THE USE OF SOCIAL STORIES

WITH INDIVIDUALS WITH AUTISM SPECTRUM DISORDERS

by

Brigid Clark Carbo

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in partial fulfillment of the requirements for the degree of Master of Science in
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ABSTRACT

This multiple case study investigates how professionals use the Social Story technique with individuals with Autism Spectrum Disorders. The results of this investigation indicate that professionals who use the Social Story technique vary the way in which they use this intervention according to the student for whom it is intended. This study details who professionals target for this intervention, and the multiple ways in which they use the Social Story technique with their students. It also illustrates the detailed process that professionals take to create, implement, and evaluate the Social Story. One of the most salient themes present throughout this research is the way in which the professionals collaborate with their colleagues and the families of the students. The professionals describe that this collaboration is imperative in providing a comprehensive intervention that will suite the specific needs of each student.

CHAPTER 1

INTRODUCTION

Carol Gray is the cited pioneer of the use of Social Stories, for students with autism. She developed an intervention that takes a relationship-based approach to working with individuals with autism spectrum disorders. The overall intent of a Social Story is to improve the social understanding for both individuals involved in the relationship; the client will better understand the educator and the educator will better understand the client. This reciprocity will in turn strengthen the relationship. Gray (2000) has stated that "the development of a Social Story is a process that results in a product" (pg. 10). The process consists of considering the needs of and respect for the individual with autism, whereas, the Social Story product consists of a story that describes a situation, concept, or social skill (Gray 2000).

The Social Story intervention was first discussed in a descriptive journal article written by Gray and Joy Garand (1993). Since the publication of this pioneering article, there have been a limited number of studies designed to examine the effectiveness of this intervention (Adams, Gouvousis, VanLue, & Waldron, 2004; Agosta, Graetz, Mastropieri, & Scrugs, 2004; Barry & Burlew, 2004; Bledsoe, Myles, & Simpson 2003; Hagiwara & Myles, 1999; Kouch & Mirenda, 2003; Kuttler, Myles, & Carlson, 1998; Lorimer, Simpson, Myles, & Ganz, 2002; Norris & Dattilo, 1999; Scattone, Wilczynski, Edwards, & Rabian, 2002; Swaggart, Gagon, Bock, Earles,

Quinn, Myles, & Simpson,1995). Upon researching Gray's Social Story intervention and the studies conducted in support of her intervention, the author of this study has found discrepancies in the way in which Gray describes the use of the intervention and the way in which the professionals have implemented the intervention.

Case Study Approach

This multiple case study design was chosen to explore the ways in which professionals use the Social Story technique with individuals with autism spectrum disorders. The methods used to collect the qualitative data included a survey and an interview. The descriptive information obtained through this investigation will provide future researchers with a foundation that they can use to create a study utilizing a more rigorous design.

A total of five cases were explored. Each case consisted of a professional who used the Social Story technique with individuals with autism spectrum disorder. Two of the participants served as a pilot study for this research. The responses from these individuals were used to shape the semi-structured interview protocol as well as to allow the researcher to practice interviewing.

A case study design is suitable for situations with a small number of cases consisting of a large number of variables (de Vaus, 2001). Babbie (2004) asserted that what constitutes a case study is the limited amount of knowledge surrounding a particular topic. Thus far, the research conducted on the topic of Social Stories has only addressed treatment efficacy. With a case study design the researcher can gather

information that has not yet been explored. In the case of the present investigation, a more comprehensive depiction of how professionals use the Social Story technique has been identified.

Research Questions

According to Wolery and Dunlap (2001), "research questions can come from a variety of sources such as problems faced in practice, experience, theory, or issues raised by previous research (p. 85)." This research study was conceptualized through an analysis of the issues raised by previous Social Story research. Through analysis of the literature, it was evident that there have been variations in the way in which Social Stories have been implemented by professionals. These studies show variations from the guidelines set by creator, Gray (2000; 2004). In order to mediate the conflicting information, this study will detail the ways in which professionals define, implement, and assess the use of Social Stories with their clients. This study had four research questions:

1. Given the apparent variability in the use of Social Stories with students with autism spectrum disorder, who are professionals targeting for this intervention?
2. What are the primary functions of using Social Stories with students with autism spectrum disorder?
3. What is the process by which professionals create and implement Social Stories with students with autism spectrum disorder?

4. What kinds of professional development opportunities exist for professionals to learn about and become trained in the use of Social Stories with students with autism spectrum disorder?

To date there have been approximately fourteen studies conducted about the effectiveness of Social Story intervention with individuals with autism spectrum disorder. This study differs from the others in that this study was designed to examine the perceptions of the professionals who use this intervention.

The data collected about the use of the Social Story technique with individuals with autism spectrum disorder, were analyzed in two different manners. First, this information was analyzed through the use of a within-case analysis. Second, this information was analyzed using a cross-case analysis. It is hoped that this exploratory study will prompt further qualitative and quantitative studies on the use of Social Stories.

CHAPTER 2

LITERATURE REVIEW

Autism Spectrum Disorders

Autism Spectrum Disorder is the most commonly used term that describes a series of disorders that are characterized by impairments in communication, social interactions, and repetitive behaviors. The fourth edition text revised of the American Psychiatric Association's (2000) Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) refers to Autism Spectrum Disorder as Pervasive Developmental Disorder (PDD). PDD is not a diagnosis; it is an umbrella term that encompasses the disorders included in this grouping including: autistic disorder, Asperger's disorder, Rett disorder, childhood disintegrative disorder and pervasive developmental disorder-not otherwise specified (PDD-NOS) (American Psychiatric Association, 2000).

Rett disorder and childhood disintegrative disorder are rare in comparison to autistic disorder and Asperger's disorders. Rett disorder primarily affects females. It is characterized by typical development and growth during the first five to thirty months of life followed by a loss of skills and retarded growth. Individuals with Rett disorder have poorly coordinated gait and/or trunk movements along with stereotypic hand movements (American Psychiatric Association, 2000).

Childhood disintegrative disorder is characterized by apparently normal development for first two years of life, followed by a loss of skills an all domains, including communication, social, and play. This loss of skills occurs prior to age ten (American Psychiatric Association, 2000).

PDD-NOS encompass cases where there are impairments of social interaction, communication, and/or stereotyped behavior patterns or interest, but when full features for autism or another explicitly defined PDD are not met. There are no specific diagnostic criteria for PDD-NOS (American Psychiatric Association, 2000).

Asperger's disorder and autistic disorder are more common than the other Pervasive Developmental Disorders. These disorders have been well defined. The characteristics of these disorders are as follows:

Asperger's Disorder

A. qualitative impairment in social interaction, as manifested by at least 2 of the following:
    1) marked impairment in the use of multiple non-verbal behaviors such as eye to eye gaze, facial expression, body postures and gestures to regulate social interaction
    2) failure to develop peer relationships appropriate to developmental level
    3) lack of spontaneous seeking to share enjoyment, interests, or achievements with people
    4) lack of social or emotional reciprocity

B. Restricted repetitive and stereotyped patterns of behavior, interests and activities as manifested by one of the following:
    1) encompassing preoccupations of with one or more stereotyped and restricted patterns
    2) of interest that is abnormal either in intensity or focus
    3) apparently inflexible adherence to specific, non-functional routines or rituals
    4) stereotyped and repetitive motor mannerisms
    5) persistent preoccupation with parts of objects

C. the disturbance causes clinically significant impairments in social, occupational or other important areas of functioning
D. There is no clinically significant general delay in language
E. there is not clinically significant delay in cognitive development or in the development of age- appropriate self help skills, adaptive behavior, and curiosity about the environment in childhood
F. Criteria are not met for another PDD or Schizophrenia (American Psychiatric Association, 2000 p. 84).

Autistic Disorder

A. a total of six (or more) items from (1), (2), and (3), with at least two from (1) and one each from (2) and (3):
    1) qualitative impairments in social interaction, as manifested by at least two of the following
        - marked impairment in the use of multiple non-verbal behaviors such as eye to eye gaze, facial expression, body postures, and gestures to regulate social interaction
        - failure to develop peer relationships appropriate to developmental level
        - lack of spontaneous seeking to share enjoyment, interests, or achievements with others
        - lack of social or emotional reciprocity

    2) qualitative impairments in communication as manifested by at lease one of the following:
        - delay in or total lack of, the development of spoken language
        - in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
        - stereotyped or repetitive use of language or idiosyncratic language
        - lack of varied, spontaneous make -believe play or social imitative play appropriate to developmental level

    3) restricted repetitive stereotyped patterns of behavior, interests and activities, manifested by at least one of the following:
        - encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
        - apparently inflexible adherence to specific, non-functional routines or rituals,
        - stereotyped and repetitive motor mannerisms
        - 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. The disturbance is not better accounted for by Rett's disorder or Childhood Disintegrative Disorder (American Psychiatric Association, 2000 p. 75).

Leo Kanner M. D. (1943) published the first article to describe what he called autism. In this case study that he discussed the commonalities between the first 11 cases of autism brought to his attention. Each child was referred to Kanner at John's Hopkins University by a family doctor, parent, or educator. Kanner described the history of each of the children and the behavior which he observed. Through many observations, Kanner surmised that these individuals were not mentally retarded nor were they schizophrenic as others had previously characterized them. Kanner described autism as an affective disorder that masked one's cognitive abilities. Throughout each of the cases he noted three defining characteristics of autism: stereotypic behaviors, lack of social interaction, and deficits in the ability to communicate. Throughout the past 60 years, these criteria have continued to be used to diagnose autism. This holds true even today in the DSM-IV-TR (American Psychiatric Association, 2000).

The identification of autism spectrum disorders is increasing. Volkmar, Lord, Bailey, Schultz, and Klin (2004) reported that between 1966 and 1991 approximately 4.4 per 10,000 individuals had an autism spectrum disorder, and between 1992 and 2000 approximately 12.7 per 10,000 individuals had an autism spectrum disorder. Currently, it is believed that autism occurs in approximately one-in-500 to one-in-1,000 live births (National Institute of Child Health and Human Development, 2004).

Given that autism is on the rise, there is a growing need for interventions to meet the distinct needs of these children. Due to the diverse nature of autism, many of the current approaches have been studied through the use of single case designs. Wolery and Dunlap (2001) stated that, "these designs are ideal for evaluating interventions when the independent variables (interventions) can be implemented over time, when individual variation may be an important consideration, and when too few participants are available to make comparisons across groups" (p. 85). The single case design is used on an individualized basis; therefore, the information collected in one study is cannot be generalized to the group. With this said, the interventions used with individuals with autism have not been deemed as scientific, evidence-based practices.

Odom, Brown, Frey, Karasu, Smith-Canter, and Strain (2003) provided a meta-analysis of single subject design research. The researchers noted a movement to use evidence-based practices (Shavelson & Towne, 2002; as cited by Odom, et al., 2003). In this study, the researchers assigned a level of evidence for practice to the previously studied techniques. Adult-directed interventions and differential reinforcement of desired behavior were labeled well established techniques. Peer mediation, visual supports, self-monitoring, and family involvement were labeled as emerging and effective techniques. Lastly, positive behavior support, videotaped modeling, and moderating characteristics of tasks were considered probably effective techniques. As one can see, more research needs to be conducted on the efficacy of educational techniques for individuals with autism.

The commonly used interventions for individuals with autism spectrum disorders include applied behavior analysis, verbal behavior, picture exchange communication system (PECS), discrete trial, Treatment and Education of Autistic and related Communications Handicapped Children (TEACCH), relationship development intervention (RDI), and floor time.

The interventions applied behavior analysis, verbal behavior, and discrete trial are behavioral in nature. These interventions are used to teach new behavior or alter existing behavior through the use of reinforcement. Applied behavior analysis is based on learning theory (Miller, 2002). This intervention focuses on antecedents, behavior, and consequences. Through the manipulation of antecedents and consequences, behavior can be changed (Schoen, 2003). Verbal behavior relies on the same principals used in applied behavior analysis; however it focuses on verbalizations and communication. The picture exchange communication system (PECS) is an augmentative communication system. This intervention is based on verbal behavior. The PECS uses picture icons to represent words. Children are taught how to make requests and communicate their needs through the exchange of the pictures. Discrete trial is also based on applied behavior analysis. This intervention teaches individuals new skills and information through the delivery and repetition of small units of information (Smith, 2001).

The TEACCH intervention has been adopted by the state of North Carolina as its primary mode of education for individuals with autism spectrum disorders. TEACCH focuses on the use of a structured teaching, this is accomplished by

organizing the environment, developing schedules and work systems, making expectations clear and explicit, and using visual materials to allowing people with autism to use these skills independently of direct adult prompting and cueing. TEACCH focuses on individual's strengths and interests and develops the individual by building upon these strengths (Van Bourgondien, Reichle, & Schopler 2003).

Floor time and RDI are interventions based on building relationships. In floor time the individual with autism leads the interaction while the adult joins the individual in what he/she is doing (Stacey, 2003). It is presumed that by joining the individual in the behavior the child can be drawn out of his/her world. RDI also focuses on the social deficits in individuals with autism spectrum disorder. Dr. Gutstein researched typical relationship development and the development of relationships for individuals with autism, and he in his colleagues found six core deficits in individuals with autism spectrum disorders. These deficits include:

- Emotional Referencing- The ability to use an emotional feedback system to learn from the subjective experiences of others.
- Social Coordination- The ability to observe and continually regulate one's behavior in order to participate in spontaneous relationships involving collaboration and exchange of emotions.
- Declarative Language- Using language and non-verbal communication to express curiosity, invite others to interact, share perceptions and feelings and coordinate your actions with others.
- Flexible Thinking- The ability to rapidly adapt, change strategies and alter plans based upon changing circumstances.
- Relational Information Processing- The ability to obtain meaning based upon the larger context. Solving problems that have no "right-and-wrong" solutions.
- Foresight and Hindsight- The ability to reflect on past experiences and anticipate potential future scenarios in a productive manner (Relationship Development Intervention, 2005)

Dr. Gutstein has created an intervention to help individuals with autism to develop and build these skills (Relationship Development Intervention, 2005).

Social Skills and Autism Spectrum Disorders

As previously stated, impairments in social interaction are a defining characteristic of individuals with autism. Weiss and Harris (2001) provided a detailed list of social impairments found in individuals with autism: difficulties orienting to social stimuli, using gaze to communicate, establishing joint attention, initiating interaction, understanding facial expressions, responding to another's distress, appreciating conventional humor, playing spontaneously, and initiating pretend play.

The social impairments observed in individuals with autism have been attributed to impairments in neurological functioning. Waterhouse and Fein (1997) summarized the four schools of thought that have been devised to explain the social impairments in individuals with autism.

> First, social impairments are assumed to be a secondary effect of a primary deficit in attention, arousal, sensory function, pain system function, memory, executive function, or information processing. Second, impairments in social cognition is assumed to be the primary deficit. Third, impairment in affective sociability and impairment in social cognition together are assumed to be the primary deficit. Fourth, social impairments are assumed to be the most salient set of deficits (p.901).

The theoretical rationale used to create and support the Social Story intervention supposes that the social deficits in the child with autism are caused by a combination of the first three points (Gray & Garand, 1993; Gray, 2000; Gray, 2004).

Social Stories

In 1993, Gray and Garand published the first article on the use of Social Stories with children with autism spectrum disorders. Gray and Garand provided a detailed description of what Social Stories are and how they are to be used. This information served as a catalyst for researchers to study the efficacy of this intervention. According to Gray, a Social Story may be developed to teach social awareness. The story can, "describe a situation, skill or concept in terms of relevant social cues, perspectives, and common responses" (Gray, 2004 p. 10). At a conference (2004) Gray spoke on the topic of social understanding in children with autism.

She began by discussing the definition of the word "social." In the dictionary each definition of the word social required more than one person. Gray proceeded to explain that, if the student with autism has problems interpreting the social world then both the student and those interacting with the student are seen as part of the problem, not just the individual with autism. At the same time, we can provide the individual with the necessary supports in order for the individual to make sense of a situation, concept or skill. The intention of using a Social Story is to improve the social understanding for both individuals involved in the client/educator relationship. The client will better understand the educator and the educator will better understand the client. This reciprocity will strengthen the relationship. Gray (2000) stated that "the development of a Social Story is a process that results in a product" (p. 10). The

process consists of considering the needs of and respect for the individual with autism; whereas, the Social Story product consists of a story that describes a situation, concept, or social skill (Gray 2000).

The following is a sample Social Story written by Gray (2000):

> I usually go to music class second hour. We sing songs in music. One thing is very important in music. It is important to sing at the right volume. Volume is a word that means how loud someone sings. One way to sing at the right volume is to sing so I can hear the person sitting next to me. Sometimes, one person in the choir sings a SOLO. That means, that person sings alone. I can tell when it is time for me to sing a solo. I will have the microphone. All other times, I sing so I can hear the person singing next to me. When people listen to a choir, they want to hear all the voices together (p. 54).

Over the years Gray has explicitly defined the components of the Social Story technique. She (2004) developed a checklist that incorporates all of the components that a Social Story should include. This checklist is comprised of ten components including:

- The story shares social information with an overall patient and reassuring quality
- The story has an introduction that identifies the topic, a body that adds details, and a conclusion that reinforces and summarizes the information
- The story provided answers to "wh" questions
- The story is written in the first person perspective
- The story uses positive language

- The story is comprised of the specific types of sentences that make up a Social Story
- The story adheres to the ratio
- The story matches the ability and interests of the audience and is literally accurate
- The story uses meaningful illustrations to enhance the meaning of the text
- The title of the story meet all of the applicable criteria

Gray's protocol for developing effective Social Stories has evolved since her original work in the early 1990's. In their original article, Gray and Garand (1993) discussed the three types of sentences that can make up a Social Story: descriptive, perspective, and directive.

A descriptive sentence describes the facts and is free from assumptions ("We sing songs in music."). A perspective sentence identifies the thoughts, feelings, and or action of others ("When people listen to a choir, they want to hear all the voices together."). Lastly, the directive sentence is used to direct the individual's behavior ("I can tell when it is time for me to sing a solo. I will have the microphone").

Throughout her research Gray has contributed four additional types of sentences: affirmative, control, cooperative, and partial. An affirmative sentence consists of commonly held opinions of others ("If I ran in the hallway I could trip, fall, and get hurt."). A control sentence is written by the student who will be using the Social Story. This sentence is used to assist the student recall the meaning of the story

("When my teacher says remember to walk through the halls, I can think of Ash walking through my *Pokemon* game."). The idea of the cooperative sentence was suggested to Gray by Dr. Demetrious Haracopos of Denmark (Gray, 2004). This type of sentence informs the student of the specific ways that others will help them achieve their goal ("Before I go into the hall Ms. Smith will remind me to walk."). Partial sentences are designed much like fill in the blank questions; they can be descriptive, perspective, or directive. These sentences are used to help the student make predictions ("I will try to _____ through the hallway."). Control, cooperative, and partial sentences are designed to be used with individuals who are functioning at a higher cognitive level (Gray, 2000).

Aside from the specific types of sentences, Gray has developed a number of rules that every Social Story should follow. A Social Story must maintain the 1:2-5 ratio of one directive sentence to every two to five descriptive, perspective, affirmative, control, or cooperative sentences (Gray & Garrand, 1993; Gray, 2000). This ratio was created to ensure that Social Stories were more descriptive in nature than commanding. Just recently this rule has been modified to 1: ≥2; one directive or control sentence to every two or more descriptive, perspective, affirmative, or cooperative sentences (Gray, 2004).

The story should be written in the first person as this tactic helps individuals internalize the information. If the story is written for a young child or an individual who has difficulty using pronouns, the story should be written in the first and third person interchangeably. This will help the individual relate their name to the pronoun.

Due to the literal nature of individuals with autism spectrum disorder, Gray (2004) cautions that stories should use words such as most, usually, and sometimes rather than all and always. This will allow for exceptions and changes in routines.

Each story is designed to answer "wh" questions: who, what, when, where, and why. Positive language should be used in the construction of Social Stories, and the focus should be on desired behaviors rather than undesirable behaviors (Gray & Garand, 1993; Gray, 2000, 2004).

Barry and Burlew (2004) noted that the basic components of the Social Story intervention are based on commonly used practices in the field of educating individuals with autism, including repetition, modeling, self-monitoring, visual aids, and priming.

Social Story Research

The effectiveness of Social Stories has been reported in at least fourteen peer reviewed journal articles. According to the research, the use of Social Stories has been effective in decreasing inappropriate behaviors; (Agosta, Graetz, Mastropieri, & Scrugs, 2004; Adams, Gouvousis, VanLue, & Waldron, 2004; Bledsoe, Myles, & Simpson 2003; Kouch & Mirenda, 2003; Kuttler, Myles, & Carlson, 1998; Lorimer, Simpson, Smith Myles, & Ganz, 2002; Norris & Dattilo, 1999; Scattone, Wilczynski, Edwards, & Rabian, 2002; Swaggart, et al.,1995) increasing appropriate behavior (Agosta, Graetz, Mastropieri, & Scrugs, 2004; Barry & Burlew, 2004; Bledsoe, Myles,

Simpson, 2003; Hagiwara & Myles, 1999; Swaggart, et al.,1995), and teaching novel behavior (Hagiwara & Myles, 1999; Swaggart et al., 1995).

Due to the complex nature of autism spectrum disorders and the individualization employed by each Social Story, these studies have been conducted through the use of single subject research design. Researchers (e.g., Norris & Dattilo, 1999; Swaggart, et al., 1995) used an AB research design to test the effects of Social Stories. The AB design is the simplest quasi-experimental approach to single case design, and it provides weak correlated results (Tawney & Gast, 1984).

In a study that uses an AB design, the A phase consists of the baseline information gathered on a target behavior. While during the B phase, the Social Story was implemented and data were collected on the targeted behavior in order to determine the effectiveness of the intervention. Swaggart, et al. (1995) published the first article encompassing the results of the use of Social Stories with children with autism. The researchers used the AB design with three children. They operationally defined the target behaviors for each child and reported the results in terms of percentages during the baseline and the treatment phases. The researchers recorded data on the behavior that they desired as well as the undesirable behaviors that corresponded with the desired task. This illustrated a comprehensive representation of the entire behavior change since one is able to see that there was an increase in the desired behavior and a decrease in the undesired behaviors. The study conducted by Norris and Dattilo (1999) focused on the use of a Social Story with one child in one situation. The researchers analyzed the appropriate interactions, inappropriate

interactions, and the absence of interactions for a child with autism and her peers during lunch time. After 18 days of treatment they found that appropriate interactions remained constant, inappropriate interactions decreased, and the absence of interaction increased.

The research conducted by Kouch and Mirenda (2003) used an ABA research design. The ABA design can develop a causal relationship. However, the ABA design is an experimental design and exerts more control than the AB design. Researchers believe that this type of design should not be used to evaluate intervention effectiveness due to the ethical implications for ending an experiment in a baseline condition (Tawney & Gast, 1984). The results of the Kouch and Mirenda (2003) study indicated that all three subjects responded well to the use of the Social Story. The researchers discussed the problem situations which they were going to analyze and target. However, the behaviors were not operationally defined in the article and the graph depicting the decrease in inappropriate behavior did not specify what behaviors were being targeted. The poor design of this research leaves the reader with many questions about its accuracy.

A reversal replication design was employed in four studies (Lorimer, Simpson, Smith Myles, & Ganz, 2002; Adams, Gouvousis, VanLue, & Waldron, 2004). The ABAB design is most commonly used with research that focuses on behavior change. This method is effective because the reversal allows for more experimental control (Tawney & Gast, 1984). Lorimer, et al. (2002) used a Social Story in a child's home setting as a means to reduce the behavior that preceded tantrums. The researchers

reported data on the frequency of interrupting vocalizations as a precursor to tantrums, as well as the frequency of tantrums. It was evident that the implementation of the Social Story decreased the precursor to tantrums as well as the tantrums during treatment phases B1 and B2.

Adams, et al. (2004) also used the Social Story in the home setting. The researchers targeted homework time as the problem situation. Their overall goal was to increase the child's help seeking requests. The researchers did not report data on requests for help, instead they reported on the decrease of undesired behaviors that occurred during homework time, including: crying, screaming, falling out of chair, and hitting. Although there were spikes in the undesired behavior during the two treatment phases, the number of inappropriate behaviors decreased across all four targeted behaviors. However, it was not made clear if the child supplemented the undesirable behaviors with requests for help.

A multiple baseline design is a data collection technique used to demonstrate treatment effects. The use of multiple baselines can be used across individuals, settings, or behaviors. This method of data collection exerts experimental control without the use of reversal to baseline (Martin & Pear, 2003). The multiple baseline method has been used in five studies examining the effectiveness of the Social Story technique (Barry & Burlew, 2004; Hagiwara & Myles, 1999; Scattone, Wilczynski, Edwards, & Rabian, 2002; Thiemann & Goldstein, 2001). The study conducted by Barry and Burlew (2004), consisted of an ABCD multiple baseline design across two individuals with the same behavioral objectives. The behaviors in which the

researchers recorded data were choice making and duration of appropriate play. The two children received the same intervention consisting of the exact same Social Stories. Throughout the intervention, three different stories were used to educate the children how to play. Although both children made progress, child "A" was much more responsive to the intervention.

Hagiwara and Myles (1999) used multiple baselines across three different settings. In conjunction with the data presented, the researchers also included anecdotal information for each trial to describe the details that are not visible through the graphs. The researchers created the story using the *Hypercard* computer program; as a result, the computer, rather than the teacher disseminated the information to the children. According to Gray's standards this could present a problem. The rationale behind using a book is that it can be readily accessed as needed. If the child using this system was at home or in the community, he or she would not have access to information contained in the story. On the contrary, the computer program read the story to the child, making it consistent each and every trial, thus reducing the possibility of the student misinterpreting the information from the instructor. The same story was used to explain the task to the child prior to encountering the target setting.

Scattone, et al. (2002) created Social Stories for three children who presented disruptive behaviors. The researchers paid particular attention to the rules established by Gray (2000) and ensured that each story met all of the criteria. The research design for this intervention consisted of an AB multiple baseline design. Inter-rater reliability

was conducted to increase the accuracy of data collection. Data were collected during a 20-minute period, three days per week. Each participant, Kenny, John, and Howard, demonstrated a reduction in their disruptive behavior. Kenny's behavior decreased from a mean of 50% of intervals during baseline to a mean of 4.6% of intervals during intervention. John's behavior decreased from a mean of 66.9% of intervals during baseline to a mean of 18.25% of intervals during intervention. Howard's behavior decreased from a mean of 18.5% of intervals during baseline to a mean of 5.1% of intervals during intervention.

Thiemann and Goldstein (2001) conducted a study that incorporated Social Stories, pictorial and written text cues, supplemental video modeling, and peer modeling. This study targeted a series of four behaviors (securing attention, initiating comments, initiating requests and initiating contingent responses) for five students with autism, Dan, Greg, Casey, John, and Ivan. The study was conducted using multiple baselines across behaviors. Experimental control was demonstrated over the first three target behaviors for Dan, Greg, and Casey, and experimental control was demonstrated over the first two behaviors for John and Ivan. This complex study demonstrated effective treatment outcomes for the students; however, it is difficult to determine exactly which strategy(s) were effective.

Gray's approach has been developed throughout her long career with children with autism. She has created the guidelines for this intervention based on her experience. According to Scattone, et al. (2002) research should begin by determining

the effectiveness of this treatment. Once this intervention is established, researchers should systematically test each rule in order to determine its relevance.

Gray and Garand (1993) state that Social Stories should be use with individuals who present in the mild to moderate classification of autism or Asperger's Syndrome. It is not specified if the intervention will be effective for individuals with a more severe form of autism and/or co-morbid disorders. A number of researchers have conducted studies that test the use of Social Stories with individuals with severe autism (Barry & Burlew, 2004; Swaggart, et al., 1995; Thiemann & Goldstein, 2001). The research showed positive results for children with this classification. Only one study examined the use of Social Stories with an individual with a co-morbid diagnosis (Kuttler, et al., 1998). This child was diagnosed with autism, fragile X syndrome, and intermittent explosive disorder. He too responded well to the Social Story intervention. Given that autism may be present along with other disorders, such as developmental language disorders, mental retardation, Attention Deficit Hyperactivity Disorder (ADHD), Obsessive Compulsive Disorder (OCD), personality disorder, schizophrenia, reactive attachment disorder and or social phobias (Towbin, 1997). It is important to discover if this intervention is effective for individuals with a co-morbid diagnosis.

Gray (1993 & 2000) stresses the importance of the Social Story ratio in her descriptive articles. However, the Social Story ratio has not been maintained across all of the research studies (Adams, et al., 2004; Bledsoe, Myles, & Simpson, 2003; Kuttler, et al., 1998; Lorimer, et al., 2002; Scattone, et al., 2002). It was worth noting

that the interventions that did not meet the standard of the ratio demonstrated comparable results to those that did meet the ratio standard. This raises questions about the necessity of the Social Story ratio.

In the descriptive literature provided by Gray, she does not write about of the use of Social Stories in conjunction with other techniques. However, a number of studies used multiple methods. Barry and Burlew (2004) discussed the multiple levels of prompting used in conjunction with the Social Story. Hagiwara and Myles (2003) created their Social Story about hand washing through a computer program called *Hypercard*. The computerized story contained visual cues as well as a recorded voice that read the story to the child. The child was also prompted through the hand washing routine after listening to the story. Gray believes that the Social Story should be accessible to the child at all times. If the story is contained on the computer it may not be accessible to the child at all times.

Gray does not indicate if reactive strategies should be in place along with the Social Story intervention. In the case that the Social Story is used to decrease the occurrence of an inappropriate behavior, how should the individuals who are working with the child respond to the child when he/she presents the undesired behavior? This concept was only addressed with one of the participants in the Swaggart, et al. (1995) study. In this case the Social Story was use to decrease aggressive behavior in a young girl. The Social Story was used daily along with a cost response system, for when the child exhibited aggressive behavior she would lose tokens.

Theoretical Rationale

Gray (2002; 2004) cites social cognitive theory as the primary theoretical framework from which she developed the Social Story technique. However, from 1993 to 2000, Gray explained her technique through the theory of mind framework. This is the understanding of mental processes, including one's own or another's emotions, perceptions, and thoughts. It is thought that the social dysfunction seen in individuals with autism is due in part to their inability to take the perspective of another person, or a lack of a theory of mind (Miller, 2002). Gray developed Social Stories to be a relationship based intervention. The intent of a Social Story is to improve the social understanding for individuals with autism and facilitate the development of a theory of mind by describing to the specific individual social circumstances that he/she is not aware of.

Currently, Gray (2004) notes that individuals with autism have a deficit in a series of cognitive processes including, joint attention, perspective taking, theory of mind, central coherence, and executive function. Joint attention is the process in which an individual engages another individual in eye contact in order to share something in the environment. For example, a child will look at his mother, then observe his toy, then attempt to reconnect with this mother. Joint Attention is typically established in the first year of life. Perspective taking is a process in which one must perceive the thinking and emotion of others. Theory of Mind is the understanding of the mental processes of one's self and others. In typically developing children this process is developed between three and four years of age. In

children with autism this process may never fully develop. Central Coherence is the ability to read environmental cues, process these cues together and summarize what is taking place and acting appropriately in a given situation. Executive Functioning is the brain's ability to organize, prioritize and sequence information. In order to educate individuals with autism about the social world in which they live these processes must be strengthened and/or explained to the individual (Gray, 2004).

Traditional social learning theory focuses on the interaction between the behavior and the environment. Bandura (1986) adapted this model to create the social cognitive theory. This was achieved through the addition of the component, cognition and other personal factors. With this Bandura introduced Triadic Reciprocal Causation.

The triadic reciprocal causation model (seen in figure 2.1) describes the interaction between observed behavior, cognition and other personal factors, and environmental factors interact to facilitate learning. Observed behavior can occur through multiple mediums, such as direct observation, media, and books. Cognition and other personal factors refer to one's beliefs, motives, intentions, and personality. It also denotes the previously acquired knowledge of an individual. Bandura, explained that individuals must have a prior schema in order to successfully learn a new task. For example, a child will not be able to learn to read a sentence without the ability to recognize letters. Environmental factors refer to the situation in which the observation takes place. These three factors act and react with one another to facilitate the individual's ability to learn (Green & Piel, 2002).

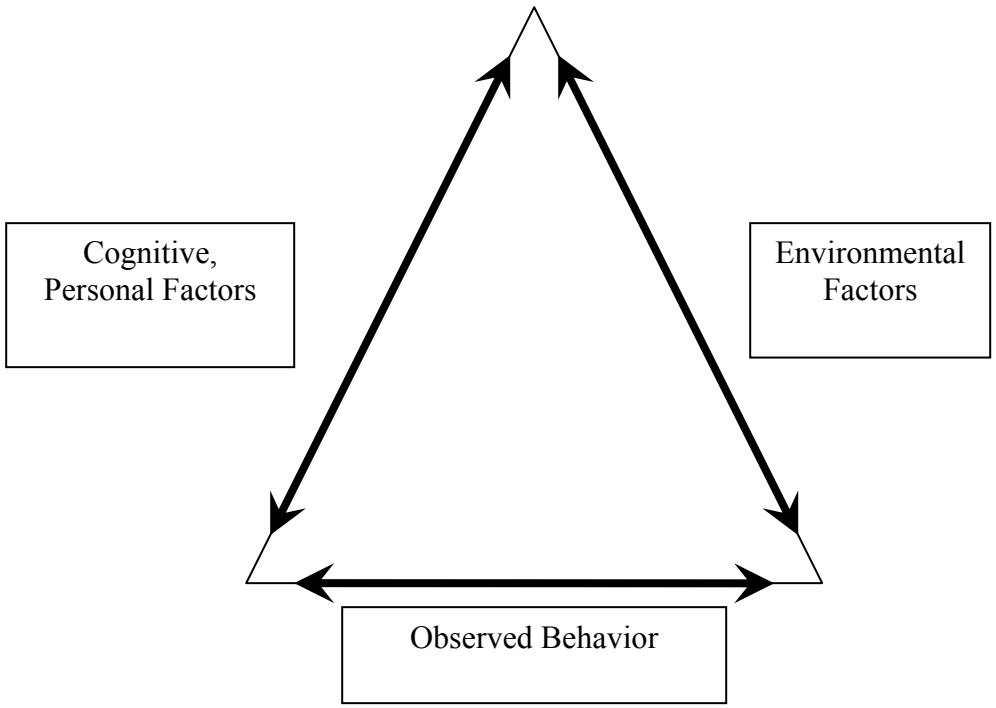

Figure2.1 Bandura's Triadic Reciprocity Causation

CHAPTER 3

METHOD

Research Design and Rational

A multiple case study design was chosen to examine how professionals use the Social Story technique with individuals diagnosed with an autism spectrum disorder. These cases consisted of five participants, two of whom served in the pilot study for this research. The methods used to collect the qualitative data included a survey and an interview.

Use of a Case Study Approach

A multiple case study approach has been employed to examine how professionals use the Social Story technique with individuals with autism. A case study is an in-depth analysis of a single instance of some social phenomenon (Babbie, 2004). Yin (2003) stated that the case study is best used when the researcher is asking a 'how' or 'why' question. The case study also allows the researcher to examine a particular situation comprehensively.

A case study design is suitable for situations with a small number of cases consisting of a large number of variables (de Vaus, 2001). Babbie (2004) asserted that what constitutes a case study is the limited amount of knowledge surrounding a particular topic. Thus far, the research conducted on the topic of Social Stories has

primarily addressed treatment efficacy. With the case study design the researcher can gather information that has not yet been explored. In the case of the present investigation, a more comprehensive depiction of how professionals use the Social Story technique will be identified.

Merriam (1998) described one possible use of the case study as a means to gather information and improve practice in a field. Within the context of this research, the specific areas of interest include the students who are targeted for this intervention, the utility of this intervention, the components of this intervention as well as the training and collaboration that occurs on the part of the professional. The information gathered through this research study will inform the current state of practice and program development for individuals with autism. With the information gathered, the researcher will be able to make recommendations for future study of the use of the Social Story technique.

Sample

In order to conduct a case study the case must be defined. de Vaus (2001) stated that "a case is the 'object' of study" (p.220). Stake (1995) elaborated further by defining a case as "a specific, a complex, functioning thing" (p. 2). Merriam (1998) described a case as a system that is contained by boundaries.

For this study, individuals were eligible to participate if they were professionals who use the Social Story technique with individuals with an autism spectrum disorder. The term professional is defined as a person who creates and

implements Social Stories with individuals with an autism spectrum disorder. In order to be identified by the title 'professional' the individual must fit the following criteria, the individual must have had at least five years experience working with individuals with an autism spectrum disorder, at least five years experience using the Social Story technique and have a Master's degree.

The researcher made use of purposive sampling in order to obtain the five participants for this multiple case study. Stake (1995) describes that sampling in a case study is different from sampling procedures in other research methods in that variety within the sample is important in obtaining results rather than specifically defined common attributes. Likewise, Creswell (1997) believes that one should gain a variety of perspectives about the problem, process, or event. In order to obtain a variety of perspectives about the use of Social Stories, professionals were recruited from three different states located on the east coast of the United States. These professionals also hold a variety of positions including teacher, speech therapist, occupational therapist, and behavior analyst. The researcher also made use of a snowball sample technique. A snowball sample is a technique through which, each person interviewed is asked to suggest additional people who would be suitable for an interview on the topic (Babbie, 2004).

The purposive sample consisted of three perspective participants who were identified prior to the start of the study. Each of the participants was a past colleague of the researcher. At the start of the study the three participants were contacted. Two of the participants agreed to take part in the study, while the third did not meet the

criteria for the study. The three perspective participants were asked to refer other individuals for this study, utilizing the snowball sample technique. A total of four names were generated. Two of the four individuals met the criteria for the study and agreed to participate. In search of the final participant, the researcher contacted three personal contacts, a past Professor, a friend, and a classmate. This Professor was contacted given that he works as a consultant to teachers who work with individuals with severe disabilities and teaches undergraduate and graduate courses on methods for student with disabilities. This friend was contacted for the reason that she was once a paraprofessional in a school that serves students with autism spectrum disorders. Finally, this classmate was contacted because his wife works with individuals with autism spectrum disorder and he was able to obtain contact information from her for the researcher. These three individuals generated a list of six contacts. From this list only two individual met the criteria to participate in this study and only one of the individuals agreed to participate.

Measures

In order to obtain an in-depth understanding of how professionals use Social Stories with individuals with autism two data collection techniques were used: a demographic survey and a semi-structured interview. A demographic survey was developed in order to obtain background information from the professionals (see Appendix B). This information provided the researcher with information concerning

the population the professionals served, educational techniques they use, and how they learned about the Social Story technique.

Stake (1995) describes the case study as a way to obtain descriptions and interpretations of others. This is primarily done through observation and/or interview. For the purposes of this study it was more suitable to use an interview to discover the process of how the Social Story technique is used. The interview would allow the professionals to speak freely and at length with only minor guidance from the researcher. Other methods would be more rigid not allowing for depth and breadth of the subject matter to emerge. According to Yin (2003) the interview protocol should accurately reflect the issues to be addressed while at the same time remain free of biases. He also described that the interview should be designed to flow like a conversation. In order to meet these requirements a semi-structured interview protocol was developed to obtain details concerning the utility, creation, implementation, and evaluation of the Social Story technique (see Appendix C).

Interviews one, two three, and five were conducted face to face in the professional's primary place of employment. The fourth interview was conducted over the telephone. This participant was unable to meet before or after school due to previously scheduled meetings. In order to accommodate her schedule this interview took place during the professional's one hour planning period. It was agreed that a telephone interview would best suit the professional and the researcher's schedule.

Procedures

Upon approval from the Institutional Review Board for the study of human subjects, the researcher was able to begin contacting participants. Interviews with Participants One (Isabelle) and Two (Sue) served as a pilot for this study. By piloting the study the researcher was able to refine data collection procedures and lines of inquiry (Yin, 2003). The author was also able to obtain feedback from these participants on her role as a researcher (Yin, 2003).

The interview with Isabelle (participant one) took place in her classroom while her students were at art class. At the beginning of the interview the participant signed the consent form and agreed to be audio taped. The researcher began by asking the participant to complete the demographic survey. Upon meeting the criteria for this study, the researcher began the interview. Throughout the interview the researcher kept to the questions on the semi-structured interview protocol. Upon completion of interview one the professional supplied the researcher with four Social Stories that she has created to be used with the individuals that she serves. The entire meeting lasted approximately 75 minutes. Within two days of the interview the audiotape was transcribed. Upon review of the transcription of interview one, two questions were added to the interview protocol. The questions that were add pertained to information that Isabelle provided during the interview that was not prompted by the researcher. This participant was very detailed in her responses and touched upon two topics that were not previously anticipated. The transcribed interview was sent through electronic mail to the participant for clarification, additional information, and/or

retractions. Participant One responded to the transcription with clarifications and expanded upon some of her original responses. The participant was also asked to provide feedback to the researcher about her skills as an interviewer, what she would do differently, and what, if any, changes she would make to the interview questions. Isabelle provided specific feedback that the researcher was able to incorporate into the following interviews.

Interview two was conducted in the home of the professional, where she conducts private speech therapy sessions. At the beginning of the interview the participant signed the consent form and agreed to be audio-taped. The researcher began by asking the participant to complete the demographic survey. Upon meeting the criteria for this study, the researcher began the interview. The two new interview questions from interview one were incorporated into the second pilot interview. Upon completion of the interview the participant submitted two Social Stories the she had written. This interview was transcribed within 24 hours of the interview. The transcription was mailed to the participant via electronic mail for clarification, additional information, and/or retractions. The participant took time to review the document and elaborate on some of the topics. When asked, participant two did not provide feedback regarding the skills of the interviewer; instead she stated that "it went well". Upon reviewing the transcription the researcher noted that the interview protocol in its current state was successfully answering the research questions; therefore, no additional questions were added.

The researcher took care to maintain the same procedures across the following three interviews. Each interview began with the review and signing of the consent form. Followed by, the completion of the demographic survey. Throughout each interview field notes were kept to highlight important details described by the participant. The interview itself would take between 25 and 35 minutes with the entire process taking between 45 and 60 minutes to complete. Upon completion of each interview, the researcher took time to take notes about the event to help synthesize the findings. Within forty-eight hours of each interview the researcher had transcribed the audio-taped discussion. Prior to coding each interview, a copy of the typed interview was sent back to the participant so she could approve the interview, clarify points, retract information and/or add more information.

Upon adaptation or approval from the participant, coding began. The data collected in the interview was coded for recurring themes. A constant comparative method was applied to the themes. Lastly, the results from the demographic survey, completed by each participant, were compiled.

Data Analyses

This study made use of two methods of analyses. The first type consisted of a within case analysis. This was conducted for each of the five cases. The second method was a cross case analysis that looked for reoccurring themes across all five participants. This section will detail the ways in which the researcher came to the results in the following chapter, including classification, coding, and interpretation.

Memoing

Memoing is a form of note taking used by qualitative researchers to discuss concepts, methodological issues, and/or theoretical formulations (Babbie, 2004). The process of memoing took place throughout the data collection and data analysis process. Memos were written throughout each interview. These memos served as reminders of key points, ideas, and phrases provided by each participant. Memoing information about field observations is a technique used to capture contextual information that the tape recording can not and/or may have missed (Babbie, 2004). Upon completion of each interview the researcher took time to write about the environment in which the interview took place, distractions that may have occurred, as well as self assessment of the researcher's skills and impressions. Upon completing the transcription of the interview the researcher continued memoing while reading and re-reading the transcription and analyzing the data.

By conducting the pilot study the researcher was able to build her skills as a qualitative researcher. Upon completion of interview one, the researcher noted that she felt that her facial expressions and head nodding was leading the respondent to answer in a particular manner. Upon listening to the audio-tape it did not sound as though the researcher was leading the participant; however, the researcher was more cautious of her gestures in the following interviews. The researcher was more comfortable with the subject manner during the interview with Participant Two, this interview flowed more like a conversation than the previous interview.

The researcher also noted that participants four and five were much more terse than the first three participants. Upon conducting the first three interviews the researcher was comfortable with her interviewing skills and felt as through the interview protocol was clear and thought provoking. However the interviewer now believes that the first three participants were more descriptive by giving examples and talking through their responses. The last two interviews required more probing and explanation, thereby causing the researcher to question her skills and the strength of the interview protocol.

Classification

The analysis of the data collected throughout the interviews began with data management (Creswell, 1998). During the data management phase the researcher transcribed the data from the audio tape and placed the information into a word document. From here the classification process was able to occur. The classifying process is a process in which the researcher reviews the qualitative information for categories, themes, and dimensions of information (Creswell, 1998).

This study made use of two methods of analysis. The first type of analysis consisted of a within case analysis. This was conducted for each of the five cases. The second was a cross case analysis that looked for reoccurring themes across all five participants.

Stake (1995) described that case study analysis occurs by processing the case through a means of inductive analysis. Inductive analysis is when patterns, themes, and categories emerge from the data (Patton, 1990).

Cross case synthesis was used to analyze the data. This technique is used to examine more than one case (Stake, 1995). Coding is classifying data into categories (Babbie, 2004). In this research study the transcribed interview was read and re-read by the researcher. As the researcher read the information particular areas would stand out. These sections of text were highlighted and placed into a matrix. As more data was retrieved themes began to emerge and the researcher was able to label specific categories and subcategorize. Categories were considered significant if they were present in three of five interviews. As this process took place the researcher was able to refine the categories and condense the information.

Validity

Babbie (2004) states that validity is when the given measure accurately reflects the concept under examination. Merriam (2002) discusses multiple strategies that researchers can use to promote validity. The researcher employed five of these strategies including triangulation, member checks, peer review/examination, researcher's position or reflexivity, and maximum variation. These strategies are discussed below.

Member checks are when the researcher takes the data and preliminary interpretations back to the participants and ask if they were interpreted properly (Stake, 1995). Each participant was given the opportunity to review the transcription of their interview. This gave the participant the chance to add information, change their response, or deduct information. Two out of the five participants made changes

to the responses they gave during the interview. The other three participants agreed to the interview in its original state.

Peer review consist of discussions with colleagues regarding the research design, emerging themes, and preliminary interpretations. The researcher had the opportunity to draw on the extensive knowledge of her research committee, academic professors, and doctoral students who have been through the Master's thesis process. This collection of individuals was able to provide guidance and support throughout the research process. The researcher worked most closely with her academic advisor/committee chair who helped structured the process, acted as a sounding board for ideas, and facilitated thought provoking conversations on the subject manner.

Researcher's position or reflexivity is when the researcher takes time to reflect upon his/her "assumptions, world views, biases, theoretical orientation, and relationship to the study that may affect the investigation" (Merriam, 2002, p.30). This process took place throughout the research design, implementation, and analysis phases. It was important for the researcher to address her views, acknowledge them and put them aside through the process of data collection and analysis. The researcher had used this technique in the past, but she had her own preconceived notion as to how this technique could be used with individuals with autism. The researcher has viewed the video based workshop as well as attended a one day training provided by Gray. Upon attaining this knowledge the researched developed her questions regarding the use of this technique. The researcher was careful not to lead participants through the discussion. Upon completion of the first interview the researcher noted that she felt

she was gesturing too much, thereby leading the participant to answer in a particular manner. Once this appraisal was made it was revisited prior to each interview to ensure that gestures, including rapid head nodding, smiling, and eye contact were kept to a more neutral level.

Maximum variation consists of seeking variation in a sample selection to allow for a greater range of application of the research findings. The researcher employed this technique by selecting the sample across three different states. The researcher also took care to ensure that participants held a variety of job titles, including a teacher in a private school, speech language pathologist, behavior analyst, occupational therapist, and a teacher in a public school. By examining the use of Social Stories across different geographical areas and job titles the research is able to obtain a more comprehensive view of the technique and if individuals use the technique differently according to their position.

By audio-taping the interviews one can provide a more accurate and complete record of the event (McMillan & Schumacher, 1997). All five participants agreed to have the interview audio-taped. This process adds to the validity of the study.

CHAPTER 4

RESULTS

In this chapter, the results from the five interviews are presented to describe how professionals use Social Stories with individuals with autism spectrum disorder. These results are based on both the demographic survey as well as the interviews that were conducted. The themes evolved after classification, coding, and interpretation of the data that were collected from each of the professionals.

This chapter is comprised of three sections; each section is used to describe the key features of this intervention. The first section, demographics, consists of a summarization of the information gathered from the basic information sheet. The second section, case summary, consists of a within-case analysis; this will highlight the key features of each individual case. Topics that will be discussed include the participant's background, the students chosen for this intervention, utility of this intervention, intervention components, and training and collaboration. Section three consists of an across case analysis of the data. The researcher has examined the data for commonalties. It had been determined that if a theme appears across three of the five participants then it is considered significant.

Demographics

In order to obtain demographic and background information from each of the participants the researcher created a demographic information collection form. The

information gathered using this form informed the researcher of the professional's education, experiences and the educational techniques utilized in their practice.

The participants in this study consisted of five Caucasian females, each of the professionals has a master's degree and at least five years experience working with individuals with autism spectrum disorder. The participants used many of the same educational techniques with the students for whom they provide services. These techniques include, Applied Behavior Analysis (ABA), Picture Exchange Communication System (PECS), Verbal Behavior, Discrete Trial, and Group Instruction. Other techniques employed include, TEACCH, Floor Time, Relationship Development Intervention (RDI), and Computer Based Vocabulary Training. The participants reported that they have used the Social Story technique for at least five years. All of the participants have had some form of training on the use of Social Stories, while three individuals reported having any form of supervision while learning how to implement this technique. Review Table 1: Descriptive Results from the demographic information collection form below for the results.

Table 1: Descriptive Results from the demographic information collection form

Participant	**Isabelle**	**Sue**	**Muriel**	**Jen**	**Kendal**
Gender	F	F	F	F	F
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Job title	Special Ed. Teacher	Speech therapist	Behavior Analyst	Occupational Therapist	Special Ed. Teacher
Highest level of Education	M.Ed	M.A.	M .Ed	M.Ed	M.Ed
Number of years in Special Education	7	15	13	23	14
Number of years working with individuals with autism spectrum disorders	9	15	13	20	12
Number of years in current position	5	15	8	27 yrs	9
Ages of current students	11-14	2-18	18m-22 yrs	10-21	19-21
Educational techniques					
Discrete Trial	X	X	X		X
ABA	X	X	X	X	X
PECS	X	X	X	X	X
TEACCH	X		X	X(adapted)	
Floor Time				X	
Verbal Behavior	X	X	X	X	X
Group Instruction	X	X	X	X	
Other		Computer-based Vocabulary training	RDI		

Table 1: Continued

Participant	Isabelle	Sue	Muriel	Jen	Kendal
Supervision while using the Social Story technique	Informally Speech therapist	NO	Informally Speech therapist	Informally Speech therapist	No
Number of years using the Social Story technique	5 years	8 years	13 years	6 years	6years
Number of students have tried the Social Story technique with	8	About 20	Over 100	About 10	6-12 students
Ages of students that used the Social Story technique	6-14	2-8	3-19 yrs	10-21	14-21

Within-Case Analysis

This section consists of a within-case analysis; this will highlight the key features of each individual case. Topics that will be discussed include the participant's background, the students chosen for this intervention, utility of this intervention, intervention components, and training and collaboration.

Participant One- Isabelle

Isabelle has her Master's degree in special education. She is currently working as a teacher in a private school that serves individuals with a variety of learning and neurological disabilities. This school offers programs for academic and functional skills. Isabelle has held this position for five years, but has worked a total of seven years in the field of special education and has a total of nine years experience working with individuals with autism.

Students

Isabelle's classroom currently consists of five students with a diagnosis of autism, Pervasive Developmental Disorder (PDD) and Pervasive Developmental Disorder- Not Otherwise Specified (PDD-NOS). The students range in age from eleven to fourteen years. The students in her class are functioning on a pre-primer cognitive level.

Isabelle reported using the following educational techniques with her students, Discrete Trial, Applied Behavior Analysis, PECS (Picture Exchange Communication System), TEACCH, Verbal Behavior, and Group Instruction. She reported using the

Social Story technique for a total of five years. She has tried this technique with a total of eight students who ranged in age between six and fourteen.

When asking her about the disabilities of the students in her classroom, the topic of dual diagnosis was discussed. She reported that two of the students in her class had a dual diagnosis; one student has autism and bipolar disorder and the other has autism and obsessive compulsive disorder (OCD). She believes that the stories have helped the latter student decrease the amount of perseveration. She described that, due to the student's limited language skills and his OCD, he will get a thought in his mind and he will repeat the phrase over and over until you acknowledge what he wants to tell you. Typically, he would come into school in the morning and perseverate on an activity that was going to occur after school. Isabelle and the boy's mother created stories that describe some of the special events about which he perseverates. The story is written in the first person so it sounds like he is telling the story to the teacher. Sample story: "Today after school I am going to the Variety Club. I will see Ms. J. and all of my friends. We are going to go swimming. I like to go to the Variety Club. It is fun!" Isabelle believes that, as the teacher or staff person reads the Story with him, it emulates his thoughts and validates his feelings. She reported that after he hears the Story he will decrease the amount of verbal perseveration.

Isabelle also has a student with a primary diagnosis of autism and secondary diagnosis of bipolar disorder. The teacher has not written a specific story to address

the student's bipolar behaviors or characteristics; but she does use typical Social Stories with her and she responds well to them.

When asked, "Is there a type of student that you would not use this intervention with?" Isabelle strongly responded, "No, actually all of the students in my class, I believe, it would work for. It's just a matter of how the Story is presented." She proceeded to talk about creating a story that meets the needs and skill level of the student for whom it is written. The three major areas that were discussed included language used throughout the story, length of the story, and use of pictures to correspond with the words.

Isabelle stressed the importance of using language that is familiar to the child. There have been times when she has implemented a story, but the student doesn't respond to it. After closer examination and/or collaborating with other individuals in the child's life, it becomes evident that the story wasn't working because the student didn't know what the teacher was referring to. For example,

> In one Social Story I had written I had said, ' before you get on the bus you need to get your coat…."And that parent had told me that the phrase 'get your coat' for her child means I want to go somewhere, it didn't tell the student to put on your coat. So I had to change the wording to say: first go to your cubbie, then put on your coat.

Isabelle mentioned that the story should mimic the speech of the student. If the student speaks in three word sentences then the story should keep to that format as much as possible. She also looks at the stories that the students are reading in class

and models their Social Story after them. This is to ensure that the Social Story is on the appropriate reading and comprehension level for the student.

Isabelle explained that she uses pictures that coincide with the words in the Social Story. She stated,

> Because a lot of my students aren't strong readers, they have Social Stories presented to them with pictures. We use a program that is marketed by *Mayer –Johnson* called *Writing with Symbols*. This really helps them follow a story because they are picture readers.

She stated that the students are familiar with the pictures because they are used throughout the classroom to label objects, on their daily schedule, in their communication books, and during group time.

> You can present a Social Story to a student that does not read words. For example, one of my students is not a word reader at all and we present Social Stories to them with pictures and a lot of times include the written words underneath. We minimize the words with the hope that a lot of the students in here that do read are whole word readers so they might eventually start to associate a word with the picture and then we can fade the picture. But a lot of my students just completely follow along with the pictures.

Utility

Isabelle discussed a variety of ways in which she has applied the technique to her curriculum. She mentioned using the technique to introduce the students to novel events and new teaching material, to teach adaptive behavior, and behavior management.

When introducing the student to a novel event or new teaching material, the Social Story can prepare the student for what is to come. For example,

> One of the students was going to be going on an airplane for the first time. We used a Social Story to help prepare that student for the trip, not only what to

> expect when they get to an airport but also what behavior they should exhibit and why.

Isabelle uses the Social Story as a way to teach adaptive behaviors. Adaptive behaviors are classified as self care, social skills, and community integration. In terms of self care this teacher has created Social Stories to address toileting issues, hand washing and menses.

> I have a couple of students who are becoming young women and they are going through some feminine hygiene issues so we have created Social Stories to sort of explain to them about their bodies and what changes their bodies are going through. Also these students are at a point where they do need some assistance during that private time that they are in the bathroom. The Social Story is a very important thing in that area of their life because we want students to have a sense of that their body is private but we don't want students to feel like just anyone can infringe on their personal space so we need to explain to them every now and then they will need help from a certain person. So in a story like that we specified two, maybe three, people who might be assisting that person in the bathroom only and then what will take place and that is a very important type of story for a lot of students.

Isabelle reported that one day per week the class completes a cooking activity. She uses Social Stories to help her students anticipate what is to come. Typically she will write a general story for the entire class. This story will explain to them what they will be cooking, where on campus this will occur and during which part of the day it will occur. This will be read to the student first thing in the morning when their one on one is reviewing their daily schedule. Some of the students will listen to the story a couple of times throughout the day because they need more preparation. Then when the students go to the kitchen they will receive their own student specific story that describes what contribution they will make to the meal and how they will go

about completing their task. Each student has a one-on-one to help them read the story and complete the task. This method gives the students the opportunity to accept the directions through multiple sensory systems.

Isabelle noted that for a number of her students social interactions improved greatly after the implementation of a Social Story. A couple of her students have a peer mentor. This is an older student who comes to the classroom one day per week to interact and model appropriate play. She has written Social Stories for her students so they know how to interact with their friend(s). These stories include information such as appropriate greetings, how to initiate play, and topics that they can talk about together. She mentioned that sometimes in these situations she will include a language script within the Social Story. This script will provide the student with the exact wording that they should use in the situation. She gave the example that if the students are playing basketball she could provide her student with specific lines to use throughout the game such as "pass me the ball" or "shoot it." She has also used Social Stories to help facilitate interactions between the students in the classroom. She has used them to help with greetings and initiating play.

As for community integration, the teacher uses the Social Story technique to prepare the students for field trips, shopping trips, and outings to local restaurants. Through these stories the students are informed of where they are going, what they will be doing, and the behavior that is expected of them. Isabelle described that the use of Social Stories helped the students who are uncomfortable with new experiences and unpredictable environments.

Components

Isabelle took time to talk through the Social Story writing process. At this time she thoroughly discussed the elements included in the Social Stories, how she creates the Social Stories, and how she evaluates the effectiveness of the Social Stories.

Isabelle reported, when implementing a Social Story, the first step is to identify a novel or problem situation. This is typically a school- based problem that has emerged. However many of the students' parents will request that Isabelle create a Social Story that they can use in the home environment. If it is a behavior that occurs in both the home and school environments, the same story can be used. Once the behavior is identified Isabelle and the staff will begin to collect baseline data. She reported that since many of the situations are novel to the student they will typically start at zero.

Elements

When Isabelle creates the Social Stories there are a few elements that she ensures are present in the story. The first has to do with the actual content of the story. She said that it is much like any other story in that it always addresses who, what, where and when. Her stories contain both words and pictures to help the student follow the story. She mentioned that she uses more pictures to compensate for those who do not have strong reading skills. Each of her students has varying abilities. All of her students started with large pictures and small print. As reading skills improve

she hopes to use a picture fading technique where, over time, she enlarges the size of the print and decreases the size of the pictures. Isabelle stated that most of her Social Stories include reinforcement for the student. In one of the sample stories she wrote, "When I am good on the bus in the morning I will get to watch the animal video at school." This informs the student that his/her reward is contingent upon behavior. By including the possible reward in the story increases the student's motivation. Isabelle also discussed incorporating the emotions of individuals that are close to the student, especially individuals from whom the student seeks approval. For example,

> When I wear underwear to bed at night, my big brother and all of my friends at school will think I am cool. When I wear underwear to bed, Mom and Dad and Mrs. Isabelle will all be proud of me. They will be very happy because I am a good, big boy.

Isabelle explained, for some students the ability to please others is motivating enough to get the appropriate behavior to occur.

Isabelle also discussed educational techniques that she uses in conjunction with the Social Story technique. The first two techniques, reinforcement and scripts, were discussed in previous sections. Another technique she discussed was the use of a task analysis. A task analysis is a procedure that describes an activity in a discrete step-by-step format. Isabelle provided one example to highlight the use of the task analysis. She said that when the class does a cooking activity, the students will read a Social Story that provides them with a complete picture of what they are going to make, where it will take place, who will be there, who will have what job, and what

their specific job will be. Then she will create a task analysis that consists of a picture reminder of each of the steps the student has to take to complete his/her part of the meal. That way the student can refer to the entire story, or they can look at the step by step pictures to understand a given task.

At times, Isabelle will include role-playing in addition to the Social Story. Role-play gives the student the opportunity to act out a given situation to help facilitate learning. The role-play is typically practiced in the classroom, then practiced in the natural environment. Isabelle gave an example of the use of a role- play. The class was going to go to the shoe store to practice buying shoes. She created a Social Story about the upcoming shopping trip. As a group the students listened to the story then simulated what was going to happen at the store. The teacher acted out what the story described. First she measured their feet; the student wrote down the number she told them. The student then had to find that number on the wall. The class practiced the shopping event a number of times prior to their trip to the shoe store.

Isabelle described that in some of her stories she will include the level of assistance the student will be able to receive from their one-on-one. Isabelle provided an example of this in one of her Social Stories about grocery shopping, this example states, "When I am in each isle I will look for the food that is on my list. My teacher will also tell me what to look for." This information let the student know that they are not just dependant on reading the words on the paper they are going to have the support there from the teacher to help them read the words. It explains what, "response they are going to be responsible to do independently versus if a teacher or

another adult in their life is going to help them with an activity or a task." Isabelle explained that the information about the supports that the student can expect to receive to help ease any anxiety in the given situation.

Process

As previously stated, once the behavior is addressed, Isabelle will write the story by herself then take the story to other individuals involved in the student's programming for feedback. The individuals she relies on most are speech therapists, occupational therapists, and parents. These individuals will review the story for content, wording and comprehension. They inform her if something is unclear or if a concept needs to be reworded. At this time she mentioned that she has never used a prewritten Social Story. She feels that the stories need to be individualized to the specific needs of each child.

Once the Social Story is written and the team feels that it has covered the details of the situation, Isabelle will introduce the story to the child one-on-one. At this time she will assess the student's level of interest and comprehension of the story. If the student is interested in the story and seems to comprehend the story, Isabelle will introduce the story to the staff members in the classroom. She will discuss when the individual student should hear the story, how many times per day or per week, and any other techniques that go along with the story.

At this time, the one-on-one staff will review the Social Story with the individual as directed by the teacher. This can happen prior to a given activity, on a daily basis or from time to time prior to an infrequent event such as going to the

dentist. Isabelle described the review of the Social Story as "a shared experience between an adult or caregiver and the student." The staff and student will read the story together. Given that the students in Isabelle's class do not have strong reading skills, the staff member will read the story while the student will follow the corresponding pictures. As the student becomes more familiar with the story it is helpful to pause periodically throughout the story so the student can fill in the important words. This helps with comprehension. Isabelle also discussed the importance of reading the story during an appropriate time.

> We really try to pair the story with a fun, exciting time. It is not a good idea to present the story to the student if you know the child is in a bad mood, if things are not going right, or if it just is not a fun experience because you don't want them to pair the eventual trip or story with a negative situation.

While the intervention is in place the staff continues to take data on the behavior to document change. Data is collected in a number of different ways. If it is a behavior problem such as hitting, the frequency of the behavior will be recorded. If it is a newly acquired behavior such as grocery shopping, a prompting system might be employed to indicate how well the individual performed the task. In the latter case, Isabelle has incorporated a data collection system into the story. At the end of each direction in the Social Story she included a line. On this line the one-on-one staff member is to indicate whether the student received a verbal reminder, a gesture prompt or a hand-over-hand physical prompt. This way, week by week, the student's progress can be tracked.

If student's behavior does not change the teacher will reevaluate the Social Story. She will assess to see if it is a problem with the wording, if there is a particular part of the story that the student does not understand, if the student is hearing the story enough, and/or if the staff is implementing the story appropriately. From here the teacher will adapt the story and re-introduce it to the student, and the process will continue as it did previously.

In the case that the Social Story does facilitate change in the student's behavior, the story will be read less often and faded over time. Isabelle reported that some of her students have become dependent on their stories. These students have the stories if they need them and will refer back to them as desired. Isabelle hopes that over time these students will also become less dependent on their Social Stories.

Training and Collaboration

Isabelle reported that she initially learned about the Social Story technique through the speech department at her school. The speech therapists worked with her to gain information about her students so they could create Social Stories for them. As Isabelle saw her students respond to the Social Stories, she began to work closely with the speech department to learn more about the technique. Isabelle attended a one-day workshop on the development and implementation of Social Stories. The county in which she works provided this workshop. The presenter was an educational trainer for the county. Isabelle mentioned that she has read literature written by Carol Gary. She stated the "Carol Gray is most famously known for using Social Stories." Isabelle also mentioned that professors in her graduate program discussed the use of Social Stories

in their classes. As she spoke of her time in graduate school, she mentioned a project that she conducted on the use of Social Stories for a class. In this project, she introduced a new concept to two students that she knew responded well to Social Stories. Student one received a story about that concept along with the typical teaching protocol. Student two only received the typical teaching protocol. Isabelle reported that, "it seemed like the student who used the Social Story was able to become more independent in doing the activity. It seemed like they retained the story in their mind."

When using this, Isabelle collaborates with as many individuals as possible to ensure that the Social Story is appropriate for the child. She mentions collaborating with speech therapists, occupational therapists, paraprofessional staff, and parents. This takes place with the individuals who are most affected by the behavior that is being addressed. As previously stated Isabelle typically will write the Social Story then present the story to her colleagues and parents. These individuals will provide her with feedback on the wording and content of the Social Story. From here they will discuss any changes that need to be made prior to introducing the story to the student. For example, in one Social Story the teacher referred to the student's place of worship as 'church' but when the student's mother reviewed the Social Story she said we call it 'the meeting.' By using the incorrect jargon the context of the story may be mistaken, risking a lack of understanding for the student.

Participant Two- Sue

Sue has a Master of Arts degree. She is currently a part-time Speech Therapist in a public school. The district in which she works serves a total of 166,275 students with 24,000 students receiving special education services. She also runs a private speech therapy practice out of her home. She has held her position within the school district for fifteen years. Sue has worked a total of fifteen years with individuals with autism in the field of special education.

Students

Currently, Sue's school-based program and private practice consist of individuals ranging in age from two to eighteen years of age. Her clients span the entire autism Spectrum under the diagnostic labels of autism, Asperger's Syndrome, Pervasive Developmental Disorder (PDD) and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS). Sue described the cognitive level of her clients as ranging from very low functioning to very high IQ (180-190 range).

Sue reported using the following techniques with her students: Discrete Trial, Applied Behavior Analysis, PECS (Picture Exchange Communication System), Computer-based Vocabulary training, Verbal Behavior, and Group Instruction. Sue has used the Social Story technique for a total of eight years. She recalls having tried this technique with approximately twenty clients who ranged in age between two and eight years. She reported that she has used the Social Story intervention with "primarily kids who are already in some sort of school based program, be it a preschool program or plopped into the mainstream for the first time."

Sue mentioned serving students with autism and mental retardation. When probed further she mentioned two specific clients, each with a dual diagnosis. The one student has autism and deafness, and the other student has autism and visual impairments. Sue has used Social Stories to address specific needs for each of these students. She indicated that for the student with autism and visual impairments, she had the Social Story translated into Braille so the student could both hear the story and read the words. Sue also adapted the Social Story for the child with autism and deafness. Along with using pictures to describe the words, she inserted American Sign Language (ASL) signs to increase the student's understanding.

Sue discussed a number of prerequisites that she believes an individual should attain prior to being able to use a Social Story. These include: cause and effect, means ends, and object permanence.

> They need to understand all three of those things which put them, according to research, at about an 18 month level of functioning. So if they don't have that, and some of our kids have MR (mental retardation) issues on top of everything, then it is going to take A LOT of practice for them to get even the most simplistic Social Story.

When asked if there was a type of child with whom she would not try this intervention, she responded yes. She stated that she would not try this with a child who is not yet available for learning. She explained this further by detailing that the student needs to have basic attending skills, particularly the ability to sit for a period of time, and the ability to follow a three-step sequence.

When the individuals possess the previously described basic skills, Sue believes that the Social Story can be a beneficial tool to help facilitate social

understanding. Social Stories can be created to meet the specific needs of the individual. In order to meet the needs of the individual, she adapts the Social Story to accommodate the student's level of understanding of language and their understanding of pictures and picture symbols.

Sue believes that knowing the individual's ability to understand and interpret language is critical when writing Social Stories. First, it is important to have an appropriate number of words per story, or per page, depending on the child's level. The language that is used should be consistent with the child's ability to comprehend. It is also important to "tweak the language so it is familiar to the child" Sue went on to describe that when collaborating with colleagues they will typically say, "Oh that's not the exact phrase we use; I think we will have more success if we use this wording." It is important for the student to hear the information in the same way he/she would hear it in the natural environment.

Sue has an informal test that she uses to determine the student's level of understanding of pictures and picture symbols. She described that there is a hierarchy of pictures and picture symbols and added that "It might be a photograph, it might be a color symbol, it might be black & white, it might be a line drawing. And see what level the child is at." It is important to know what type of picture will make the most sense to the student. The point of the pictures is to help attribute meaning to the words. Pictures will not facilitate learning if they are too advanced and do not have meaning to the student. She commented, "It is a lot more cumbersome to be taking photos of everything but if that is the cognitive level that they can understand then that

is what you do." Sue described a perceived downside of using photographs as compared to symbols. She said that using a photo can lock the student into associating a word with one specific type of object. For example, she describes what happened to one of her previous students for whom photographs were used in the Social Story:

> This is what a dog looks like. It is always a golden retriever and even though so-and-so's dog is a black lab, that is not a dog. It can't be a dog because in my mind it is always this (a golden retriever).

To prevent this from happening it is best to move away from photographs as soon as the individual is ready.

For some of her higher functioning students, Sue has transferred responsibility for writing the Social Story to the student. Sue will talk through the social situation or event with the individual. Together they will highlight the important aspects and create a Social Story with the information they developed together. She then guides the student through the writing process.

Utility

Sue discussed a variety of ways in which she has applied the Social Story technique to her work as a speech therapist. She mentioned using the technique to teach rules and adaptive behavior, as well as to prepare the students for transitions and guide behavior management.

Sue stated that she primarily uses Social Stories to describe rules to the student. These can be classroom rules, rules at home, or social rules. Sue has created Social Stories for students who are struggling with or have little with experience with

classroom procedures. She mentioned that this not only helps the student have a better understanding of what to expect at school and what is expected of them as a student, but it also helps the teacher. According to Sue, this provides the teacher with "some way to go about reigning in the child and getting some order to his/her classroom." By using a Social Story the teacher has a point of reference to which the student can be redirected when he or she is struggling.

Sue has used the Social Story technique to help teach adaptive behavior. When Sue talked about adaptive behavior she specifically mentioned the following activities: toileting, hand washing, social skills, waiting, and community outings. Sue provided a sample Social Story that was written by two of her students. This Social Story was written to help the students remember how to take turns with one another and with other classmates, and how to react if someone is not taking turn:

> When someone else has a toy you want to use, you need to let him or her know that you want a turn with the toy. Be sure that he/she knows you want a turn:
>
> 1. Get his/her attention by calling to him/her
> 2. Say, "when you're finished playing with that toy, I'd like a turn, Please!"
>
> Be sure to use a loud, clear voice so he/she knows you really want a turn! If you still don't get a turn, you need to:
>
> 1. Get the person's attention again.
> 2. Say in a loud, clear voice, "I'd really like my turn now, please! I was supposed to have it when you were done."
>
> If you still don't get your turn, ask an adult for help. This will make your friends happy to share toys with you! THE END!

Using a Social Story to help facilitate play is just one example of an adaptive behavior that can be addressed through this technique.

Another important task that Social Stories are used for are transitions. Sue spoke of both minor and major transitions. A daily procedure that is used when a student moves from one activity to the next would constitute a minor transition. For example, Sue stated that she has had to provide a number of Social Stories on how to wait in line. This type of Social Story will describe to the students how they should stand directly behind the person in front, keep their hands by their side, not touch others, and remain quiet until it is their turn.

Social Stories written to help students with a major transition would prepare the student for a change in their current situation. For example, Sue has written Social Stories for students who were leaving their current classroom to be mainstreamed for the first time. This type of story introduces the child to his or her new environment, the new teacher, the new classroom rules, and so on. This is a good way to get the student to prepare for the significant change.

Lastly, Sue described using Social Stories to help with behavior management. She said that some of her students are aggressive and the use of Social Stories has helped the students make sense of their feelings and change their behavior. One student, Sarah, was hitting and biting her mother. This aggression was occurring when the Sarah's mother was talking to another person on the phone or in person, and Sarah wanted her mother's attention. Her Social Story is as follows:

> In order to let Mommy talk and keep Sarah happy, there are some things that you need to know. A cooperative Sarah:
> 1. Does NOT cover Mommy's mouth when she's trying to talk to others.
> 2. Does NOT pull Mommy's arm when she's trying to talk to others.

3. Understands and accepts it when Mommy says, "Just a minute, Sarah. Please wait."
A cooperative Sarah: Sits quietly next to Mommy and waits for her turn to have Mommy's attention! If you remember how to wait nicely for Mommy- everyone will be much happier! THE END.

Sue reported that Sarah's aggressive behavior ceased as she became more familiar with the Social Story. The story explained to Sarah "that it's not that Mommy doesn't want to talk to you right now, but she has things to do." Sue elaborated, saying "those situations that come up are very hard for the child to predict- when is going to be over, when will it be my turn, when will Mommy pay attention to me." The Social Story helped Sarah remain calm, and process that Mommy will talk to her again when she is finished.

Components

Sue stated, "A Social Story is much like a child with autism. No two are the same, nor should they be." This highlights the amount of value Sue puts on individualizing the Social Stories for the students with whom she works. Sue spoke at length about the Social Story writing process. She thoroughly discussed the elements included in the Social Stories, how she creates the Social Stories, and how she evaluates the stories' effectiveness.

Elements

Sue took time to describe what a typical Social Story looks like. She said that she includes a cover page. This cover page contains a title and a corresponding picture. The cover page is followed by a story that this typically four to five pages

long. Sue tries to limit it to two phrases per page. The text is written in big print and the corresponding pictures are large as well. Sue noted that with her background in technology she is able to alter the Meyer Johnson Boardmaker Pictures to better represent concepts. For instance, in her story "It's my turn" she showed me that she modified the person's arm so it is reaching out to signify that she wants to look at the toy that another individual has.

When asked if there are components that are incorporated into every Social Story, sue responded yes. She said that she sets up her stories the same way, starting with "if this happens, then I…" Sue then proceeds with a list of behavioral expectations ("I will..") and a list of behaviors that should not be exhibited("I will NOT…") This element of the story (negative behaviors) was highlighted a number of times throughout the interview and in the sample of Social Stories that she provided.

Sue incorporates two different forms of motivation into the Social Stories, reinforcement and the emotions of others. Reinforcement is described as "if I follow this procedure this is what will happen." If I can follow this 3 times this week I get a star, and if I get 5 stars I get a reward (such as special time)." This provides the individual external motivation that will provoke the desired behavior to occur.

Sue also included the emotions of others as a source of motivation. Sue uses the emotions of the parents, teachers, and/or other students to help motivate the individual. Typically, she will include a line in the Social Story that says, "This will make Mommy happy!" Sue has even backed this statement up with a talking picture frame. She will have the parent or another person who is important to the child record

a message such as: “I’m so proud of you Johnny!” which the teacher can pull out when the student does a nice job or follows the procedure. Sue reported that the students seem to respond well to this.

Sue also includes rationale for the ‘I will’ and ‘I will not’ behaviors. She gave the example, “if I wait in line without pulling someone’s hair, my friends will want to play with me more.” By providing rationale, the student will have a better understanding of how his/her behavior effects others, and/or the other parts of the student’s life.

Sue tries to use role play along with the Social Story. Role play is used to help illustrate what is supposed to happen, so when the student gets into a similar situation he/she will be able to draw upon the Social Story and role play experiences. Sue noted that this has been especially helpful for the students who are mainstreamed. Typically she will use a peer model who has no identified disability. Sue will set up a situation and have the students work through it to build their skills. She said, “it is a lot more meaningful to a child if he sees another peer do it than, once again, having another adult talking at them.” She proceeded to described how some peer models are better than others. Sometimes the peer model needs prompting and guidance. Sometimes the peer model becomes bored with the situation. She stressed that it is important to really facilitate this interaction to ensure that it is benefiting the student.

Sue makes use of scripts within her Social Stories. Sue will include specific language and phrases that the student can draw upon when they are in a given situation. As previously illustrated in the Social Story “It’s my turn”, Sue gave the

student these specific sentences that she could say to express her desire for the toy: "I'd really like my turn now, please! I was supposed to have it when you were done." For a student that has difficulty expressing him/herself, giving the student a specific phrase to use can decrease his or her level of frustration at that time.

Process

Sue explained that the Social Story writing process typically begins with a teacher or parent request. Typically the teacher or parent will approach Sue because the child doesn't understand something or won't comply. From here she will request that the parent or teacher collect data in order to conduct a behavioral baseline if they haven't already.

Sue then discusses the situation with the school personnel and/or the family. When she has a good idea as to why the behavior is occurring, the frequency that the behavior is occurring, and when it is most likely to occur, Sue creates the Social Story on her own and then takes it back to person who requested it for feedback. Sue discusses the created story with teacher or parent and together they decide if the story is written appropriately, uses words and phrases that are familiar to the child, includes wording appropriate for the child's cognitive level, and uses pictures accurately represent the words in the story. When these individuals are in consensuses that the story appropriately meets the needs of the student, it will be introduced.

When Sue introduces a story to the student she reviews the story with the individual one on one. At this time she looks to see if the student is attending to the Social Story. She also assesses the student level of understanding; she does this by

conducting a comprehension check. While reading the story she will ask the student questions about the words to ensure that the student understands what the words mean. She also checks to see if the student has an overall understanding of the Social Story's content. Sue mentioned that there are times when she feels that a student is not ready for the Social Story. When this happens she will put it aside for a couple of months and reintroduce it later to assess the student's readiness.

Sue indicated that upon successfully introducing the story to the student, she leaves the story with the teacher or the family to review with child daily, prior to a specific event, or as needed. She said that number of times the individuals reads or hears the Social Story per day, or per week, depends on the situation.

> If it is something like toileting, my own children -as 4 year olds -almost never go to the bathroom at school in a half day program, so some events might not come up. At that point they would have to carry that intervention over to the home setting. However, if the Social Story is about washing hands, which they do about 87 times a day, it would be something that they would get lots and lots of practice on.

Sue said that in many cases it would be sufficient for an individual to hear or read the story five times in a given week. Of course, some students might need to hear it more often and some students might need to hear it less frequently.

In order to evaluate the effectiveness of the intervention Sue asks the teacher or parent to continue to collect data on the child's behavior. She said that this typically consists of completing a simple daily checklist or a daily tally indicating the number of occurrences of the behavior. These data help Sue determine if the Social Story needs to be adapted in any way.

In checking back with parents or teachers, Sue will ask:

> 'How is it going? Do you feel like they get it?' If the student doesn't get it I go back through the Social Story again. I'll ask, 'Are they getting the first part? Is it breaking down somewhere or is it just that they don't get it at all?'

From here Sue will try to determine what part of the story is difficult for the student; Is it the wording, is it a specific step in a process, is the student hearing or reading the story enough? From here Sue will adapt the Social Story to correct the perceived problem. Sue will reintroduce the Social Story to the student and the intervention will continue.

Sue discussed other ways she has adapted the Social Story to meet the needs of the student. She explained that the school district in which she works is very diverse, therefore many students come from homes where English is not their fist language. Sue has worked with translators and translating software to create Social Stories that parents can use at home in their native language. This way the student can hear the English version of the Social Story at school and the native language at home. In another situation, Sue translated the words of a Social Story into American Sign Language for a parent who had deafness. This enabled the parent to communicate the Social Story to her child.

Sue discussed that as the student begins to exhibit a change in behavior the Social Story will continue to be read to the student. Over time, the Social Story is typically read less frequently because the student is successful. "I have kids that even after they have it (the concept) they still want to review it. And that is fine with me, if

they are that comfortable with their books or their collection of stories -- that's ok." Sue does not force any fading procedures to occur. She does try to get the student to be less dependent on the Social Stories. Sue explains:

> I review the books with the kids and if they can recite most of the story then I might say to them "close the book halfway through" and ask, "then what are you going to do?" "What do you do last?" And if they can do that, then little by little I might hold up the book and they might see the beginning picture and that is it– and from there on out they don't need it anymore. Sometimes I have taken the picture of the front page and had that as wall chart as a visual cue – remember what we need to do.

Sue has seen students on their own go back to an old story for review. Sue has adapted the pictures from the Social Story into visual cues to help the student remember what is expected. However if the student's inappropriate behavior begins to increase she will go back to reading the entire Social Story to the student.

Training and Collaboration

Sue indicated that she first came to learn about Social Stories while she served as a technology specialist for the school district in which she currently works. She recalled, at that time, the program was "beginning to use a more visually based classroom." Therefore, she was receiving requests from teachers for visual schedules. As she learned more about visual supports she came across the Social Story technique. Sue stated that the School district in which she works provided a one day in service workshop (regarding Social Story technique?). She attended this workshop after having taught herself about the Social Story technique.

Most of Sue's knowledge about Social Stories came from books. As she read about the topic she took the information provided by the books, incorporated her knowledge of speech and language, and then added her skills and knowledge of technology and software to develop Social Stories to help her students. As we talked about the books to which Sue referred, she stated that she never used a pre-made Social Stories verbatim. Sue believes that these stories "are too pigeonholing." While pre-made Social Stories have provided her with ideas, in order for the story to work for the student it has to meet the needs of that specific student.

Sue talked about collaborating with others to meet the needs of the students. Sue mentioned that she collaborates primarily with teachers and parents. Sue began using this technique in the school setting. She said that she would receive a request from a teacher with a busy schedule, and she would create the product for the teacher. Once the Social Story was created she would collaborate with the teacher to determine if the story accurately represented the situation, if the story contained phrases and words that made sense to the student, and if the story was consistent with the student's comprehension level. The teacher's input is important to accurately capture the needs of the student.

Sue primarily collaborates with parents through her private practice. The parents with whom she works are very involved in their children's education. These parents take on a lot of responsibility and work with their children, on their own, in the home to help the children progress. Sue helps the parents determine what the cause of the problem is and she helps them come up with ways to help their child through these

situations. When collaborating with parents to create Social Stories, Sue follows the same procedures used when working with teachers. Sue will create the Social Story then review it with the parent to determine if the story accurately represented the situation, if the story contained phrases and words that made sense to the student and if the story was consistent with the student's ability level.

Participant Three- Muriel

Muriel has a Master of Education degree. She is currently a behavior analyst for a consultation firm which she started. Through this firm, she serves as a consultant to families with children who are diagnosed with autism spectrum disorder. She provides intensive early intervention programming for children eighteen months to five years of age. Muriel's most commonly provides services include: trainings, support groups for families, and IEP assistance. She has held this position for eight years. She has also worked a total of thirteen years with individuals with autism in the field of special education.

Students

Currently her practice consists of individuals ranging in age from eighteen months to twenty two years of age. All of her clients fall somewhere along the autism spectrum, this includes autism, Asperger's Syndrome, Pervasive Developmental Disorder (PDD), and Pervasive Pevelopmental Disorder- Not Otherwise Specifies (PDD-NOS). Her clients vary in cognitive ability, some with a very high IQ while others are considered very low functioning.

She reported using the following techniques with her clients: Discrete Trial, Applied Behavior Analysis, PECS (Picture Exchange Communication System), Verbal Behavior, TEACCH, RDI (Relationship Development Intervention), and Group Instruction. Muriel has used the Social Story technique for a total of thirteen years. She has tried this technique with an estimated one hundred clients who ranged in age between three and nineteen years of age.

Muriel described that her Social Stories are "100% individualized." Given that she works with so many clients with different needs, she designs the story to properly serve the needs of the students. She has even used the Social Story technique with an individual with a primary diagnosis of Down Syndrome and characteristics of autism. Muriel noted, "In my opinion those kids are socially aware anyway." Given that, she proceeded to explain that she uses Social Stories with this population to help these clients when it comes to novel situations.

Another set of clients that Muriel works with includes individuals with autism and mental retardation, and autism and encephalopathy which, as she explained, eventually leads to mental retardation. She noted that these clients have also responded well to the Social Story technique. She explained that it doesn't matter how high functioning or low functioning an individual is you can adapt the Social Story to meet his or her needs.

Muriel explained that her Social Stories are typically comprised of both words and pictures. The words consist of language that the child knows and understands.

Muriel carefully constructs sentences to be congruent with the child's reading ability and comprehension.

As she discussed the use of pictures she explained that she used photographs and/or picture symbols from the *Mayer Johnson Boardmaker program*. Muriel explained that some students respond better to photographs because they are more concrete and more accurately depict the object that is being discussed, whereas the picture symbols are a representation of the object being discussed. Making sense of the picture symbols requires a higher cognitive process.

Muriel believes that even when an individual is low functioning they can still grasp the concept. She stated, "the more you read a story to the child the more they understand it. I don't think that we have ever had a child that was so low that they couldn't understand it." She then described the most simplistic story she has created. She created a story for a young girl to prepare her for taking a car ride. She said that she took three pictures of the girl going through the process. Picture one was of the girl putting on her shoes, picture two was of the girl walking out the door, and picture there was the girl sitting in the car. This story did not contain words on the page, however, the parent would describe the process while showing her the pictures in the story. This story helped this young girl prepare for the transition to the car for a ride.

Conversely, Muriel stated that she has made Social Stories for higher functioning students that consisted purely of words. As these students have strong skills in reading and comprehension, the pictures are not necessary. Muriel also noted that she asked her higher functioning clients to write their own Social Story. She

helps the student talk through a situation, and then assists him or her with the writing process. She clarified that most of the clients that are capable of this have a diagnosis of Asperger Syndrome.

Utility

As Muriel discussed the use of Social Stories, she mentioned numerous applications of the technique. She uses the technique to prepare individuals for novel events and to teach them new material, prepare individuals for transitions, address issues surrounding adaptive behavior, and address behavior management issues.

Muriel discussed the use of Social Stories to prepare individuals for novel events and to teach new material. She has found that using the Social Story technique to introduce children to something new has helped them process the new information and has decreased anxiety for some clients who become anxious in new situations.

Muriel explained that transition times can be difficult for individuals with autism. She gave one example of how she used a Social Story to address one child's transition from the car to Muriel's office. The young girl, Catherine, was able to unbuckle her seatbelt. When the car was parked she would unbuckle her belt, get out of the car and scream and run up to the office before her mother had the opportunity to get her. The office is located in an office complex, and the parking lot of this site has a heavy flow of traffic. Also the office complex is located near a very busy highway. The mother and Muriel felt that this was a hazard to the girl and her screaming and running needed to be addressed. Muriel described the Social Story instructing Catherine how to behave in this situation:

> We wrote a Social Story about how we walk into Michelle's office. Mommy gets out of the van and you have to wait by her side, until she gets Meghan out (Meghan is her sister) then the Meghan, Mommy, and Catherine hold hands on their way into the office. Sometimes they sing a song, sometimes they skip, sometimes they…you know we gave her options to replace the screaming behavior.

Muriel indicated that the girl would hear the story while they were in the car on their way to the office. She reported that the girl liked how they made a game of entering the office, with singing and skipping.

Muriel has addressed adaptive behavior and skills through the use of Social Stories. These behaviors include: potty training, how to act in a classroom, how to act in a car, how to eat appropriately, community outings, and social skills and social interactions.

In terms of behavior management, Muriel described that the Social Story technique has helped many of her clients decrease or stop aggressive behavior. When I asked more specifically what types of aggressive behavior, she explained "biting, hitting, kicking, throwing, scratching, eye gouging, almost every aggressive behavior imaginable." Typically, Muriel will pair the Social Story with other behavior modification procedures to decrease the occurrence of the behavior.

Components

In this section Muriel detailed the elements included in the Social Stories that she creates for her students. She details the individual elements of the Social Story, how she creates the Social Stories, and how she evaluates the effectiveness of the Social Stories.

Elements

Muriel discussed the many aspects that the Social Story encompasses. Muriel began by talking about the design of her Social Stories. She noted that recently she started to create them differently. When she creates the story, she finds pictures that appropriately match the child's needs. She prints the pictures onto printer paper and then laminates each piece of paper. She then adds the words with a dry erase marker, the kind that needs water to be erased. This way she can easily adapt the story by changing the words on the pages as needed.

Muriel explained that given her training as a behavior analyst she approaches the use of the Social Story technique through this lens: "I look at it as the whole antecedent, behavior, consequence thing, since that is my training." Muriel explained that she labels the behavior, describes the context, and specifies what is expected. She also addresses antecedents, the things that happen prior to the behavior. Antecedents can include cues from the teacher or environment. For example, "When my mom says 'wait for me' I will stay in my seat and wait to be unbuckled." The stories also include consequences. In one example, Muriel described that the girl was kicking the back of her mother's seat while her mother was driving.

> We did a Social Story about where we need to keep our feet, and what we earn when we keep our feet to ourselves in the car. So if I keep my hands and my feet to myself I get to go to DQ. If I kick the seat and mommy warns me I have to go home.

In this story Muriel included a trip to Dairy Queen serves as the child's reinforcer if the unwanted behavior does not occur. The story also includes a consequence, "I have to go home", if the behavior does occur.

Muriel described that she always included reinforcement within her stories as a means to motivate the student. The reinforcement is something that the child will get to experience if they exhibit the desired behavior described in the Social Story.

Muriel stressed that she uses Social Stories as a part of a treatment package. While there are times when she will use a Social Story on its own, she tries to pair it with other behavioral procedures in order to provide a complete intervention.

> Otherwise you can put a reinforcement procedure in and a punishment procedure in, but without a visual procedure to tell them how to act or what to do, it's basically trial and error. To the student you are punishing for this and reinforcing for that without teaching them what they should do. So it is a nice teaching procedure for our kids.

She continued, saying "We might not know that specifically which treatment is the best or the one that is working the most", but as a package they work well together.

Muriel discussed how she uses role playing to help show the client what the behavior looks like and or how to do it. This role play can be conducted with the client and a staff member or with the client and a peer. Muriel conducts social skills groups at her office. During this group time she will choose a behavior to target, typically a behavior that at least one of the students is having difficulty with. She will first illustrate what is expected by acting out the scene. Then Muriel will facilitate the

role play between the students. Muriel explained that this process helps the students practice and become more comfortable with different situations.

Process

This section details the steps which Muriel takes to create and evaluate the use of Social Stories with her clients. This process begins with the identification of a problem. This problem is typically identified by Muriel or by the parent of the child. Once the problem is identified, Muriel takes time to observe the behavior as it occurs and interviews the parent to obtain more information about the situation.

As previously stated, Muriel examines the situation in terms of the individual's behavior including the antecedents to that behavior as well as the consequences of the behavior, and these three components are included in the Social Story. She noted that throughout the story she phrases the language in the positive "So it's not, 'I don't hit my sister', it's, 'I keep my hands to myself when my sister is around.'"

Muriel reported that as she creates stories for her clients she collaborates with the parents and uses their feedback to ensure that the story is going to meet the needs of the child. The parents help frame the situations and choose language and phrases that are appropriate for the child. When they are writing the Social Story, Muriel thinks about all of the information the child will need to be able to succeed. This includes contextual information, cues from others, practice through role play, and observation of someone else exhibiting the behavior.

Once the story is written, it is reviewed with the child; this is done to determine if the individual understands the story. Upon identifying whether or not the

individual has a general understanding the Social Story, the family will incorporate the story into the child's daily schedule. Muriel noted that when Social Stories are first introduced the individual will read or hear the story daily or prior to a problematic situation, depending on the behavior. Muriel again referred to the Social Story created for a client who was kicking the driver's seat in the car. The mother of the individual was having difficulty concentrating on the road while this was happening. The mother and Muriel created a Social Story to explain to the child that she had to keep her feet to herself so they could be safe in the car. Muriel explained that the mother read this story to her child prior to each car ride. They read it in the morning before the car ride to school, they read it in the afternoon before the car ride home from school, and they read it before going out to run errands. This young child was inundated with the story. For a situation that does not occur often, the individual might hear the story one time per day, or one time per week.

It is important to periodically probe the clients while reading the Social Story. Muriel suggests having the client recite the story or at least parts of story, depending on the child's level. She describes that it is more than just reading a story; the story should be discussed and put into context so the client truly understands. She said this involves "getting him used to it, getting him to recite it, getting him to go through it, having him talk about it." Including a discussion prior to reading the story will help the individual process the information.

When it comes to evaluating the effectiveness of Social Stories, Muriel described that she does not have a specific evaluation procedure. She bases much of her evaluation on observation.

> We look at the behavior and is it slowing down? Is it extinguishing? And if it is, obviously one of the many things one being Social Stories is working. In a perfect world it would be great to have a study and you are going to do three interventions and you take one away at a time to see which one is working, or you introduce one at a time. Sometimes it is a situation where it is biting, so you put in a Social Story, a punishment procedure and a reinforcement system. So all three together are a package and so to take one away, I guess we could take the Social Story away and if the behavior increased we would know if it was helping. But we don't do that.

Muriel said that she does not have an official means to determine if the Social Story is effective. She said that she does not use a behavioral check list or an official evaluation tool.

Muriel communicates with the parents regularly. The parents have designated meeting times with Muriel each month, however if they have questions or concerns they are encouraged to contact her as needed. If Muriel observes, or the parent reports, that the client is not responding to the Social Story, Muriel will make changes to it. She said that most frequently those changes are made to the wording of the story. It is common for the wording to be too advanced for the child. Muriel reported another problem, and that is that "Sometimes things are misinterpreted." This can go both ways. Sometimes the child misinterprets the meaning of the Social Story, and sometimes Muriel and the parents misinterpret the problem. She emphasized the

importance of knowing the individual and his/her needs and abilities in order to create an effective intervention.

Muriel explained that there have been times when just one Social Story was not enough and she had to create a series of stories to help the individual through the situation. One student in particular developed a fear of the dentist. She explained that the child had gone to the dentist twice a year for a few years without any problems. At one visit the child heard the dentist using the drill on another patient. When he heard the drill he panicked, had a tantrum, and would not let the dentist near him. Muriel decided to write a series of Social Stories to help the child make sense of what it means to go to the dentist.

The first story was about different sounds. In this story she described how some sounds may appear scarier than they are. Along with this story she started to expose the child to different sounds. The second Social Story was about the tools used at the dentist office. She described the different tools, the sounds that they make and how the tools are used. The third and final Social Story was about the actual dental visit. She described what was going to happen, who would be there, and the tools that would be used.

Muriel described that as the child does grasp the concept of the Social Story and their behavior changes, the story will begin to fade naturally. She described this as the child becoming more independent. She said that the child might need to hear the story every day in the beginning, however, he/she will become less dependent overtime. For example:

> The little girl in the car that I was telling you about earlier, she is able to independently grab her book and bring it with her on the car ride. At this point, we don't necessarily go through the story every time with her.

Muriel described that the girl does not listen to the story everyday; however, the presence of the story serves as a reminder to the child. Muriel expressed that she doesn't plan to fade the Social Stories she expects that over time the child will understand what is expected and the desired behavior will occur. She followed that with, "some kids will go back to a book that they haven't looked at in months." She explained that sometimes the student wants to look at the pictures; sometimes the student wants to read the words. Sometimes she will go back to a book that a child hasn't used in months to review the story with the child.

Training and collaboration

Muriel reported having learned of the Social Story technique while working in a private school for individuals with disabilities. During her time there, she recalls the speech department using this technique with some of her students while they were in speech therapy. As she learned about the technique from the speech department, she started to implement it in her classroom, with their guidance. She mentioned that at first she struggled with this because she was used to creating a sequence of events, and although the Social Story can contain this, she had to train herself to form the sequence into a bigger contextual picture with descriptions rather than a series of directions.

Over the years she has attended a "couple of conferences" on the use of Social Stories. She mentioned attending a one-day workshop taught by Gray. She indicated

that she obtained most of her information from books and colleagues. As she talked about some of the books that describe Social Stories, she mentioned that the books contain sample stories. She added that she has not used a pre-made Social Story for any of her clients. Muriel believes that these stories should be tailored to meet the child's specific needs.

Muriel stressed having collaborated with families, colleagues, and classroom teachers. Given that she is primarily hired by and a consultant to families, the family unit is the group that she collaborates with most often. Most of her stories are written to address home and community issues raised by the parents. The parents help her formulate the appropriate wording and appropriate context of the problem. Also, the parents are often the primary people implementing this technique with the student. Muriel also collaborates with her colleagues by seeking advice and guidance. She and the consultants in her firm work together to problem solve ideas for their clients. They work through problems as a group to develop comprehensive interventions. There are times when Muriel works her client's school teacher. She will collaborate with the teacher to obtain a better understanding of the individual in the school environment. Muriel also works with the teacher to share her knowledge of the child's strengths, and to talk with the teacher about the techniques that she has found to work best for that student.

Participant Four- Jen

Jen has a Master of Education degree. She currently works as an occupational therapist in a private school that serves individuals with a variety of learning and neurological disabilities. This school offers programs for academic and functional skills. She has worked as an occupational therapist for a total of 27 years. She reported that twenty- three of those years have been in the field of special education and she has worked a total of twenty years with individuals with autism.

Students

Currently, Jen works with students ranging in age from 10 to 21 years. These students have a variety of diagnoses including; autism spectrum disorders, Obsessive Compulsive Disorder(OCD), Traumatic Brain Injury, learning disabilities, Tourette's Syndrome, and Developmental Delays. She reported using the following techniques with her students with autism, Discrete Trial, Applied Behavior Analysis, PECS (Picture Exchange Communication System), Verbal Behavior, an adapted version of TEACCH, Floor Time, and Group Instruction. Jen has used the Social Story technique for a total of six years. She reported that she has tried this technique with about ten students who ranged in age between 10-21 years.

Jen primarily uses the Social Story technique with her students with autism spectrum disorder. This includes the diagnosis of autism, Asperger Syndrome, PDD, and PDD-NOS. Jen mentioned that this technique works particularly well with individuals with Asperger's Syndrome. She explained that these students tend to think in a very concrete manner and this intervention, "specifically lays out the rules or the

game plan of how things should be dealt with" thereby increasing their understanding of social rules. Jen has also used this technique with students with other disabilities including developmental delay and Tourette's syndrome.

It was reported that, cognitively, these students are functioning anywhere between a pre-primer reading level to average intelligence. Given the variability in skill level, Jen creates stories to meet the developmental needs of her students.

She described that she primarily uses the Mayer Johnson Computer Program, titled *Writing with Symbols*, to create her Social Stories. With this program she is able to type a sentence and the computer program will insert pictures and symbols that correspond with the words in the sentence. Jen explained that she creates stories so they are on the level with the individual's reading ability. She makes sure she has the appropriate amount of words per sentence and sentences per page. She described that as she types the words of the story into the program a picture will appear. She can change the pictures to meet the needs of the child. She can change the skin tone, hair color, and level of detail, for example, a line drawing versus a detailed face. Jen also stated that she could control how many pictures appear per sentence, "If I write 10 words, I will have 10 pictures. I will leave all 10 pictures in for the lower functioning students and I will take some of the pictures out for the higher functioning students."

Jen described that the pictures are used to "help the words make sense." She mentioned that her students with autism read at a pre-primer level. These students do not have strong reading skills. She believes that the repeated pairing of symbols with

words may help improve the student's ability to recognize words and assign the word meaning, thereby improving their reading skills.

Jen makes an effort to have all of her students help create their own Social Story. She describes that she sits down at the computer with her higher functioning students and helps them write the story. She helps the student think through the situation and brainstorm ideas to address the problem. Jen also includes her lower functioning students in the Social Story writing process. She revealed that she will sit with the student at the computer and, as she writes the Social Story, she also talks through the situation. She explained that the student attends to the computer as she writes the Social Story. Jen described that the student typically follows along with the pictures that are being inserted.

Jen said that there are individuals with whom she would not use this intervention. She said that prior to creating a Social Story for the student; she attempts to check the student's level of interest. "You know if I did introduce it and a student was not interested at all, or not motivated by it, or thought it was childish then I would not go there." She believes that it is important to see if the student feels that this would be something that would be beneficial to him/her rather than just imposing the intervention on them.

Utility

This section highlights the situations in which Jen uses the Social Story technique with her students. She has used this technique to prepare students for transitions and to teach adaptive behavior.

Jen emphasized the use of Social Stories to help prepare students for upcoming transitions. She noted that one student, in particular, has difficulty transitioning from school to an after school program. Jen reported that she has a one- on- one occupational therapy session with him early in the morning one day per week. This day coincides with one of the days he goes to the after school program. She reports that "most days, during our session, he is obsessing over the after school program." When he does this it is difficult for him to concentrate and get his work done. Jen reports that on days like this, she will read the Social Story that she has for him that talks about how he is going to get to the after school program, the things that he is going to do at the after school program, and who he is going to see there. Jen has found that upon reviewing the Social Story she is able to transition him back to the task. She describes that this is his way of telling her about his exciting, upcoming event. She used a Social Story to give him words that he was unable to come up with on his own. "It is almost like he is being heard and he is satisfied with that. He can then focus."

Jen reports that the majority of her Social Stories are designed to teach adaptive behaviors. Jen identified specific behaviors that she has addressed including hygiene issues and social skills. The specific social skills that she has taught include personal space, voice volume, appropriate touching, commenting, and conversation volleys. She described that she is currently working with a student on how to stand in the lunch line. She described that, "we work with the student in the cafeteria, making

her feel more comfortable standing in line, keeping an appropriate distance from her peers, using a good voice volume when she is requesting things from the staff."

Components

In this section Jen describes two important pieced of information. First, she describes the specific elements that go into each story. Then, she details the way in which she creates and evaluates the use of the Social Stories with individuals with autism spectrum disorder.

Elements

As previously described, Jen primarily uses the Mayer Johnson *Writing with Symbols* computer program. This program inserts text and pictures into the Social Story. The stories can be adapted to include as many words and pictures as needed according to the student's ability.

Jen described that, like a typical story, her Social Stories include a clear beginning, middle and end. She noted that the beginning of the story is typically used to identify who the student is, "my name is _____, and I am a student at the _____ school." The middle of the story identifies the problem situation. The end of the story identifies possible solutions, what behaviors are to be expected, and/or possible outcomes that the student might experience.

Jen noted that role- playing is an important part of the Social Story process. Role-play gives her the opportunity to prepare the student for the situation and practice the skills to be successful. Jen cited an example of when she used role- playing to work with a student on conversational skills. She explained that she had written a

Social Story about conversational skills, and the student had been reviewing the story and working on these skills. To assist the student further Jen added some role-playing scenarios so the student could practice with a peer. In the beginning of the session Jen coached the student on "commenting back, staying on the topic, what's appropriate, what's not appropriate." She probed the student, "'how about we make a comment about your weekend.' And then what if the student said 'nothing' how would you respond to that? Or if they said 'I went to the movie' what would you say?" When the student felt more comfortable with the skills that they had been practicing in isolation they brought in a peer to practice having and maintaining a conversation. She noted that she has followed a similar protocol with other students and it has helped them through their situations as well.

Process

Jen discussed that the first step in designing a Social Story is identifying the problem situation. The situation is typically identified by her or the classroom teacher. She mentioned that she has had instances when parents were the ones to request the Social Story.

Once the problem situation or behavior is identified Jen will observe the individual in order to gather more information about the problem and about the individual's strengths. Once she has more information she consults with the teacher to develop the most appropriate intervention for the student and his/her situation.

When the Social Stories technique is chosen as the most appropriate intervention, Jen collaborates with the student to write the story during their

occupational therapy session. During the session Jen begins by showing the student the *Writing with Symbols* program. As they start to play with the program she gauges the interest level of the student. She noted: "9 times out of 10 the student is interested." Jen spends time talking to the student about the situation. She talks about his/her behavior as she observed it and possible things that the student can do to improve. As they talk and come up with ideas they will type them. Once they have ideas on the page they will take the ideas and create the Social Story. Jen stated that this process could take a couple of sessions to get through. Once the Social Story is created, Jen and the student review the story to ensure that the student understands the story and that the story addresses the problem and solutions to the situation.

In one example, Jen created a Social Story to help a student through the lunch line. "This student kept the story in her classroom and each day prior to lunch she read the story to remind herself of the things that she would have to do to be successful in the lunch line." Jen reported that her students review the Social Story prior to experiencing the problem situation. Stories that are about general types of behavior, such as social skills, are read daily.

Jen said that she evaluates the progress of her students through consultation with others involved in the student's program, observation, and anecdotal notes documenting the progress of the student. Jen described a student who was exhibiting trouble in the cafeteria line. She explained that in this situation her anecdotal notes and observations would be based on the following, "her being more comfortable standing

in line, her keeping appropriate distance from her peers, using a good voice volume when she is requesting things from the staff."

There have been times when Jen has had to adapt a Social Story because the student did not have the anticipated response to the story. She has approached this adaptation in two different ways. First, she goes through and analyzes the story to ensure that the vocabulary used is appropriate for the student. Second, she will go through the story to analyze the content to ensure that an important piece of information wasn't left out. Jen has made simple adaptations to stories by changing words or adding phrases to the stories. There have been times when she has discarded a Social Story and started over from scratch. When the story is complete she will reintroduce it to the student, give the student time to read the story and learn the story. She will then re-evaluate the student's progress.

Training and collaboration

Jen first heard of the Social Story technique at a conference on autism. She heard a number of presenters and guests refer to this technique. Around the same time, the parents of some of her students started to talk about and make requests for this technique at monthly meetings. She discovered that some of her colleagues were already using the Social Story technique, so she went to them to learn.

Jen attended a one-day conference provided by Gray on the use of Social Stories. She also attended a workshop provided by the county that consisted of a discussion about the use of Social Stories. She reported that she learned a great deal of information from these workshops. Upon completion of Gray's workshop, she used

Gray's information and followed her specific protocol. Jen noted that as she became more comfortable with the technique she started to adapt it. With each adaptation she realized that the Social Story still worked for the student.

Jen reports that she has a good working relationship with her colleagues. She works one-on-one with classroom teachers, and they work together to provide appropriate supports for the students. While working with teachers she is able to collaborate and problem solves to create interventions. She works closely with the occupational therapy department at the school. Jen chooses to maintain consistent contact with the parents of her students. She is available to meet with parents, answer their questions and take requests. She said that there are times when a parent is having an issue with the child in the home that is not occurring in the school setting. Jen will work with parents to help with the problem.

Jen has referred to books to learn more about the Social Story technique. She stated that these books have given her ideas for stories as well as actual stories. Jen has used pre-printed stories for some of her students. She stated, "I think if you clearly identify what the problem is and you have a story that addresses that problem, in my experience, it has been effective." Jen said that some of the books about Social Stories have pre-written Social Stories as well as follow-up questions and activities for the student. These activities help reiterate the story. They also help Jen determine how well the student comprehends the Social Story.

Participant five-Kendal

Participant five has a Master of Education degree. Currently, she is a special education teacher in a public school. The school district in which she works serves approximately 19,000 students. This district has a school designed to provide specialized services for individuals with autism spectrum disorders, and this school is serves approximately 270 students. Kendal has held this position for a total of nine years. She has worked a total of fourteen years in the field of special education, twelve of those years with individuals with autism.

Students

Currently, Kendal's students are individuals ranging in age from 19 to 21 years, with a diagnosis of autism. She reported using the following techniques with her students: Discrete Trial, Applied Behavior Analysis, PECS (Picture Exchange Communication System), and Verbal Behavior. Kendal has used the Social Story technique for a total of six years. She reported that she utilized this technique with six to twelve students who ranged in age between 14-21 years.

Kendal stressed that she has only used the Social Story technique with individuals who are "average- to high- functioning" students with autism. The students with whom she has used this intervention have the ability to read. She stated, "it is not just having the ability to read but also the ability to use the information and understand it." She added, "I have one student now that reads, but he doesn't understand what he reads, so there is no point in using this intervention."

Utility

This section illustrates the multiple ways in which Kendal has used the Social Story technique with her students. These stories have addressed issues that include: teaching the individual about novel events and new material, addressing issues concerning adaptive behavior, and teaching alternative behaviors to address behavior management concerns.

Kendal has used the Social Story technique as a means to present students with information regarding novel events and new material. She explained a situation in which one of her students obtained employment in the city and would have to learn how to use the public bus system. In order to prepare the student for this new event, the student's team created a Social Story that detailed what it is like to take the bus. Kendal explained some of the instructions in his story: "If someone tries to sit next to me this is what I do. I will wear my seatbelt. Things like that."

Kendal created a Social Story that addressed the disability of a student in her class. She described that this student is very high- functioning; he has very strong language skills and is capable of carrying on a conversation. She stated that this young man knew he had autism and that the word autism was in the name of his school. But he did not understand what the word autism meant. She said that the young man expressed that "he was a little bit different from everyone else but didn't understand why he was different from everyone else." To help him understand this difficult concept, she wrote a story that addressed his concerns. She outlined some of issues addressed in the story:

> Sometimes I have a little bit of trouble expressing myself and I can't exactly tell people what I want, sometimes I do some things that other people find odd like looking at my fingers and rocking back and forth. We just explained the whole thing to him.

Kendal has also used this technique to address adaptive behaviors such as social skills, community integration, and job training

In terms of behavior management, Kendal has put forth some unique ways of using the Social Story technique. She described one situation in which a young man in her classroom (referred to here as 'Jon') was seeking attention from others by putting his hands down his pants then staring at others, particularly teachers, while laughing until he got a reaction. Jon's team decided to put this behavior on extinction by ignoring this inappropriate behavior. Once this procedure was put into place Jon stopped doing this behavior to the teachers but instead directed his stares at the other students. The team decided that they would create a Social Story for the other students in the classroom. This Social Story was designed to teach the other students how to actively ignore Jon's inappropriate behavior

> sometimes Jon puts his hands down his pants and laughs really really loudly and looks right at you waiting for you to say stop it. When that happens I can either ignore him or tell the teacher I am leaving the classroom for a minute.

Kendal reported that the other students in the classroom were able to ignore his behavior and over time when Jon realized he was not getting the attention he desired, this behavior ceased.

Kendal has also addressed aggressive behavior through the use of Social Stories. She stated that one young man was "extremely aggressive." She explained his

behavior as he would hit others and run out of the classroom, out of the school and onto the highway. She used the Social Story technique to describe alternate behaviors that he could use, such as the following:

> If I am really upset instead of trying to hurt someone I can do these kinds of things. If I feel this way I can ask for a break. If I feel that way I can get a drink of water.

She noted that by giving him concrete examples of more appropriate behavior, over time he was able to replace the aggressive behavior with the new skills.

In another case a young man had a Social Story that described the contingencies of his point card. The Social Story detailed the behavior that was expected of him during each section of the day. When he met the criteria of the Social Story he was given the full amount of points on his point card. If he met some of the criteria he received part of the points, and if he did not meet any of the criteria he did not receive any of the points. Kendal explained that when he did not meet all of the criteria she would write on the point card why he did not receive the points at that time. The next day she would have the student review the Social Story then review his point card. She would have him write down part of the day that he did best and the part of the day that he struggled with, so he would be able to gage his behavior and make changes where it was necessary.

Components

In this section Muriel detailed the elements included in the Social Stories that she creates for her students. She details the individual elements of the Social Story,

how she creates the Social Stories, and how she evaluates the effectiveness of the Social Stories.

Elements

Kendal described the specific parts of the Social Stories she typically creates. The Social Stories that she writes are made solely of words. She writes all of her Social Stories in the first person. She described that most of her students have difficulty with pronouns, as they have the tendency to reverse pronouns. She described that if she said to a student "tie your shoes" the student would be more likely to say "tie your shoes" even if he/she is referring to himself or herself. To limit this confusion, the story is written to read "I will tie my shoes." That way when the student is using the information out of context he or she is more likely to use it correctly.

The text is tailored to the needs of the individual. She said that all of the students with whom she uses this technique have the ability to read and comprehend what they have read. However, each story looks different according to the student for whom it is written. One student relates better to text that is in a large font, while another student relates more to text that is spaced widely apart. She mentioned that when she finds a format that suits the needs of the student she creates all of his/her Social Stories in that format. Kendal explained that it can be difficult to train the student on how to use the Social Story, however, training with subsequent Social Stories is often easier once the optimal format is determined. She explained:

> Once I get a student to understand what to do with the Social Story, then I keep the font and font size the same. The title is different and what it says is different, but once they know what a Social Story looks like it is much easier to train the second, third, and fourth story than it was to train the first.

Kendal explained that the consistency helps the student make associations that then foster an expectation and understanding of what is to come.

Kendal mentioned that she used pictures along with the Social Story for only one student. In this story she created the text and added Mayer Johnson *Boardmaker* Pictures as a description of what "good hands" and "good feet" look like. Kendal then took the same pictures from the story and placed them on the cover of his binder as a cue. When the student began to kick his feet she would point to the "good feet" picture which then triggered him to think about the story and what it means to have "good feet".

Much like the previous example, Kendal has used cues in other ways so the individual can quickly access the information from the Social Story. Kendal described that when she uses a Social Story with a student she first introduces the story that contains all of the contextual information that the student needs. Then, once the student understands the concepts and is beginning to do as the Social Story explained she creates a condensed version of the Social Story, presented in a list format. This list of behaviors is used to cue the student to the main points of the Social Story.

Kendal reported that she has also used scripts within a Social Story. The script is used to provide the student with specific words or phrases that can be used in a particular situation. Kendal explained that the use of scripts has "helped the students

draw upon words and language that is often hard for them to retrieve on their own." This language prepares the student to know when and how to use a particular phrase, thus when a situation arises the individual will be better prepared to respond appropriately.

Kendal described that as she implements a Social Story she models the behavior or action for the student. Therefore, "the individual will not only hear the story, he or she will also see an example of what it is supposed to look like." The teacher might be the one to model the behavior for the student, or the teacher highlights a classmate's behavior with the hope that the individual will model the behavior of the other student.

Process

Kendal described that one day per week she attends a staff meeting in which she and the other staff members who work with the students in the class meet to discuss strengths, challenges, and individualized programming for the students. Kendal reported that the staff members who are typically present at this meeting include paraprofessionals, the speech therapist, and the behavior analyst. Other individuals are invited to attend if they choose, and these include parents, school psychologists, and occupational therapists. She reported that during these meetings the changing needs of the students are identified and plans for intervention are discussed.

Kendal reported that prior to intervention a behavioral baseline is recorded. She noted that typically, when a problem behavior becomes apparent, the staff begin to record data on the behavior to determine why and how often it is occurring. Once

this information is determined, the team reconvenes to discuss possible intervention strategies.

If the Social Story intervention is chosen, a team collaborates in writing the Social Story. She specifically mentioned that this team includes the speech therapist, the behavior analyst, and herself. Kendal said that they do not create interventions on their own; all of the decisions regarding the student's program are made by the team. She stated, "we write it up as best we can and read it out to loud to make sure it sounds right." Kendal discussed that it is important to write the Social Story as a team, "this way we do not miss any steps or details."

Kendal stated, "once the story is created and we feel that it will meet the student's needs we will go over the story with the student." She explained that she reviews the story with the student in isolation "after we have it, we would have the student sit down and read it, then have them sit down at the table and read it out of context, just so we can see if they can read through it." She explained that when the student responds well to the story, meaning he or she is able to read it and understand it, the story is fully implemented. If the student presents problems while reviewing the Social Story, the teacher reconvenes with the team so that the story can be adjusted.

After the Social Story is implemented, Kendal continues to collect data on the student's behavior. With this information she is able to determine if the unwanted behavior has increased or decreased, and whether the intervention has any effect on the behavior. If the Social Story does not seem to be helping the individual the team reviews the story again in order to determine if there is a problem with the story or if

this is the wrong intervention for the situation and/or the student. If the team determines that the problem is with the stories they make adaptations and reintroduce the story to the student. If the team determines that the Social Story is the wrong intervention for the particular situation or student, they stop the intervention and determine a new plan.

Kendal reported that if the Social Story is working for the student and there is a change in the student's behavior then the student begins to read the Social Story less often. She reported that she never completely fades a Social Story because the story is a tool that the student can go back to if he/she needs to review. Kendal said that each of the students has a binder that holds their school work. She keeps the Social Stories for the students in their binders, saying "I have never removed a Social Story. Even if it just sits there and it is never used again, they always know it is there in case something ever comes up and they need it."

Training and Collaboration

When probed about how she came to learn about the Social Story technique, Kendal stated, "Honestly, I don't know. It was someone from here. I don't know exactly." Kendal recalled that the school had an in-service training on the use of the Social Story technique; however, she used the technique prior to this training.

As previously stated, Kendal reported that each student has a team of individuals who collaborate with one another to help the student progress. Kendal works closely with her colleagues. She truly believes that taking a team approach is the best way to create a comprehensive program for each student. Kendal reported that

while the speech therapist has books on the Social Story technique that the team looks to for guidance, they create all of their stories on their own.

Cross-Case Analysis

This portion of the results section highlights the themes that were described by three or more of the participants in this study. This across case analysis is designed to indicate the common themes present in the study. The themes to be discussed include the students, utility, components, training and collaboration. Within these themes, subcategories will be identified and discussed.

Table 2: Cross Case Analysis Themes

Students	• Autism spectrum disorder including, autism, PDD, PDD-NOS, Aspergers. • Dual diagnosis -children with ASD along with: MR, Deafness, OCD, Bipolar, Visual impairments, Encephalopathy • Children range in age from 2 years- 21 years • Cognitive functioning- full spectrum, Pre-primmer, Very Low functioning, Average intelligence, High functioning, Very high IQ- 180-190 range • Individually tailored to meet the students needs- developmentally appropriate
Utility	• Novel events and teaching new material • Transitions • Adaptive behavior: social skills, rules, self care, hygiene, community integration, • Behavior Management: maladaptive behavior, aggressive behavior

Intervention Components	Elements- • Words- appropriate reading level, appropriate number of words per sentence, appropriate number of words per page • Pictures: real photographs or symbolic- Mayer Johnson/ Writing with Symbols or Boardmaker • Contingencies (referred to as reinforcement but described as contingencies) • Emotions of other(Mom is happy when I use my quiet voice) • Rapport building- student/ teacher relationship during one on one time • Role playing Process- cyclical process • Teacher or parent identifies problem or upcoming situation • Collect baseline data • Collaborate with others to write a story that meets the needs of the student • Higher functioning children write or co-write story • Has referred to pre-written stories for ideas and guidance but does not use them- tailors to the child's needs. • Introduce story to child- look at level of interest/ comprehension • Read story daily or prior to event happening-depending on topic • Observe behavior/continue to take data • Adapt story /change wording as needed • Does not fade the story- happens naturally
Training & Collaboration	• One day workshop • Collaborations with colleagues • Books (particularly Carol Gray) • Guidance from speech department • Collaboration with parents to meet child's needs

Students

In this section, descriptions of the students who have been targeted for the Social Story intervention are presented. The professionals who were interviewed

provided these descriptions. Four subcategories pertaining to the students served are discussed; these include primary and dual diagnoses of the individuals receiving this intervention, age range of the individuals targeted for this intervention, level of cognitive functioning, and the use of developmentally appropriate practices.

Diagnosis

The professionals described using the Social Story technique with the individuals ranging across the entire autism spectrum. These children carry a diagnosis of autism, Asperger's syndrome, Pervasive Developmental Disorder (PDD), and Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS).

The professionals disclosed that they have used this intervention with students with a dual diagnosis. This means that the student has a primary diagnosis of an autism spectrum disorder and a secondary diagnosis as well. Isabelle explained that two of her students have autism along with a mental disorder. One student has autism and obsessive compulsive disorder and the other student has autism and bipolar disorder. Sue described that she has used the Social Story technique with students who have autism along with a sensory impairment. One student has deafness while the other student has a visual impairment. Both Sue and Muriel stated that they serve students with both autism and mental retardation. Muriel has also used this technique with a student diagnosed with autism and encephalopathy. These three participants have found that the Social Story technique can be effective with individuals with a dual diagnosis.

Cognitive Ability

The professionals who were interviewed work with individuals with varied cognitive ability. The participants described the cognitive abilities of their students through the use of the following terms: very low functioning, Pre primer level, average intelligence, high functioning, and very high IQ in the 180-190 range. Isabelle and Kendal, the teachers, work with students who are similar in their cognitive ability. The other three professionals, Sue, Muriel and Jen, work in positions where they see a variety of students; therefore, they work with students with a variety of cognitive abilities. Given the great variation in age and cognitive ability all of the participants discussed the importance of creating Social Stories that are developmentally appropriate for each individual.

Individuality

All five participants talked about creating Social Stories to meet the individual needs of the student. As the professionals discussed the ways in which they individualize their stories they mentioned the following points: comprehension, vocabulary, and the details of the pictures. All five individuals discussed that they create Social Stories that reflect the student's ability to comprehend. If the student is able to comprehend five word phrases or sentences, the story will have a series of sentences comprised of five words or less. Likewise, all five participants reported that they use words and phrases that are familiar to the student. The professionals described that by using language that is familiar to the student they are supporting the student's ability to comprehend the story.

Similarly, four out of the five professionals discussed adapting the pictures to meet the specific needs of each of their students. Sue and Muriel discussed the hierarchy of pictures and picture symbols. They indicated that they choose the types of pictures or picture symbols used in the Social Story according to the student's ability to understand representations. They explained that a photograph is detailed and most students can make the connection between the photograph of an object and the actual item. So the most basic type of picture would be a photograph. They described that picture symbols are more abstract than photographs; however, these pictures tend to be more generalizable due to the lack of detail incorporated in the picture. Finally, they explained that line drawings are even more abstract than picture symbols. The line drawing contains even fewer details than the picture symbol. Some individuals are unable to understand picture symbols and line drawings so the professional will use photographs. However, the professionals prefer to use pictures and symbols that contain less detail so the student will be able to generalize the information.

Isabelle and Jen also spoke of adapting the pictures to meet the needs of the students; however they were speaking of adapting the number of pictures. They reported that depending on the student's ability to comprehend the story they vary the number of pictures used. The student that is a strong reader and able to comprehend the story will have fewer pictures to guide their understanding of the words. Conversely, the student that does not comprehend the words of the story will have more pictures to help facilitate the understanding of the words.

Utility

In this section, descriptions of the utility of the Social Story intervention are presented. The professionals who were interviewed provided these descriptions. Four subcategories pertaining to the different domains of which the Social Story is used are discussed. These subcategories include: novel events and teaching new material, transitions, adaptive behavior and behavior management.

Novel Events and Teaching New Material

The Social Story intervention has been used as a way to describe novel events as well as a way to teach new material to individuals with an autism spectrum disorder. Isabelle, Muriel and Jen discussed examples of using the Social Story technique in this manner. They explained that the Social Story could prepare the student for what is to come during an unfamiliar event. Through this type of story the professional will describe the event, what will happen, and what is expected of the student in that given situation. Two of these individuals mentioned that providing the student with this information can ease the anxiety that may accompany an unfamiliar event.

Transitions

A transition is the process of moving from one setting or event to another. Sue, Muriel and Jen discussed the use of Social Stories to aid students with autism spectrum disorders in the many transitions that they go through each day. They have also created Social Stories to explain more complicated transitions, such as enrolling

in a new school. Social Stories that address transitions are used to prepare the student for what is to come.

Adaptive Behavior

An adaptive behavior is a classification that describes a series of behaviors relating to one's ability to care for and function on his/her own. These behaviors include: social skills, self-care, hygiene, community integration, and life skills. All five professionals mentioned addressing adaptive behaviors through the use of Social Stories. These stories were used to improve upon and/or add onto skills that the student already had.

Behavior management

This term is used to describe how professionals address the inappropriate behaviors presented by their students. All five participants mentioned using the Social Story technique to help address maladaptive, inappropriate, and/or aggressive behavior. They explained that, in this context, the use of the Social Story is primarily used to describe alternative behaviors that the student can use to replace the inappropriate behavior.

Intervention Components

In this section, descriptions of the components of the Social Story intervention are presented. The professionals who were interviewed provided these descriptions. Two subcategories pertaining to the different aspects of the Social Story intervention are discussed; these subcategories include elements of the Social Story and the process

of creating a Social Story. Both of these subcategories are analyzed further according to particular aspects of each subcategory.

Elements

Each professional described specific elements that are included in their Social Stories. These elements include: reinforcement, emotions of others, and role-playing. Four out of the five participants discussed incorporating reinforcement in the story. As Isabelle, Sue, Muriel and Jen explained, they include a sentence within the Social Story that states, "When I do this, I will get that." They use one of the students preferred reinforcers as a way to help motivate the student to perform the task or change their behavior.

Isabelle, Sue and Muriel have also written about the emotions of others as a way to motivate the student. They described that many of their students have the desire to please others. This could be a parent, teacher, or peer. The professionals explained that by telling the student, through the story, that the desired behavior will "make mom happy" or "make Tom want to play with me" the student will use that as motivation to change the given behavior.

Four professionals discussed the use of role-play to facilitate the student understanding of the Social Story. Isabelle, Sue, Muriel and Jen explained that role-playing is a way to allow the student to practice the given skill prior to experiencing the situation naturally. By allowing the student to practice, the expectation is that the student will become more comfortable with the skill/situation and over time the student will be able to perform more independently.

Process

The Social Story writing process was described by each of the participants. As a group they identified the following steps in creating a Social Story: identify the problem, collect baseline data on the behavior, collaborate with others to write the story, higher functioning students co-write the Social Story, introduce the Social Story to student, read the Social Story daily, observe behavior, make adaptations as needed and fade the Social Story. Each of these subcategories will be described in more detail below.

All five professionals discussed that the first step in creating a Social Story is identifying the target behavior or situation. They described that they will identify the behavior; one of their colleagues will identify the behavior or the parent of the student will identify the behavior. This depends on where and with whom the problem is occurring.

Three professionals, Isabelle, Sue, and Kendal, identified that they gather baseline information of the behavior. The baseline information may include where the problem is occurring, the frequency of the problem, or the time of day that the behavior is occurring. They also stated that if the Social Story is written to describe a novel situation or new teaching material, then the baseline will not be necessary because they will be starting at nil. The other two professionals, Muriel and Jen, described that they do not have a specific data collection protocol. They rely more on observation and anecdotal notes.

Collaboration was a major theme that was described by all five participants. They explained that they collaborate with both parents and colleagues. Sometimes the professional will write the story as a team; other times she will write the story on her own and share it with the other team members to obtain feedback. The teachers explained that by collaborating as a team, they are more likely to ensure that the Social Story is written in a way that the student will be able to comprehend. They are also able to collaborate to ensure that the story is written in a way that explains the situation or behavior to the fullest extent possible.

Three of the professionals, Sue, Muriel and Jen, explained that they have had their high functioning students assist them in writing their own Social Stories. By writing the story together the student is able to help think through the situation and the possible solutions, thereby giving the student more interest in and understanding of the story.

All of the professionals who were interviewed described that once the Social Story is written they review the story with the student. By reviewing the story with the student they are able to gauge whether the student understands the story in its current state. If the student responds to the story and indicates that he/she understands the story, the story will be implemented. If the student does not understand the story the teacher will go back and make adaptations to the story and review it again with the team.

Once the story is written and the student understands the concepts within the story the professional will implement the story in the student's educational program.

All of the professionals agreed that the number of times per day or per week that the student reads or hears the Social Story depends on the nature of the story. They explained further that the more often the behavior occurs the more often the student will hear the story. For instance, if the Social Story is about eating appropriately, then the student would read or hear the story prior to each meal. Whereas, if the story is about visiting the dentist the student will hear the story every day for about two weeks prior to the appointment. The professionals use their judgment as to how often the student should read or hear the story. Once the story is implemented, the professional may increase or decrease the number of times per day or per week that the student hears the story according to how they progress.

Isabelle, Sue and Kendal reported that they collect data on the student's behavior once the intervention is implemented. By collecting the data on the student's behavior they are able to determine if the student is responding to the intervention or not. Muriel and Jen stated that they do not collect data. They continue to periodically observe the behavior and take anecdotal notes to document if the behavior has changed or not.

All of the professionals said that according to the data that was collected or their observations they are able to determine if the student is progressing. They indicated that if the behavior did not change, they would make adaptations to the story. All of the professionals mentioned that they will begin by adapting the wording of the story. Four of the professionals, Isabelle, Sue, Muriel and Kendal, mentioned that they have changed the pictures that accompany the story. They described

choosing different pictures, adding more pictures, taking pictures away, and changing the format of the picture, photograph versus symbols. Two of the professionals, Isabelle and Kendal, said that they have changed the format of the Social Story; meaning the type of font, the font size or the spacing between words and sentences. Also, Muriel, Jen and Kendal mentioned starting over and creating an entirely new story if needed. There are many ways in which the Social Story can be adapted to meet the needs of the individual student and, as Kendal said, it can be difficult to find the format that works best for a particular student. However, when the format works for the student you are able to see his/her gains.

Each of the professionals mentioned fading the Social Story to some extent. As a whole they do not have a particular procedure that they use to fade the use of the Social Story. They mentioned that as the student begins to respond to the Social Story, they would read the story less frequently. If they see that the student's inappropriate behavior begins to return, they will increase the frequency of how often the student will read or hear the story. This is mostly trial and error. Sue, Muriel and Kendal explained that they do not take the story completely away from the student. They feel it is important that the student have access to the story in case he/she feels the need to review it. These professionals described that they have seen their students go back to stories they have not read in a while and review them.

Training and Collaboration

In this section, descriptions of the guidance that the professionals have received in using the Social Story intervention are presented. These descriptions were

provided by the professionals who were interviewed. Three subcategories pertaining to the different forms of guidance that the professionals received are discussed; these subcategories include: workshops, collaboration, and books.

Workshops

All five participants reported that they had attended at least one workshop on the use of Social Stories. Two of the individuals, Muriel and Jen, specifically mentioned attending a one-day workshop provided by Gray. The other three professionals, Isabelle, Sue and Kendal, attended training provided by their school districts.

Collaboration

All five participants reported that they did not receive formal supervision when they began using the Social Story technique. However, they did report that they collaborated with others who were already using the technique. Three of the participants, Isabelle, Muriel and Jen, reported that they collaborated with the speech department when they were learning how to use this technique.

All five professionals reported that they collaborate with others during the process of creating Social Stories. The professionals mentioned collaborating with colleagues, as well as with parents. The collaboration process was described as one, or a combination, of these components: meeting with other team members about the student's behavior and deciding on an intervention, writing the story together as a team, and/or having other team members review the Social Story once it is written for feedback.

Books

Four out of the five participants reported that they have referred to books on the topic of Social Stories. Isabelle, Sue and Muriel have read about the use of Social Stories and have reviewed sample stories; however, they reported that they never used a prewritten Social Story to address the needs of their students. Jen also refers to books on the use of Social Stories and she reported that she has used prewritten stories with her students. She believes that the prewritten story can still be effective as long as it addresses the specific needs of the student.

CHAPTER 5

DISCUSSION

This chapter serves three purposes. First, the researcher will integrate the data and themes in Chapter 4 with the literature on the use of Social Stories. Second, the researcher will discuss the limitations of this research and future directions for upcoming research on the use of Social Stories. Lastly, implications and recommendations for this study will be discussed.

The Use of Social Stories

The purpose of this study was to describe how professionals use Social Stories with individuals with autism spectrum disorders. Upon discovering discrepancies across the literature, the researcher wanted to explore in more depth how this intervention is being utilized. The research questions that guided this study examined the students who are targeted for this intervention, the utility of this intervention, the components of this intervention, as well as the training and collaboration of the professionals using this intervention.

This study was conducted using a multiple case study approach consisting of five individual cases. Each case consisted of a professional who uses the Social Story technique with her students. A professional was defined as an individual who has had at least five years experience working with individuals with autism spectrum disorder, at least five years using the Social Story technique, and has obtained a Master's

degree. The data were collected using a demographic information collection form and a semi-structured interview protocol. The data obtained were analyzed using a within-case analysis and a cross-case analysis. The within case analysis was used to detail the way in which each professional used the Social Story technique, while the cross case analysis was used to examine the common themes across all five professionals.

The professionals interviewed for this study described the use of Social Stories as a cyclical process. This process begins with identifying the target situation; this typically consists of teaching a new behavior, times of transition, teaching adaptive behavior, and/or behavior management. This step is followed by collecting baseline data. Upon collecting data the student's team will collaborate in order to discuss and/or plan an intervention for the target situation. This team is made up of individuals who work with the individual and/or have a relationship with the individual, this may include, the teacher, the individual, parent(s), behavior analyst, speech therapist, occupational therapist, and/or instructional aide. Upon discussing the target situation as a team one of the professionals will write the Social Story. The story will be reviewed by the team and adapted if necessary. The next step in this process is introducing the Social Story to the student. The professional will look to see if the student is interested in the story and/or if the student is able to comprehend the story. If the student is not interested or does not comprehend the story, the professional will go back to the team to discuss possible adaptations that can be made. When the student shows interest and/or comprehension, the professional will read the story to the individual daily or as needed depending upon the situation. At this time, the target

situation will be observed and/or data will be taken to track the behavior. If the individual has difficulty with the story and/or if the student's behavior does not change this concern will be brought back to the team and the story will once again be adapted.

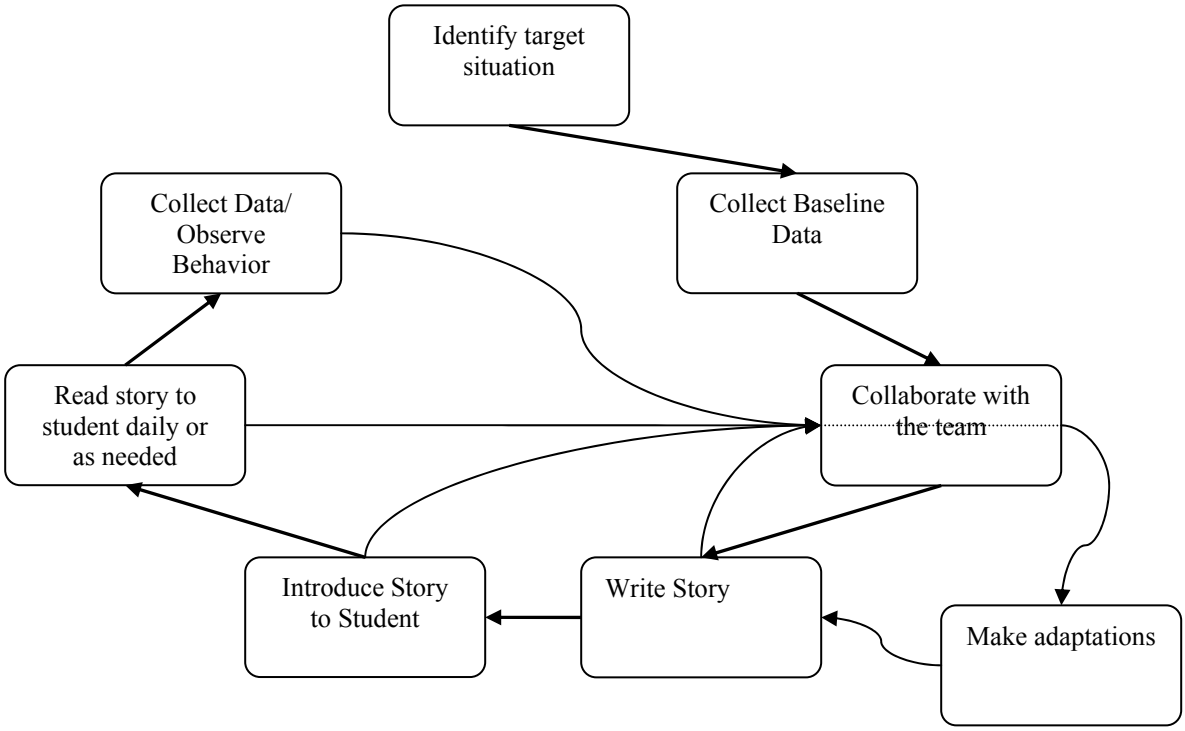

Figure 5.1 Process of the Social Story Model

As indicated from the above model collaboration is a key factor in the use and implementation of Social Stories. Each of the professionals discussed how they look to their colleagues and the parents of their students for input and feedback. This helps the

professional guide the intervention to best suite the needs of the student. As a researcher, it is important to highlight the value of collaboration when working with individuals with disabilities. When an individual has a disability there are many professionals working with the individual in different capacities. It is important to communicate with all members of the team for they each bring a different perspective to the situation.

Upon reflecting on this study, the author believes that this intervention is beneficial to students with autism spectrum disorder because this intervention relies on the use of visual supports to facilitate learning. As previously stated, Odem and his colleagues (2003) deemed the use of visual support as an emerging effective technique used with individuals with autism spectrum disorder. Also, in terms of communication, many of these individuals have difficulty expressing themselves through the use of verbal expressive language (American Psychiatric Association, 2000), however, many of these individuals have strong receptive language skills. This means that they are able to understand and interpret language that they hear as long as it is on their comprehension level. Therefore, pairing the spoken words with the pictures in the story supports the students understanding of the concept.

Themes

Gray is the individual researchers cite as the creator of the Social Story technique. Gray's work has evolved since her first publication in 1993. Gray (2004)

has defined a Social Story as "a story that describes a situation, skill, or concept in terms of relevant social cues, perspectives, and common responses" (p. 10).

In this research study, four out of five participants mentioned Gray and the work that she has done on the use of Social Stories during some point in the interview. Some of the professionals have attended her conference while others have referred to her books. These individuals described some of the similar concepts as well as ideas and usage that differ from that of Gray.

Students

In Gray's early work, she discussed the use of Social Stories with individuals who are diagnosed with an autism spectrum disorder. When Gray began to develop and use this intervention she reported that she used the intervention with students who were considered moderate to high functioning. At a conference in 2004, Gray discussed the more recent success that she has had when using this intervention with individuals who are more severely effected by autism spectrum disorders.

The studies that were analyzed through the literature review depicted that a more diverse population is being served. In three of the studies, the researchers did not specify to the reader the severity of the individual's diagnosis. In the other studies the researchers described individuals with a diagnosis of, Asperger Syndrome, severe autism, mild to moderate autism, and high functioning autism. In a study conducted by Kuttler, Myles, and Carlson (1998) the Social Story intervention was used with an individual with a series of diagnoses including, autism, Fragile X, and Intermittent Explosive Disorder.

This information raised a series of questions about the students receiving the Social Story intervention. The researcher of this study wanted to explore who professionals are targeting for this intervention. Each of the professionals interviewed for this study had different answers according to their target population. As a group, the individuals that have been targeted for this intervention include individuals with Asperger syndrome, autism (severe, mild to moderate, and high functioning), pervasive developmental disorder (PDD), pervasive developmental disorder- not otherwise specified (PDD-NOS), Down syndrome, tourette Syndrome, and developmental delay. Isabelle, Sue, Muriel, and Jen have also used this technique with individuals with a dual diagnosis. In these cases the student's primary diagnosis was that of an autism spectrum disorder and the secondary diagnosis consisting of one of the following: obsessive compulsive disorder (OCD), bipolar disorder, mental retardation, visuals impairments, deafness, or encephalopathy.

Gray has not specified if this technique is more suitable for a particular age group. While reviewing the research studies conducted on the use of Social Stories it was noted that the students who were targeted for this intervention ranged in age from three to fifteen years of age. However, in speaking with the professionals in the present study, together they have targeted individuals between the ages of two and twenty-one years of age. They described that this intervention is suitable for most individuals due to the individualized nature of each Social Story.

Given that the Social Story intervention is created to be individualized to the needs of each student, it would be worth while to conduct research on the

effectiveness of this intervention on other populations. It will be important to determine if this intervention is as successful in working with adults with an autism spectrum disorder, individuals with other disabilities including cognitive and mental health disorders, as well as typically developing children.

Components

Over the years Gray has explicitly defined the components of the Social Story technique. She has developed a checklist that incorporates all of the components that a Social Story should include. This checklist is comprised of ten components that were highlighted in the literature review (Gray, 2004).

Gray (2004) has defined six different types of sentences that the Social Story can be composed of including descriptive, perspective, directive, control, cooperative, and partial sentences. She described that the Social Story should follow a specific ratio. This ratio is 1: ≥2; one directive or control sentence to every two or more descriptive, perspective, affirmative, or cooperative sentences. Overall, Gray believes that the Social Story should provide the individual with more descriptive information than directive information.

The researchers who previously conducted studies on the use of the Social Stories stated that they had created their stories within the parameters in which Gray had set. However, upon reviewing the stories and reading about the stories it was evident that about half of the stories published in these studies did not adhere to the criteria of the Social Story ratio. It was also noted that when the ratio was not followed the individual receiving the intervention still displayed the desired change in behavior.

The professionals interviewed for this study discussed the use of Social Stories; however; they did not mention all of the specific components of the Social Story technique that were previously defined by Gray, and the components that were discussed by the professionals were not consistently mentioned by all of the professionals.

The interventions used with student with autism spectrum disorder should be individually tailored to meet the student's distinct needs. This also holds true for the use of Social Stories. This author of this study, does not believe that Gray's criteria must to be strictly followed in order for this intervention to be effective. The criteria might a good starting point for professionals who are new to the field; however, these criteria can be too restricting for the distinct needs of each individual student.

Training

Upon analyzing the results of this study it was evident that professionals primarily learn to use the Social Story technique through a self-guided process. The professionals discussed attending trainings, referring to books, and collaborating with colleagues to learn how to use this technique. Gray believes that if the training or workshop is not presented by her or someone from her center then it is not an official Social Story training. Of the five professional who were interviewed only two professionals had attended a workshop presented by Gray. The researcher noted that the responses gathered by these two professionals did not reflect Gray's views anymore than the responses received from the other three professionals who did not

attend Gray's training. Therefore it is not known how much Gray's trainings influence the way in which professionals use the Social Story technique.

Theory

Bandura, a well-established Social Learning Theorist, took his work and the work of his colleagues and developed a more comprehensive theory known as Social Cognitive Theory. This theory accounts for many of the principals of the Social Learning Theory; however, Bandura has broadened its scope to include one's cognition. Bandura (1986) constructed the triadic reciprocity model. This model includes three components that come together to support an individual to learn.

This model supports individualized programming for students with autism spectrum disorders. First, the cognitive and personal factors allow the teacher to take a developmentally appropriate approach to teaching the child. It is imperative to know the skills of the child and to approach the child at his/her current level. It is also important to recognize the specific learning styles of the child and tailor curriculum so he/she can learn and be successful (Bransford, Brown & Cocking, 2000).

Second, the observation of behavior can take place through different mediums. Individuals with autism typically have difficulty processing external stimuli due to over-stimulation, under-stimulation and/or impairments in their processing systems. This puts children with autism at a disadvantage with their typically developing peers in that they do not learn as easily through direct observation of others' actions. Typically, when working with an individual with autism, desired behavior is taught in

a repetitive step by step fashion; or in the case of Social Stories through the repetitious reading of a story that details a sequence of behaviors in a given environment. This repetition becomes habituated and eventually internalized. The ability to teach the child through the use of a story gives the child direct access to the information that an individual would want the child to learn (Gray, 1993).

Finally, the environment plays an important role in the education of individuals with autism spectrum disorder. It is important to teach children with autism in the natural environment. The natural environment is the place in which the child will use the skills in the future. For example, one would not want to teach a child how to brush his teeth at his desk. Instead, one would want to take the child to the bathroom in order to teach this concept appropriately.

Methodology

The case study design was used in this study to explore the ways in which professionals use the Social Story technique with individuals with autism spectrum disorders. The descriptive information obtained through this investigation provides future researchers with a foundation that they can use to create a study using a more rigorous design. This section details the limitations of this study as well as future directions for research.

Limitations

This study is designed to explore how professionals use Social Stories with individuals with autism. There are limitations to this study for the following reasons,

the experience of the researcher, sampling procedures, and generalizeability. Each of these factors will be discussed in more detail below. It is important to recognize all possible limitations of a research study as this will allow the researcher to use the prescribed method appropriately (Graziano & Raulin, 1989).

This study is the first original piece of research produced by this author. Given that the researcher is a novice, supports were put in place to help guide the researcher's thoughts and facilitate the design of the study. The researcher's academic committee was the primary point of contact during this study. The researcher looked to the chair of the committee for the majority of the support and direction.

This study used both a purposeful and snowball sample. The use of the purposeful sample allows the researcher to choose participants who will provide information rich case examples. This also allows the researcher to choose individuals who are similar to one another or who are different from one another, depending on the use of the case. The snowball sample was used to identify additional individuals who also use this technique and might qualify for the study. By using this sampling technique the researcher was able to obtain participants. However, there are limitations to both of these techniques. By allowing the researcher to choose his/her participants the researcher can design the study in a way that gives him/her the results that he/she desires therefore making the study invalid. Also, the use of the snowball sample can lead to a situation where the participants provide the researchers with other individuals who have the same views and experiences. If the researcher is looking for a diverse sample, than this may not be the most appropriate technique to use.

Unlike other types of research, the case study is not designed to produce generalizations about a topic (Stake, 1995). Reoccurring topics and themes have emerged; however, this does not mean that the data is representative of all professionals who use Social Stories. These themes are referred to as petite generalizations (Stake, 1995).

Given the diverse background of the professionals who were interviewed it is important to discuss the variation in their training on the Social Story method. These individuals have been trained by a variety of people therefore it is not known if the diversity in their responses are due in part to their training or if they have used the information differently.

Future Directions

In order to study this intervention in a more comprehensive manner, future studies should take care to include multiple methods of data collections as a means to triangulate the study. Triangulation is the use of several methods to test the same finding (Stake, 1995). Given that each method has its own set of strengths and weaknesses the use of triangulation can offset the weaknesses and strengthen the results. The multiple methods that are possible include interviews, survey, observations, content analysis and focus groups. By conducting a triangulated research study, one is able to increase the validity of their results. The process of triangulation also makes ones results more generalizable.

Another type of study that can be conducted to obtain a better understanding of the Social Story technique is ethnography. An ethnography is a detailed description of

how something occurs. This type of research requires the researcher to become part of the environment as a participant observer. An ethnographic study would provide a more detailed description of how the Social Story technique can be used. If one chooses to conduct this type of study he/she could look to see how long it takes the professional to write each Social Story, how many colleagues does the professional consult with, How much input do the families provide, are all of the families give the same amount of opportunity to collaborate with the professional, on average how often does the student read/hear the Social Story, approximately how long does it take for the student to display a level of understanding. This type of study can give a detailed account of how this technique is being used in a particular classroom. This type of study is much like the case study in that it is another way to identify the essential details then create a more rigorous design to prove the findings of the study.

Implications and Recommendations

Implications

In 1997, the Individuals with Disabilities Education Act was reauthorized. As part of this legislation, it was mandated that all students be included in state or school district assessment programs. This legislation directly coincides with the No Child Left Behind Act (2001). No Child Left Behind is a government policy which is striving to enhance the current education system throughout the United States. The key component of this policy is accountability. The government is striving to create an education system that provides all of its students with the opportunity to obtain a

quality education. In order to achieve this all of the students will undergo state testing to ensure the standards are being met. This legislation is also encouraging our education system to provide evidence-based practices to ensure that individuals are receiving a quality education.

Given that individuals with autism spectrum disorder have a variety of needs it is thought that they respond best to a program that is eclectic in nature (Odom, et al., 2003). We also know that there is no one intervention that will work for everyone on the autism Spectrum. The intervention must make use of multiple strategies and techniques to meet the individual's specific needs. Many of these educational techniques are under-researched and do not have a strong base of evidence at this time. This is causing programs to subscribe to one method thereby excluding many possible interventions that could very well suit the students in which they serve.

To overcome this challenge, more research should be conducted on the educational techniques used to serve this population. Research should be conducted on both treatment efficacy and the treatment implementation process. This is a growing field of study and we as researchers are in control of the fate of the field. It is up to us to test these techniques and disseminate the appropriate information.

If we want our students to succeed we must support those who are educating them. The teachers in our education system need resources and training to enable them to facilitate learning. According to the Individuals with Disabilities Education Act of 1997, all students should be placed in the least restrictive environment. Therefore, regular education teachers should be prepared to work with students with varying

abilities. With the increased number of children with autism spectrum disorders, all teachers should be prepared to work with individuals who have this diagnosis.

Recommendations

Based on the findings of this study, five recommendations have been made on the use of Social Stories with individuals with autism spectrum disorder. The first recommendation is the continuation of study on the use of the Social Story technique as well as all educational techniques used to serve individuals with autism spectrum disorder. It is important to not only know if these interventions are effective, but also why they are effective. By conducting more research we will be able to integrate more techniques into the classroom thereby providing more support to the individuals served.

The second recommendation is that we should continue to study the use of this intervention with individuals who have autism spectrum disorder as well as expand the studies on the effects of this intervention to other populations. This intervention should be studied with students with varying disabilities as well as typically developing children. The description of a social rule or situation in the form of a book with pictures could possibly benefit any individual with a lack of understanding. The Social Story technique could be beneficial because it explains a situation in a discrete concrete manner.

The third recommendation is that professionals should use this technique in a manner that suites the needs of each individual student. According to this study, the professional can have positive results through the use of this technique even if Gray's

protocol is not followed. The protocol created by Gray can limit what the professional can discuss in the story, thereby not providing the student with all of the necessary information and limiting their ability to learn.

The fourth recommendation is to increase training for teachers. Teachers who specifically work with individuals with autism spectrum disorder tend to have an idea of the different types of programs available for their students. However, regular education teachers who get one or two students with autism spectrum disorder in their class need training to assist them in providing the student with the necessary supports to integrate individualized techniques into their classroom.

The fifth recommendation is that professionals should collaborate as a team. All of the professionals who were interviewed for this study stressed the importance of collaborating with parents and colleagues this is a key factor in designing and implementing Social Stories. By working as a team they are able to ensure that the story is accurate and that the student is progressing as a result of the intervention.

Conclusions

The Social Story technique can be an effective tool to be used with individuals with autism spectrum disorders. This tool can combine behavior support and skill acquisition to more accurately provide students with the information needed for learning. The use of visual supports can enhance ones level of understanding. One of the major strengths of this intervention is that it can be adapted to be used across many domains of learning and environments. The Social Story technique, in combination

with other methods used with students with autism spectrum disorders, can make a powerful intervention. It will be important to continue to study this intervention in terms of its use, implementation, and efficacy.

APPENDIX A

Informed Consent Form

The purpose of this research is to examine how professionals, particularly teachers, speech and language pathologists, and consultants, use Social Stories with individuals with autism. By agreeing to participate in this research, you will be involved in a one hour interview. You will be asked questions about how you define, use, and evaluate Social Stories. You will also be requested to submit your three most recently written Social Stories. In order to maintain the anonymity of your students/clients, the Social Stories that you submit for analysis should not contain any names or any identifying characteristics.

Your name and the name of the organization for which you work will remain confidential throughout the analysis and reporting of the data. The interview will be audio-taped. If you do not wish to have this interview recorded you may indicate this below. The audiotape and notes will be kept in a locked filing cabinet in the researcher's office at the University of Delaware.

Your participation in this study is voluntary. You may refuse to answer any question and/or stop the interview at any time. You may withdraw from the study at anytime without penalty.

Essentially, your participation poses no risks to you, your students, or the organization for which you work.

If you have questions about the research you may contact the primary researcher, Brigid Carbo (215-896-8821) or Dr. John Vacca (302-831-8544). If you have questions regarding your rights as a participant, you may contact the Office of the Vice Provost for Research at the University of Delaware, by phone (302-831-2136) or by mail: 210 Hullihen Hall, Newark, DE 19716-1551

□ Yes, I agree to have this interview recorded.
□ No, I do not agree to have this interview recorded, but I would still like to participate in the study.

Consent Signature
By signing your name below, you agree to participate in this research study and verify that you have read and understand this document.

_____
Participant signature Date

APPPENDIX B

Demographic Information Collection Form

Gender: Female □ Male □ ID_____

Group you identify with:

□Caucasian	□African	□Hispanic/Latino	
□Native American	□Asian American	□Other_____	

Job Title: _____

Highest level of education: _____

Number of years working in special education: _____

Number of years working with children with autism: _____

Number of years in current position: _____

What are the ages of the children you currently work with? _____

Educational techniques used (Select all that apply):

□ Discrete Trial	□ PECS	□ Group Instruction	□ Verbal Behavior	□ Other___
□ Applied Behavior Analysis	□ TEACH	□ Floor time	□ Son Rise	

Did you receive formal training/coursework/clinical experience on the Social Story technique? □ Yes □ No.

If yes, how did you obtain this formal training? _____

Did you receive mentoring and/or direct supervision on the Social Story technique?

□ Yes □ No…

If yes, name the position of the person who trained you _____

How long have you been using the Social Story technique? _____

How many students have you tried the Social Story technique with? _____

What are the ages of the children who you have used the Social Story technique with?_____

APPENDIX C

Semi Structured Interview Protocol

1) You have used Social Stories with your Clients/Students. How did you come to learn about Social Stories?
Probes

- Have you attended workshops or trainings?
- Did you have supervision when you began using this technique?

2) Tell me how you define Social Stories?

3) What types of behavior have you addressed through the use of Social Stories?

4) What types of individual have you targeted for this intervention?
Probes

- Is there a particular degree of autism?(Asperger, High Functioning autism, Mild, Moderate, Severe)
- Do any of the students have a dual diagnosis?
- Does the individual have to have priming skills/ the ability to attend to a book?
- Does the individual have to have the ability to read?
- Is there a type of individual that you would not target?

5) Can you describe to me how you typically carry out the intervention?

- How often does the individual hear the story?
- Do you role play and/or model the story for the child?

6) How do you evaluate the effectiveness of a Social Story?
Probes

- Do you collect a baseline conducted?
- Who typically collects the data?
- Do you collect treatment data?
- Do you alter the story for any reason?
- Do you have fading procedures?

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