. When I share with my friends they will be happy. I will share puzzles with my friends.



Playing with cars is a lot of fun.
Everyone gets a turn. Look, we
are all sharing together.



I like playing with cooties. I will try to share the cooties with my friends so everyone has a turn. Sharing and taking turns can be fun. Everyone is happy and we all get to play with toys.