

A Curriculum Preparing Students to Attend a Sensory Friendly Performance of “The Giver”

Heather Smee

Alyssa Southerlin

Laney Vaughan

Carlow University

Imagine preparing a favorite meal for family or friend gathering. For many people this task is very simple, almost mechanic. All of the steps involved in preparing a meal are easy; finding the ingredients, preparing the ingredients, combining the ingredients, setting the table, interacting with family or friends, and the clean up. Now imagine if one of your senses has been taken away or interfered with. The easy process of preparing a favorite meal becomes difficult or even unbearable. The interaction with family or friends becomes altered as well when there is a change in one of the senses. Individuals with sensory processing disorders (SPD) or sensory integration dysfunction (SI) experience difficult and unbearable situations everyday that impact a simple task such as preparing a favorite meal.

### **What is Sensory Processing?**

Sensory processing is how humans use information that is provided by all the sensations within the body and from the external environment (Biel & Peske, 2009). Many people believe that our senses are separate channels of information, but they are actually used together to create an understanding of the world and our place in it (Biel & Peske, 2009). Our senses work together to create an understanding of who we are, where we are, and what is happening around us. The brain uses the information about sights, sounds, textures, smells, tastes, and movements in an organized way. When we experience a sensory experience our brain stores a meaning to the sensory experience. From the sensory experience, individuals know how to respond and behave accordingly (Biel & Peske, 2009).

Sensory processing impairments have been symptoms for many health related diagnosis such as, stroke, multiple sclerosis, vertigo, and other medical conditions. In the 1970s, a theory and practice was created for SI by an occupational therapist, Dr. A. Jean Ayres (Biel & Peske, 2009). Dr. Ayres recognized that impaired sensory integration affected learning and development

in children that she worked with. It is estimated that SI affects between 10 to 15 percent of children (Biel & Peske, 2009). There are many different forms of sensory preferences and intolerances that affect a person's engagement in play, work, learning, social interactions, and everyday activities such as dressing and eating.

### **Sensory Processing Disorder**

From the wide ranges of sensory processing intolerances and preferences the term sensory processing disorder (SPD) was created. SPD includes patterns and subtypes under an umbrella disorder, which is more precise for diagnosing, and uses the same terminology for professionals in other related fields (Biel & Peske, 2009). Under the SPD umbrella there are three classifications of SPD, sensory modulation disorder (SMD), sensory-based motor disorder and sensory discrimination disorder.

### **Types of Sensory Processing Disorders**

Sensory modulation disorder (SMD) refers to the central nervous system and how it organizes responses to sensory stimuli. When an individual is diagnosed with SMD their sensory input may not correspond correctly to the actual experience. The response maybe overresponsive, underresponsive, or the individual may engage in sensory seeking behaviors. Sensory-based motor disorder affects the way an individual moves. The individual may be dyspraxic or have difficulties with posture. An individual with dyspraxia may be clumsy, awkward or accident-prone. Postural disorders affect the individual's balance, strength, and endurance. The last classification under SPD is sensory discrimination disorder. Sensory discrimination disorder affects an individual's ability to perceive the salient qualities of sensory input and/or struggles to differentiate between the qualities of two sources of stimuli (Biel & Peske 2009).

## Symptoms and Diagnosis

SPD is a very unique diagnosis because each individual reacts differently to sensory stimuli. Rebecca Moyes states in her book, *Building Sensory Friendly Classrooms*, “SPD is one of the least understood and yet highly prevalent conditions among students with disabilities” (2010). The symptoms and signs for SPD vary between individuals. When diagnosed with SPD one or more of the sensory processing modalities may be compromised. The sensory-processing modalities are visual, auditory, olfactory, tactile, gustatory, vestibular, and proprioceptive (Moyes, 2010).

Individuals with SPD may also display many behavioral symptoms. Some of the symptoms include: oversensitivity or undersensitivity to touch, sights, sounds, movement, tastes, or smells, high distractibility, with problems paying attention and staying focused on a task, an unusually high or low activity level, frequent tuning out or withdrawing, impulsivity with little or not self-control, discomfort in group situations, social or emotional difficulties, and more (Biel & Peske, 2009). These symptoms may be apparent in lots of kids for many different reasons. These behaviors may even be developmentally appropriate for certain situations. These symptoms become more worrisome when they affect daily functions.

Along with these behavioral symptoms, individuals with SPD may also be hyposensitive or hypersensitive. An individual who is hyposensitive is undersensitive to types of sensory input, where as an individual who is hypersensitive is oversensitive to types of sensory input. An individual who is hyposensitive may seek out a type of sensory stimuli because it could be calming or comforting. An individual who is hypersensitive may avoid that same stimuli as the hyposensitive individual because it is a sensory stimuli overload (Moyes, 2010). In many cases an individual could have mix reactivity to stimuli. One day they may react hyposensitive to a

stimuli and the next day hypersensitive to the same stimuli (Biel & Peske, 2009). When individuals are not getting the sensory stimuli they need, they will engage in self-stimulating behaviors. Some of those behaviors may be hand flapping, tapping pencils, wiggling feet, playing with hair, and flicking fingers (Moyes, 2010). It is important to remember that an individual with SPD responses to sensory stimuli are not voluntary. The responses are unusual neurological responses that result in unusual behavior (Biel & Peske, 2009).

### **Causes of Sensory Processing Disorder**

There is no definite reason or causes for SPD. SPD often occurs on its own, many individuals with SPD do not have another coexisting disorder like autism. When SPD does occur on its own it can range from mild, moderate to severe (Biel & Peske, 2009). One of the possible causes of SPD is when the neurons in the brain that fail to connect during fetal development. This creates a disconnect for when signals are being sent through the brain for correct responses to sensory stimuli. Another possible cause of SPD is related to an abnormal cerebellum. The cerebellum acts as a control for sensory input (Biel & Peske, 2009). Along with an abnormal cerebellum, the hypothalamus is a major part of sensory input. The hypothalamus receives sensory input and travels it to the correct area in the brain. All sensory input, except smell, travels through the hypothalamus (Biel & Peske, 2009). There is a disconnect in the brain that is thought to be the one major cause of SPD. Individuals who overreact to sensory experience do not habituate to sensory input. This causes the individual to feel the sensory input over and over as a brand-new experience that then alerts the nervous system (Biel & Peske, 2009).

Though the causes of SPD are very wide and not well known some other factors and coexisting diagnosis experience SPD. Some other factors that are believed to cause SPD are genetics, prematurity, birth trauma and hospitalization, and heavy metals poisoning (Biel &

Peske, 2009). SPD can appear on its own as a singular diagnosis but it also is prevalent in many coexisting diagnoses. SPD occurs in the following coexisting disorders, autism spectrum disorders (autistic disorder, Asperger's syndrome, pervasive developmental disorder, NOS), attention deficit disorders, oppositional defiant disorder, depression and anxiety, bipolar disorder, obsessive-compulsive disorder, Tourette's syndrome, fragile X syndrome, fetal alcohol syndrome, cerebral palsy, and down syndrome (Biel & Peske, 2009). With all of these other coexisting diagnoses an individual may have, diagnosing SPD may be difficult because the symptoms of both can overlap. It can sometime be impossible to tell the difference between sensory processing disorder and the symptoms of other diagnoses (Biel & Peske, 2009).

### **Activities for Individuals with Sensory Processing Disorder**

Finding activities and community programs for individuals with disabilities and SPD to engage in is difficult. A study conducted by Orsmond, Shattuck, Cooper, Sterzing, and Anderson found individuals with autism spectrum disorders (ASD) are more likely to experience social isolation than individuals with intellectual disabilities (ID) (2013). The study was conducted by parent and student surveys. If the student could not complete the survey independently the parent would complete it. Social experiences were compared between young adults with ASD, ID, emotional disturbance (ED), and learning disabilities (LD) (Orsmond, et al, 2013). The survey that the participants completed rated the following; never got together with friends, friends never called on the phone, was never invited to other friends' social activities, and the created variable of social isolation (Orsmond, et al, 2013). The study found that young adults with ASD were significantly more likely to never see friends, never get called by friends and never be invited to activities (Orsmond, et al, 2013). Along with these findings young adults with ASD had a higher rate of social isolation.

Creating opportunities for young adults with ASD, ED, LD, and other disabilities to participate in social engagement is important. Engaging in social activities will improve the quality of life and lessen the impact of coexisting conditions and other symptoms of the disorders (Orsmond, et al, 2013). A way to create social opportunities for young adults with disabilities is to support the individual when they engage in the social opportunities. Individuals can gain support from families and service providers. To find social engagement opportunities families and the young adults can contact vocational service providers, day program providers, and community recreation programs (Orsmond, et al, 2013).

### **Theatre and Sensory Processing Disorders**

One great social engagement for individuals with disabilities is attending musical, theatre or dance productions. Many performing companies are creating performances that are sensory friendly. A sensory friendly performance is a performance that is designed for families with individuals with autism and other disabilities. The performance is created with sensory sensitivities in mind. To create a sensory friendly performance there are some accommodations that need to be looked at to create a successful theatre experience for the family and for the individuals with a disability.

### **Accommodations in the Theatre**

One accommodation during a sensory friendly performance is altering the lighting of the theatre and on the stage. During typical performances the house lights are turned off. For a sensory friendly performance the house lighting can be dimmed or left on. Some individuals with SPD may react to the sensory stimulus of the lights. Having the house lights dimmed or left on will also allow for easy exiting or reentry of the theatre if an individual is becoming over stimulated and needs to take a break. The lighting on the stage is also an accommodation that

needs to be made during the sensory friendly performance. The Kennedy Center for Performing Arts suggests creating a sign for audience members when there will be unexpected lighting such as strobe lights or bright flashes.

Another part to creating a sensory friendly performance is to take in consideration the sound. During the beginning steps of production it is important to talk with the sound technician. The sound during the performance should be kept at a neutral level during the entire performance. If there is a loud sound that is key to the performance create a sign that the audience will recognize meaning there will be a loud sound and to use their sensory behavior strategy. Auditory sensory processing is reported to be one of the most significant sensory processing disturbance as stated by Gee, Thompson, and St John in their study, *Efficacy of a Sound-based Intervention with a Child with an Autism Spectrum Disorder and Auditory Sensory Over-responsivity* (2013). The study found that a 7-year-old girl diagnosed with moderate autism who used a 10-week sound-based auditory stimulation method (listening to different sounds) decreased self-stimulating behaviors (Gee, Thompson, & St John, 2013). Based on these findings, another way to prepare the audience is to allow them to have access to sample sound bits so they are prepared for the sounds during the performance.

Other accommodations to utilize during a sensory friendly performance would be preferred seating. Families may call ahead and request seating that would be most comfortable for their child. During the performance allow the individuals to have access to manipulative objects such as brushes, stress balls, small stuffed animals, or other small sensory items. This will ensure the individual will be able to get the sensory input they need during the performance. Somewhere else in the theatre create a break room. The break room can include items such as beanbags, medicine balls, therabands, blankets or other pieces of fabric with different textures,



coloring books, and crayons (Biel & Peske, 2009). Creating a theatre and performance that is sensory welcoming for the families and their children will allow the social experience at the theatre to be positive.

Sensory Processing Disorders are becoming prevalent among children and adults today. Creating social experiences for these individuals is important to allow the individuals to not feel secluded because of their diagnosis. Sensory friendly performances are a new and exciting experience for individuals with disabilities. Sensory friendly performances allow growth within the community and for the families. Temple Grandin states, “As a person with autism and sensory processing problems, I have always experienced the world differently” (Biel & Peske, 2009). Creating experiences that are sensory friendly will allow these individuals to experience the world in ways that best for them.

Many theatres throughout the country have adapted musicals and concerts to produce a ‘Sensory Friendly’ performance that can be enjoyed by children with and without special needs. (Boyle, 2013) Including children and young adults with disabilities in the community has multiple benefits, including but not limited to: increased sense of belonging, increased social skills, and awareness and curiosity about the differences between individuals. (Jordan-Downs, 2016) However, the buzzword of ‘inclusion’ is often times easier said than done in many typical situations, especially with a child who may look like their typically developing peers on the outside, but possessing a unique set of challenges related to their disability. According to the article, ‘Sensory Processing Difficulties, Behavioral Problems, and Parental Stress in a Clinical Population of Young Children’ found in *The Journal of Child & Family Studies* 22(7), children with difficulty regulating sensory input can present in ways such as, but not limited to: needing high levels of sensory input to register the sensation, repeated behaviors such as pounding or

crashing, and shying away or intensively reacting to loud or startling noises. (Dunn, 2007, as cited by Gourley, Wind, Henniger, and Chintz, 2013) Due to this sensory processing difficulty, attending a conventional, live performance of the theatre may be a stressful and unwelcome environment. Additionally, children and adults on the autism spectrum can have varying degrees of intellectual ability, which may make certain conceptual content found in a theatre performance difficult to comprehend. (Frazier-Robinson, 2015) For these reasons, it is clear that a sensory friendly performance of a play or musical can provide a unique opportunity for children with disabilities to take part in ‘typical’ community and family events. A sensory friendly performance not only makes theatre accessible for all patrons, but it strives to achieve the overarching goal of inclusion being embraced as an attitude in the community.

### **The Role of Theatre in Lives of Children on the Autism Spectrum**

While attending a traditional live performance of the theatre may be difficult for some children on the autism spectrum, the components of theatre have been used to aid children with Autism Spectrum Disorder (ASD) in multiple ways. This makes it easy to understand how theatre and attending performances can positively impact the life of a child with ASD and their family.

**Developing Social Skills** Some children on the spectrum may have difficulty recognizing the emotions of others, which can lead to an inappropriate response. Hurley, 2010, as cited by Kempe, 2014, suggests that witnessing a live theatre performance where children are viewing a character’s emotional journey and other characters’ responses to them can ‘create the same neurological imprint as doing or feeling them oneself.’ Thus, having the chance to attend the theatre can increase a child on the autism spectrum’s ability to display empathy in a socially acceptable way. **Increasing Language Skills** like social skills, language skills may not always be

second nature or typically developing in children with ASD. Creative Dramatics, a strategy for communication development, uses play and make believe to foster the social language development of students with ASD (Van Volkenburg, 2015). It focuses on seven building blocks of drama that aide in development of targeted skills. The seven building blocks are: concentration, pantomime, movement to sounds (dance-a-story), moods and emotions (role playing), voice and diction, storytelling, and playmaking/improvisation. Many of these same components are integral concepts of theatre, which makes a sensory friendly performance innately appropriate.

### **Increased Facial Recognition**

Increasing facial recognition abilities of children with autism can have a positive impact on the social and language skills of children and young adults with ASD. Adding another skill to their repertoire of the norms of conversation and social graces can be not only modeled by viewing theatre, but practiced and implemented in interventions that employ the theatre. The SENSE (Social emotional neuroscience Endocrinology) Theatre Intervention provided an opportunity for children with ASD to be cast in a performance of a musical, paired with a typically functioning peer (Corbett, Gunther, Comins ,Price, Ryan, Simon, & Rios, 2011). The pilot investigation took place in 2009, studying eight children –seven boys and one girl- and their peer buddies. The child with ASD and their peer worked together during rehearsals and also communicated through video chat, rehearsing outside of the normal schedule. The students with ASD showed increased ability to recognize faces and increased social perception at the conclusion of the study (Corbett et.al., p.509).

Clearly, the theatre serves as an adequate intervention for increasing the social, language, and facial recognition skills of children and young adults with Autism Spectrum Disorders. Just

like taking part in the theatre, attending the theatre serves as a prime example of modeling appropriate social behaviors for children with ASD. Therefore, providing opportunities for children with ASD and their families to attend the theatre in a judgment free, accessible environment is a valuable tool in their development.

### **Previewing: A Sensory Friendly Performance's Key to Success**

The Autism Theatre Initiative (ATI) began in October of 2011 to provide an opportunity for children and adults with autism and their families to attend the theatre. ATI offers a planning guide on their website for theatres that are planning on having their own sensory friendly performance, including information on social stories regarding the visit and accommodations made to the actual theatre itself, including family restrooms, modified ticketing and seating, and quiet zones with sensory tools, like fidgets (Autism Theatre Initiative, 2016). Based on the research presented previously, relying on guides for parents, teachers, and/or families to preview components of the story, characters, and concepts can increase the level of enjoyment and success of a sensory friendly performance.

### **Previewing the Story**

Children on the autism spectrum may have difficulty understanding text and speech due to any number of cognitive or developmental delays dealing with communication and social interaction (Randi, Newman, & Grigorenko, 2010). To prepare children with ASD to attend a live theatre performance, a video or text that previews the plot of the story may be helpful in increasing comprehension of the events the audience will see. The Boston Conservatory produced an autism friendly performance of *The Pajama Game* in March 2015, and offered a video that explained the day and the plot of the musical to prepare the audience (Autism-Friendly Performance: *The Pajama Game*, n.d.). It serves as a live action social story, offering a first

person view of the day of the show. The camera enters the theatre, picks up a ticket, takes the elevator, finds their way to their seat, and watches the performance.

This example of priming can be used to familiarize the child with the play or musical performance without giving too much away (Cammuso, K, n.d.). Reviewing startling moments or those that are unfamiliar can help avoid a situation in which the audience member feels overwhelmed or uncomfortable. ATI employs this strategy for an upcoming sensory friendly performance of *The Kind and I* to be held in April of 2016. The site lists a few bullet points under the heading, 'Warnings,' including a primer of a large ship coming toward the audience and a character being whipped. (Autism Theatre Initiative, 2016). These strategies aim to prepare children with autism and their families for what is coming, but without revealing too much of the plot, leave the excitement of seeing a story played out live.

### **Previewing the Characters**

Another strategy to be used while preparing audiences to attend a sensory friendly performance is previewing the characters. As previously suggested children and adults with ASD may have difficulty with facial recognition and understanding emotions (Corbett et. Al, 2011). A primer featuring the photographs of the actors in costume could assist audience members in recognizing the characters in the play or musical, and therefore, comprehend more of the story they are seeing. Paper Mill Playhouse offers a downloadable version of the character primer on their website for a production of *Charlotte's Web* (Autism-Friendly Performances, n.d.). It gives detailed illustrations and drawings of the characters from the popular edition of the book, juxtaposed with photographs of the actors in character.

Additionally, filming the actors in character displaying different emotions may help audience members not only recognize faces of actors, but feelings. Emotional recognition

training using videos has been used to increase situation-based emotional recognition in children with ASD (McHugh, Bobarnac, & Reed, 2011). Making videos of the actors describing their characters in certain situations and then labeling their emotions may help increase the understanding and enjoyment of the audience member with ASD.

### **The Final Product**

When the audience is prepped, the accommodations are made to the lights, sound, and visual effects, and the welcoming environment is created, a sensory friendly performance can be an amazing experience for a child or adult with autism and their family. Harry Smolin, a 16 year old on the autism spectrum serves as the ATI's consultant for their autism friendly performances. He says, "One of the biggest problems I have is that I don't like the unexpected. The more information you give me ahead [of time], the less likely it is that anything will upset me....If the show is going to start five or more minutes late, you should make an announcement and tell the people not to worry" (Visanathan, 2015). Philip Dallmann, coordinator of ATI's sensory friendly performances, notes that it is important to never change the script, and strive to modify something like an effect before taking it out completely. Making sensory performances accessible is not only important to the development and social growth of a child or adult with autism, but also for their families. Michael Rosen, the executive vice president of strategic communications at Autism Speaks, says that when families with a member on the autism spectrum do 'typical' familial things, like outings to the theatre, there is a level of stress that is reduced for the family (Visanathan, 2015). Providing a nonjudgmental environment for families to enjoy each other and something as transformative as the theatre is an invaluable asset.

### **Defining Social Stories**

According to *Decreasing Disruptive Behaviors of Children with Autism*, a social story is a short story that is written in a child-specific format describing a social situation, person, skill, event or concept in terms of relevant cues and appropriate responses (Scattone, Wilczynski, Edwards & Rabian, 2002). Social stories are comprised of short, clear-cut sentences and appealing images (illustrations or actual real images). Social stories are one way to teach children with developmental disabilities appropriate social behaviors and interactions, increasing the likelihood of better performance across educational and vocational settings (Hagiwara & Myles, 1999). Through the use of pictures and sentences, social stories instruct individuals with autism or other developmental disorders on appropriate social behaviors and interactions in various settings. Social stories are used as a tool to help individuals reinforce positive behaviors in a given setting.

### **The Guiding Principles of Social Stories**

Gray and Garand (1993) introduced the implementation social story method to the field of special education (Kuttler, Myles & Carlson, 1998). In 1998, Gray composed a specified set of guidelines regarding the construction of social stories. Gray believed that all social stories should consist of three different types of sentences: descriptive, perspective and directive sentences. Social stories consist of clear text that accurately describes the specific settings, the participants and their desired behaviors. The text should describe what people do in a given situation, why they are doing it and when or where the event will occur and lastly, what specific persons will be involved in the situation. In addition, Gray also mentions how social stories also provide the participants with a sense of perspective. Perspective sentences describe the thoughts and feelings of other individuals (Scattone, et al. 2002). In other words, social stories give individuals with autism the opportunity to observe how their behaviors can have a positive effect

on others around them. Gray mentioned how the text should directly list the responses a student is expected to provide in a scenario. Social stories should include one directive sentence for every two to five descriptive and/or perspective sentences (Scattone, et al. 2002). A set of concise, meaningful and directive text is the key to constructing effective social stories.

### **Who uses Social Stories?**

Social stories are most appropriate for students who are diagnosed with Autism Spectrum Disorders. Social story participants are likely to display targeted behaviors that can cause harm to themselves or others. Social stories can help teach routines or student adjustment to routine changes (Hagiwara, et al. 1999). Some participants utilize social stories to help transition into new, challenging experiences.

### **The Formats of Social Stories**

The social stories intervention can be presented in a variety of formats including, but not limited to, musically-adapted, “Question and Answer,” picture schedules and multimedia social stories. The rationale for the integration of the musical component comes from research suggesting that students with autism may prefer auditory (musical) forms of stimuli to both verbal and visual (Brownell, 2002). There has been significant evidence that supports the idea that musically-adapted social stories are able to increase individuals’ attention, repetition and participation. Musically-adapted social stories involve the authors composing original music for each story using the story sentences for lyrics. Afterwards, the social story is either read or sung to the student(s).

Besides the musically-adapted social story, there are also social stories presented in the “Question and Answer” format. In one particular study, the representatives of the National Autistic Society and the Learning and Participation Officer from the Oxford Playhouse



implemented a set of social stories pertained specifically to *Jack and the Beanstalk*. The pictures showed the front of the building, the foyer, smiling assistants in the box office and the auditorium and words of guidance (Kempe, 2014). An example of the social story included a question written in bold print (i.e. Are there rules for how to behave?) and then below was three or four sentences of guidance (i.e. You can wear whatever you are comfortable in).

In addition to the “Question and Answer” format, there are also picture schedule social stories. A picture schedule is a visual communication tool using drawings or photographs to convey a sequenced order of events or situations (Ideishi, et al. 2014). The images located in a picture schedule social story may be either hand-drawn illustrations or real photographs taken of the setting, people and behaviors. Picture schedule social stories are designed to help the participants anticipate the time, space and sequence of a particular event(s).

Another kind of social story that is commonly utilized is a multimedia social story intervention. The multimedia social story intervention embodies the characteristics of social stories in a structured, consistent and attractive presentation with ample visual stimuli and sound made possible by the computer system (Hagiwara et al. 1999). The students utilizing the multimedia social story intervention must possess basic listening, written language and fine motor skills (in order to control the mouse of the computer).



### Process of Planning a Social Story

According to Brownell, social stories consist of primarily descriptive and perspective sentences since the primary goal of the story is to provide information rather than instructions. Social stories are comprised of both directive, descriptive, perspective and control sentences to promote desired behaviors. Brownell specifically discusses the guidelines in producing, implementing and evaluating social story programs. The first step is to identify a target behavior or problem situation for social story intervention (Brownell, 2002).

There are some social stories that are designed to help participants overcome target behaviors for change. Jon, a fifteen year-old student who was found staring at females inappropriately was introduced to his social story one-on-one by his teacher (Scattone et al. 2002). After reviewing the social story a few times, Jon's teacher asked him a series of predetermined questions directly related to the content of the story. Then, Jon's teacher propped his social story alongside the blackboard for easy access throughout the day (Scattone et al.

2002). Although Jon experienced difficulty accessing his story freely, he still demonstrated significant reduction in his targeted behavior. Throughout the intervention phase of the study, Jon's staring averaged 66.9% of intervals (range 50-85%) during the baseline period and was reduced to an average of 18.3% of intervals (range 0-58%) (Scattone et al. 2002).

Social stories have also been proven effective in preparing individuals for a series of new events or procedures. In one particular study, for example, a seven year-old male student named Jake, had difficulty washing his hands in three settings: before going to the resource room, before lunch and after recess (Hagiwara, et al 1999). After Jake had the opportunity to review his social story alongside his teacher, he was asked to read and review his story twice a day. One day after the introduction of the multimedia social story program, the participant's performance improved from 75% to 83% and was maintained over 6 consecutive days (Hagiwara, et al. 1999). Jake's hand washing performance reached 100% accuracy in completion on the last day of intervention in the before-morning snack and before-lunch settings.

### **Designing Social Stories**

According to Brownell, designers should write a social story using descriptive, directive, perspective and control sentences. Descriptive sentences in a social story define the setting and specific people involved in the situation or event. The text should describe what the people are doing and why. Jon was a student who constantly stared at females; his social story consisted of descriptive sentences including, 'There are a lot of girls on the playground and in the cafeteria' (Scattone et al. 1999). Jon's social story consisted of directive sentences including, 'It's OK to look at girls and 'I will count slowly to two and then I will try to look at something else until I slowly count to ten' (Scattone et al. 1999). Directive sentences help students identify appropriate and expected responses in a given situation. Perspective sentences are statements that describe a

person's physical desires as well as their thoughts, feelings and motivations (Brownell, 2002). Jon's social story consisted of perspective sentences including, 'When I look at a girl for a long time, she may get mad or sad' (Scattone et al. 1999). Perspective sentences are intended to help students realize how their behaviors can negatively or positively affect those around him or her.

Control sentences are statements written by a student to identify strategies the student may use to recall information in a social story, reassure him, or define his own response (Brownell, 2002). Howard was a student who was found screaming during class. His social story featured control sentences including 'Miss Anne will usually help me if I ask for help' (Scattone et al. 1999). Control sentences are intended to provide students with both guidance and reassurance from other people when problems take place.

### **Implementing a Social Story**

For social stories to be most effective, they should be individualized for each student (Hagiwara, et. al 1999). During most intervention phases, instructors and/or parents introduce the social stories to the child on an individualized, one-on-one basis. Jon, a student who displayed tantrum behaviors had his social story read to him by his teacher (Kuttler, et al. 1999). Depending on the student's skill level, the child may prefer to have the stories read aloud or independently.

During the intervention phase, the teachers (or teacher's aides) read the social story and assessed comprehension by asking the participants predetermined sets of questions related to the first time the interventions were introduced (Scattone, et al. 2002). In Kenny's social story, a seven year-old whose target behavior was tipping his chair backwards, social story featured comprehension questions including, 'Where should all four legs of my chair be?' and 'When I sit in the chair, should I keep all four legs of the chair on the floor?' (Scattone, et al. 2002).

After the student is given the opportunity to answer the comprehension questions at the end of the text, he or she needs to review the story on a daily basis. The respective social stories accompanied the student to the activity and as soon as one of the targeted behaviors occurred, the student is asked to refer to the social story to review appropriate behaviors (Kuttler, et al. 1988). A social story should be placed in a location where the student can access it freely when needed. Jon was a student who has displayed tantrum behaviors. His social story was placed everyday on his desk so that he can gain access to his story during the difficult transition activities (Scattone et al. 1999).

### **Social Stories and Live Theater**

Social stories are specifically designed and can be implemented to prepare individuals for upcoming events. An example of these new events could be attending a live theater production. For many families, the idea of accompanying their child to a live theater production can be both a stressful and scary experience. Watching a film is a passive experience, whereas live theater invariably involves interaction between the performers and the audience, either implicitly or, as in the case of panto, explicitly (Kempe, 2014). Unlike viewing a movie, a live theater production exposes audience members to the actors right in front of them.

People with sensory, social and learning disabilities have the capacity to participate in a range of community activities when provided with the opportunity and appropriate supports (Ideishi, et. al 2013). Social stories have the capability to help students with autism spectrum disorders become familiarized with live theater protocol, the visual aspects of theater and the accommodations they will receive at the event. The category of live theater protocol focuses on regulations people need to follow. For instance, The New Victory Theater permits students with

autism to use ear defenders or a particular fidget that a child prefers to use during the theater performance (Autism-Friendly Performances 2014).

Another part of a social story for students with autism spectrum disorders should focus on the visual aspects of the theater trip. They contain pictures and details of the different characters and an outline of the storyline. An example of a social story that prepares children for a relaxed theater performance included the line, ‘Dame Darcy Trott is Jack’s mother and she owns a dancing school’ (Kempe 2014). In addition to character descriptions, social stories can also inform students of the aspects of their physical surroundings. A social story that prepares students for a relaxed theater performance may mention lines including ‘When a show is about to begin, the music will start and the lights will dim’ (Kempe 2014).

Besides providing character and theater descriptions, the social stories provide the students with a basic overview of the accommodations available to him or her. The social story provided by the New Victory Theater mentions in the text how, “If I need a break during the show, I can ask one of my parents or grownups that I am with if they can take me” and that, “There are open spaces in the hallways or in the lobby area where I can go for a walk or sit in a quiet corner” (Going to the New Victory Theater, 2014). Effective social stories keep the students informed of what services and opportunities they will receive throughout the event.

Live theater performances are one of the many events students can participate in with the accompaniment of social stories. Social stories can inform students of the details of upcoming events and as a result, reinforce appropriate behaviors. When designed and implemented to the students’ needs, social stories can help students learn social skills to help them succeed in whatever experiences they will encounter throughout their lives.

## Reference

- (2014). What to expect at an autism-friendly performance. *The New Victory Theater*. Retrieved from <http://www.newvictory.org/autism>
- Autism-Friendly Performance: The Pajama Game. (n.d.). Retrieved March 28, 2016, from <https://www.bostonconservatory.edu/pajama-autism>
- Autism-Friendly Performances. (n.d.). Retrieved March 28, 2016, from <http://papermill.org/about-us/outreach/autism-programs.html>
- Autism Friendly Spaces, Inc. (2014). *Going to The New Victory Theater!* [Pdf Social Story Narrative]. Retrieved from [http://www.newvictory.org/Victory/media/Images/BoxOffice\\_VisitorInfo/NV\\_SocialStory\\_NoInt.pdf](http://www.newvictory.org/Victory/media/Images/BoxOffice_VisitorInfo/NV_SocialStory_NoInt.pdf)
- Autism Theatre Initiative. (2016). Retrieved March 12, 2016, from <https://www.tdf.org/nyc/40/Autism-Theatre-Initiative>
- Biel, L., & Peske, N. (2009). *Raising a Sensory Smart Child: The Definitive handbook for Helping Your Child with Sensory Processing Issues*. New York, NY: Penguin Group.
- Bobbitt, M.J., Carling, L., Clark, J., Cooney, L., Fratantoro, C., Jirikowic, T., Marz, C., Philips, D.B., Quinn, T., Reiter, A., Taylor, J.P., Wakeford, L. & Whalen, M. (2013). Sensory friendly programming for people with social & cognitive disabilities: A Guide for performing arts settings. *The International Organization on Arts and Disability*, 2-16. Retrieved from <https://www.kennedy-center.org/accessibility/education/lead/SensoryGuidebook.pdf>
- Boyle, K. (2013, January 18). Kennedy Center offers 'sensory-friendly' concerts for children with special needs. Retrieved February 25, 2016, from <https://www.washingtonpost.com/>

entertainment/music/kennedy-center-offers-sensory-friendly-concerts-for-children-with-special-needs/2013/01/17/fee66020-5f29-11e2-9940-6fc488f3feccd\_story.html

Brownell, M.D. (2002). Musically-adapted social stories to modify behaviors in students with autism: Four case studies. *Journal of Music Therapy*. XXXIX. (2). 117-144. Retrieved from [http://www.chinamusictherapy.org/file/file/doc/Musically%20Adapted%20Social%20Stories%20to%20Modify%20Behaviors%20in%20Students%20with%20Autism\\_%20Four%20Case%20Studies.pdf](http://www.chinamusictherapy.org/file/file/doc/Musically%20Adapted%20Social%20Stories%20to%20Modify%20Behaviors%20in%20Students%20with%20Autism_%20Four%20Case%20Studies.pdf)

Cammuso, K., Ph.D. (n.d.). Inclusion of Students with Autism Spectrum Disorders. Retrieved March 12, 2016, from <http://www.bradleyhasbroresearch.org/Inclusion-of-students-with-autism-spectrum-disorders.html>

Corbett, B. A., Gunther, J. R., Comins, D., Price, J., Ryan, N., Simon, D., & ... Rios, T. (2011). Brief Report: Theatre as Therapy for Children with Autism Spectrum Disorder. *Journal Of Autism & Developmental Disorders*, 41(4), 505-511. doi:10.1007/s10803-010-1064-1

Frasier-Robinson, M. (2015). Autism Spectrum Disorder. *Reference & User Services Quarterly*, 55(2), 113-117.

Gee, B.M., Thompson, K., & St John, H. (2013). Efficacy of a Sound-Based Intervention with a Child with an Autism Spectrum Disorder and Auditory Sensory Over-responsivity. *Occupational Therapy International*, 21, 12-20.

Gourley, L., Wind, C., Henninger, E., & Chinitz, S. (2013). Sensory Processing Difficulties, Behavioral Problems, and Parental Stress in a Clinical Population of Young Children. *Journal Of Child & Family Studies*, 22(7), 912-921. doi:10.1007/s10826-012-9650-9

Jordan-Downs, K. (2016). A Journey Towards Inclusion. *Exchange* (19460406), (227), 18-21.



- Hagiwara, T. & Myles, B.S. (1999). A Multimedia social story intervention: Teaching skills to children with autism. *Focus on Autism and Other Developmental Disabilities*. 14(2). 83-95. Retrieved from [https://www.researchgate.net/profile/Brenda\\_Myles/publication/245923007\\_A\\_Multimedia\\_Social\\_Story\\_InterventionTeaching\\_Skills\\_to\\_Children\\_with\\_Autism/links/5532f9f10cf27acb0deda69c.pdf](https://www.researchgate.net/profile/Brenda_Myles/publication/245923007_A_Multimedia_Social_Story_InterventionTeaching_Skills_to_Children_with_Autism/links/5532f9f10cf27acb0deda69c.pdf)
- Kempe, A.(2014). Developing social skills in autistic children through ‘relaxed performances.’ *National Association for Special Educational Needs*. 29(3). 261-274. Retrieved from [https://www.researchgate.net/profile/Andy\\_Kempe/publication/266025693\\_Developing\\_social\\_skills\\_in\\_autistic\\_children\\_through\\_Relaxed\\_Performances/links/54da14d10cf24647582057f4.pdf](https://www.researchgate.net/profile/Andy_Kempe/publication/266025693_Developing_social_skills_in_autistic_children_through_Relaxed_Performances/links/54da14d10cf24647582057f4.pdf)
- Kuttler, S., Myles, B.S. & Carlson, J.K. (1999). The Use of social stories to reduce precursors to tantrum behavior in student with autism. *Focus on Autism and Other Developmental Disabilities*. 13(3). 176-182. Retrieved from [https://www.researchgate.net/profile/Brenda\\_Myles/publication/245922871\\_The\\_Use\\_of\\_Social\\_Stories\\_to\\_Reduce\\_Precursors\\_to\\_Tantrum\\_Behavior\\_in\\_a\\_Student\\_with\\_Autism/links/54ad64ef0cf24aca1c6f30d0.pdf](https://www.researchgate.net/profile/Brenda_Myles/publication/245922871_The_Use_of_Social_Stories_to_Reduce_Precursors_to_Tantrum_Behavior_in_a_Student_with_Autism/links/54ad64ef0cf24aca1c6f30d0.pdf)
- McHugh, L., Bobarnac, A., & Reed, P. (2011). Brief Report: Teaching Situation-Based Emotions to Children with Autistic Spectrum Disorder. *Journal Of Autism & Developmental Disorders*, 41(10), 1423-1428. doi:10.1007/s10803-010-1152-2
- Moyes, R. (2010). *Building Sensory Friendly Classrooms: To Support Children with Challenging Behaviors*. Arlington, TX: Sensory World.

- Orsmond, G.I., Shattuck, P.T., Cooper, B.P., Sterzing, P.R., & Anderson, K.A. (2013). Social Participation Among Young Adults with an Autism Spectrum Disorder. *Journal of Autism & Developmental Disorders*, 43, 2710-2719.
- Randi, J., Newman, T., & Grigorenko, E. L. (2010). Teaching Children with Autism to Read for Meaning: Challenges and Possibilities. *Journal Of Autism & Developmental Disorders*, 40(7), 890-902. doi:10.1007/s10803-010-0938-6
- Scattone, D., Wiczynski, S.M., Edwards, R.P. & Rabian, B. (2002). Decreasing disruptive behaviors of children with autism using social stories. *Journal of Autism and Developmental Disorders*. 32(6). 535-542. Retrieved from [https://www.researchgate.net/profile/Susan\\_Wilczynski/publication/10928813\\_Decreasing\\_Disruptive\\_Behaviors\\_of\\_Children\\_with\\_Autism\\_Using\\_Social\\_Stories/links/547f26ca0cf2de80e7cc770b.pdf](https://www.researchgate.net/profile/Susan_Wilczynski/publication/10928813_Decreasing_Disruptive_Behaviors_of_Children_with_Autism_Using_Social_Stories/links/547f26ca0cf2de80e7cc770b.pdf)
- Sicile-Kira, C. (2014). *Autism Spectrum Disorder: The Complete Guide to Understanding Autism*. New York, NY: Penguin Group.
- The King and I. (n.d.). Retrieved March 28, 2016, from <https://www.tdf.org/nyc/145/The-King-And-I>
- Tomchek, S.D., & Dunn, W. (2007). Sensory Processing in Children With and Without Autism: A Comparative Study Using the Short Sensory Profile. *American Journal of Occupational Therapy*, 61, 190-200.
- Van Volkenburg, J. B. (2015). Reaching Children with Autism Spectrum Disorders Using Creative Dramatics: The Building Blocks Model. *Dimensions Of Early Childhood*, 43(2), 13-20.

Viswanathan, V. (2015, April 6). Making Theatre Autism Friendly. Retrieved March 12, 2016, from <http://www.theatlantic.com/health/archive/2015/04/making-theater- autism friendly/388348/>