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# The Use of Theatre to Develop Social and Communication Behaviors for Students with Autism Spectrum Disorders: A Preliminary Investigation

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**Abstract**

Social and communication behaviors are often a focus of instruction for individuals with Autism Spectrum Disorders (ASD). A theatre rehearsal and production process is challenging and joyful work that nurtures the development of social and language skills. This study evaluated and described social and language behaviors for students with ASD both before and after a 10-week theatre experience. The results indicated that, when compared with a control group, the students with theatre experiences had significant and positive changes in the development of social and language skills. Most particularly, these students had significant improvement in Social Responsiveness, acknowledgement of the Perspective of Others, and Participation and Cooperation. The theatre experiences led to positive changes in social and communication behaviors for students with ASD.

## Introduction

Understanding the thoughts and feelings of others presents a challenge for individuals with Autism Spectrum Disorders (ASD). The ability to understand the Perspective of Others, referred to as theory of mind [1], underlies all social interactions. This challenge in ASD can prevent participation in social routines, meaningful conversations, group activities, and engagement in behaviors that indicate a willingness to cooperate, collaborate, and show concern for the well-being of others. The inability to understand the Perspective of Others results in social and communication problems and is often considered a primary deficit in ASD. Therefore, the improvement of social skills is often a focus of instruction for individuals with ASD [2-8].

## Theatre and ASD Connection

In recent years, there has been an interest in using theatre activities to improve the social and communication challenges that occur with ASD. Although traditional educational and treatment methods teach valuable skills, it is possible that theatre experiences offer more opportunities for socialization by virtue of theatre production requirements. For example, acting a part involves conveying to the audience how a character is feeling and thinking. In this way, acting can be used to teach emotion recognition, emotion expression, nonverbal behaviors and gestures, listening skills, eye contact, conversation skills, and strategies to handle social situations. Other aspects of theatre such as set design, staging and choreography, and lighting also rely on social and language skills that lead to collaboration, compromise, and cooperation. Theatre may utilize the strengths of some students with ASD because it is highly structured, with prescribed lines and movements that require repeated practice. Activities associated with creating theatre can provide a backdrop for helping students with ASD have purposeful and meaningful experiences. Therefore, theatre-based experiences may be especially beneficial when working with students who have ASD [9-11].

Theatre is considered a safe, supportive community [12], a place where individuals can try new things and make mistakes without serious consequences. For many, theatre is also inherently fun and motivating. The personal success and enjoyment that accompany theater activities are important aspects of life that are often minimized in traditional academic settings for individuals with ASD. For these individuals, theatre activities may have the potential to develop social skills including gestural communication, verbal expression, interest in and concern for the well-being of others, and collaboration with group members to achieve a common goal. In all these ways, theatre may be a valuable paradigm for providing support for individuals with ASD.

Several theatre programs have involved young individuals with ASD. These programs have been developed throughout the U.S. and include, most notably, The Miracle Project (Santa Monica, CA), founded and led by Elaine Hall; the project achieved wide recognition in 2008 through an Emmy Award-winning HBO documentary that profiled five young Miracle Project participants. Other programs include the Florida Repertory Theatre (Fort Myers, FL), Des Moines Playhouse, Phoenix Theatre (Phoenix, AZ), and the Red Kite Project (Chicago Children's Theatre). Parents, eager for help with social skills, take advantage of these creative opportunities. Sparked by community interest in drama and theatre activities for children with ASD, several researchers have investigated the claims that this is a useful instructional technique. To date, three studies have reported on results of incorporating theatre activities and drama games in intervention for children and adolescents with ASD. Lerner et al. [10], used dramatic training activities to improve social skill behaviors in adolescents with high-functioning ASD, including Asperger syndrome. The Sociodramatic Affective Relational Intervention (SDARI), modified from an earlier program by [9], was used to present drama activities. This pilot program included nine participants who completed a six-week summer program and eight controls who were matched for diagnosis and served as a comparison group. SDARI involved dramatic training activities such as gibberish, in which one member of the group

speaks nonsense sounds instead of words while using body language to show how to perform a common task. Another group participant must translate the gibberish into words for others. The researchers employed several measures to assess change in behaviors. Parental reports comprised some of the measures and included the Social Skills Rating System (SSRS), [13] which indicated a significant increase on the Assertion subscale. The other significant finding was from the Diagnostic Analysis of Nonverbal Accuracy-2 (DANVA2), [14], a test of ability to read nonverbal cues in faces, tone of voice, and postures. Results from the DANVA2 indicated a significant increase in correctly identifying emotions in adult voices. This study also found evidence that participants were able to generalize what they learned and were able to maintain skills beyond the treatment period.

In another study, Minne et al. [11], used the Social Competence Intervention Program For Young Children (SCIPYC), developed by the authors and based on a similar program by Guli et al. [15], but modified to include younger children. Five children, 6-7 years old, participated in SCIPYC, which was conducted for 16 sessions, two 1 ½ hour sessions per week for eight weeks, and treated deficits in nonverbal communication through socio-dramatic play activities, cooperative games, and interactive discussions. Qualitative results from parent and child interviews indicated that children had positive changes in awareness of others, awareness of self, sense of connectedness/relatedness, developing self-confidence and leadership, and regulating negative emotions.

Guli et al. [16], implemented the Social Competence Intervention Program (SCIP), developed by Guli et al. [15], to present interactive drama activities to 39 children and adolescents, ages 8-14 years, for 16 sessions. The SCIP emphasizes relationships, emotions, communication cooperation and imagination, in-context learning, and the give-and-take of nonverbal cues. The Behavioral Assessment System For Children (BASC), [17], a parent report measure, and the DANVA2, the nonverbal cue-reading test, were administered to measure progress. Participants showed increases in positive interactions and decreases in solitary play, indicating improved social interaction in a natural setting; these findings were not seen in the control group. The authors concluded that these results provide initial support for the use of drama programs to develop social skills.

Corbett et al. [18], reported on the Social Emotional Neuroscience Endocrinology (SENSE) Theatre, designed by the authors, a unique study in that it incorporated a true production. This study included eight participants with ASD, between the ages of 6-17 years, who were paired with typically developing peers and who performed a musical performance of Disney's The Jungle Book among a cast of 37. SENSE lasted three months, with rehearsals one to four days per week. Activities included modeling, providing a nurturing, fun environment, natural reinforcers, multiple trainers, and video modeling. For video modeling, participants watched pre-recorded videos that demonstrated what they should copy. The authors included several pre-test and post-test measures to assess the effect of theatre experiences for participants. First, four different questionnaires were administered to the parents of the eight participants. Questionnaires were used to investigate their observations of characteristics of ASD, stress, sensory sensitivity, and adaptive functioning. Next, specific subtests from the Developmental NEuroPSYchological Assessment (DNEPSYA) [19]-Memory for Faces, Affect Recognition, and Theory of Mind-were administered as part of this standardized neuropsychological battery. Finally, two biomarkers for stress levels in the ASD population were evaluated, by means of salivary cortisol sampling and oxytocin levels from a blood sample. The results from this study indicated that there were no significant differences between pre-test and post-test parental reports. DNEPSYA results indicated significant differences from pre-test to post-test in Memory for Faces and Theory of Mind. There was a reduction in cortisol values between the start of the first and the end of the middle rehearsals; however, there was not a significant difference in cortisol levels after the final rehearsal, which the authors explained as a result of habituation and improved comfort in the setting. There were no significant differences in oxytocin levels. The authors concluded that there is potential in using theatrical teaching and settings to address challenges in ASD.

These research findings provide support for using theatre to advance social and communication skills in ASD. Therefore, the current study was designed to report on the effect of actual participation in a theatre production designed for adolescents with ASD. New information about the theatre and ASD connection will be obtained from this study with the inclusion of a dependent variable that involved the direct measurement of behavioral changes in social skills as recorded by trained, objective raters. Previous studies have used parental reports and objective measures that do not directly describe social behaviors.

### Purpose of the Study

The study was undertaken to evaluate the effect of theatre experiences on social behaviors for students with ASD. Specifically, the purpose was to describe behaviors of students with ASD before and after participating in a theatre experience, and to compare these behaviors with those of a control group of students with ASD who did not participate in the theatre experience. With this comparison, it was possible to describe changes in social behaviors as a result of theatre experiences.

## Methods

### Participants

Participants in this study included 16 students enrolled in a nonprofit private school that serves students with neurological impairment, including ASD. Eight students, six males and two females, between the ages of 17-21 years (average age 18 years 10 months) and diagnosed with ASD volunteered to participate in the theater experiences. A group of students, eight males, between the ages of 17-20 years (average age 18 years 11 months) and matched for diagnosis of ASD and age, were not involved in the theatre experience, and served as a control group. Participants and controls had verbal ability.

### Theatre Experiences

**Schedule**: Participants engaged in 10 sessions of theatre activities. The sessions were two hours in length and occurred one time a week during the school day. Six of the 10 sessions were conducted at the school and four sessions took place at a professional theatre. Students were transported to the theatre for those sessions.

The leaders of the theatre activities were two professional theatre artists and co-authors of this study. One is the resident director of the professional theatre where activities took place. The resident director directs and choreographs plays as well as teaches theatre to students including individuals with special needs. The other is an actor, director,

and playwright who is also the artist-in-residence at the school the students attend. He teaches drama at that school.

**Content of sessions during the 10 week program**: The theatre program was designed to help students learn about scripts, the rehearsal process, costume design, and scenery construction, as well as to prepare for a final performance. Drama activities, exercises to help students be creative and interactive, were included in the theatre program. The sole focus of the program was on the process of creating theatre. Social skills and functioning were not specifically targeted. The first session was conducted at the theatre; students toured the theatre building and learned about the scene shop, costume shop, and main stage. Students were then introduced to the story and the script; discussion focused on the content of the story. Students received a script and their assigned role (all had a speaking part on stage), and were led through an initial reading of the script. Sessions 2-3 were conducted at the school; students discussed the meaning of words, the content of the story, and the characters. Students were encouraged to figure out what their characters wanted, the means by which characters got what they wanted, and why characters behaved the way they did. These sessions focused on understanding the motivation and perspective of the characters, the meaning of the words used by the characters, and the overall story content. Sessions 4-5 were at the theatre and involved students in making props, construction of scenery, and staging the play. Leaders provided specific instructions on blocking, body-space relationships, voice projection, clear articulation, and cuing. Students learned terminology associated with theatrical productions such as stage right and stage left. Students practiced the script on stage and were expected to have the script mostly memorized. During sessions 6-9, at the school, students discussed aspects of the play and were coached on their roles, including suggestions for improvement. Students were led in a dialogue with specific instructions to give a compliment about another person's performance. The tenth and last session culminated in the production, scenes from The Adventures of Tom Sawyer, performed by the theatre participants in front of an actual live audience (not only parents and friends). A reception provided a celebratory event upon the conclusion of the program. See Appendix A for more details about the sessions.

At times, some students found it difficult to participate productively in the theatre activities. Students who had difficulty or became disruptive were removed from the activity and were able to return when their behavior was under control. Removal from the activity involved taking a walk and talking through the problem with one of the leaders or a supervisor from the school who was also present. Usually disruption occurred with non-structured activities, such as making scenery or props. In the scene shop, students wore earplugs because of the loud equipment noise (standard practice in the theatre). At the beginning of the 10-week program there were more occurrences of disruptive behavior than at the end; it was observed that students did not want to be removed from activities and were able to keep their own behavior in line with expectations.

## Measurement of Social Behaviors

**Rating of Social Behaviors (RSB):** A measurement tool, the Rating of Social Behaviors was developed specifically for this study by the first two authors, both speech-language pathologists with current certification by the American Speech-Language-Hearing Association. The RSB includes 24 social behaviors that are common concerns for individuals with ASD. The selection of the 24 behaviors was the result of consultation with the teaching staff at the school that the participants attended. Twenty-five social and communication behaviors were submitted to the staff, which used the form prior to the theatre experience. Based on feedback provided by the teaching staff, 24 behaviors were selected and described in greater detail. The ratings for each of the social behaviors used a five-point Likert scale indicating occurrence of the behavior in a natural environment as 1=Never, 2=Seldom, 3=Sometimes, 4=Often, and 5=Frequently.

**Measurement Scales and Reliabilities**: The 24 behaviors on the RSB form were divided into four subscales: 1) Language Use and Conversation (conversational responses, initiates conversation, maintains conversation, gestures, and shares experiences); 2) Social Responsiveness (eye contact, greetings, politeness, emotion, accepts praise, response to directions, and humor); 3) Perspective of Others (understanding, interest in others, concern for others, offers help, accepts criticism, and acknowledges the perspective of others); and 4) Participation and Cooperation (takes turns, friendship, shares objects, joins groups, teamwork, and controls temper). Descriptions of these behaviors are presented in Appendix B. These four subscales served as the four primary dependent measures for the study. The reliability of these four subscales was established by using both an inter-rater agreement index (Spearman's r) and a measure of internal consistency (coefficient alpha). The inter-rater reliability for each of the subscales from the RSB rating form was established by comparing the results of the primary rater, Rater A, with the results of a second evaluator, Rater B. Rater A was a staff member at the school, familiar with all the students, but was not involved in the theatre experience and did not know who was a participant in the theatre program. Rater B was also a staff member at the school, familiar with all the students, but was directly involved in the theatre experience and an author of this study.

Prior to the start of the theatre experience, Rater A independently rated all 16 participants using the 24 items on the RSB. Rater B independently rated a random subset of the participants (n=8) on the same 24 RSB items. Ratings were then averaged across each item to calculate a subscale score. The inter-rater reliability for each of the subscales was calculated using Spearman's r, and the results are reported in Table 1.

| Subscale | Inter-rater reliability ($r_s$) | Internal consistency Reliability (α) | Number of items |
|---|---|---|---|
| Language Use and Conversation | 0.75 | 0.88 | 5 |
| Social Responsiveness | 0.73 | 0.81 | 7 |
| Perspective of Others | 0.85 | 0.92 | 6 |
| Participation and Cooperation | 0.78 | 0.8 | 6 |

**Table 1:** Reliabilities for the RSB Subscales.

As indicated, the inter-rater reliabilities were acceptably high, with all subscales having inter-rater reliability indices above 0.70. The results reported in this paper were calculated using only the ratings of Rater A, who was blind to participant condition and not otherwise involved in this study.

Table 1 also presents the internal consistency (Cronbach's alpha) reliabilities for the four subscales as well as the number of items that comprised each subscale. As shown, alpha reliabilities were sufficiently high, with all internal consistency measures at 0.80 or above.

The RSB was used to rate the behaviors of the eight participants and the eight students in the control group at two different times, prior to beginning the theatre experience (Time 1) and immediately following the theatre experience (Time 2).

## Results

Each of the four subscales from the RSB was analyzed in a 2 (Condition: Theatre Participants versus Controls) X (2) (Time: Prior to the theatre experience and immediately following) mixed design ANOVA with Condition as a between-subjects factor and Time as a within-subjects factor. The results for each subscale are discussed in turn below.

The 2 X (2) mixed design ANOVA for the Language Use and Conversation subscale revealed a significant effect of Condition ($F$ (1,14)=16.53), $p$=0.001,($\eta^2$=0.54) where theatre participants showed higher levels of Language Use and Conversation ($M$=4.7, $SEM$=0.18) than non-participants ($M$=3.6, $SEM$=0.18). Neither Time nor the Condition by Time interaction was significant. These results are depicted in Figure 1.

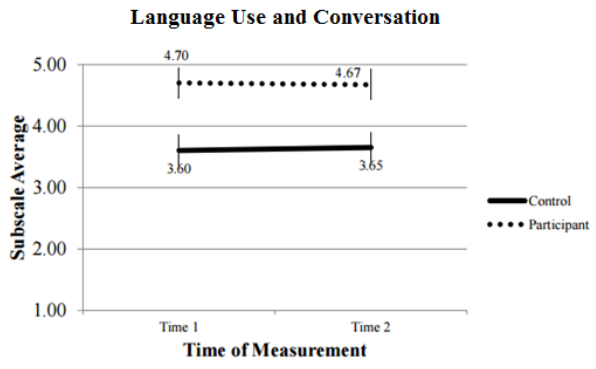


**Figure 1:** Average scores for Participants and Controls, before and after the Theatre Experience, for RSB Subscale Language *Use and Conversation*.

The 2 X (2) mixed design ANOVA for the Social Responsiveness subscale revealed a significant effect of Condition, ($F$ (1,14)=11.95, $p$=0.004, $\eta^2$=0.46), where theatre participants showed higher levels of Social Responsiveness ($M$=4.4, $SEM$=0.17) than non-participants ($M$=3.6, $SEM$=0.17). Although no main effect of Time was found, there was a significant Condition X Time interaction ($F$ (1,14)=4.66, $p$=0.049,$\eta^2$=0.25). As depicted in Figure 2, participants in the theatre program showed a significant increase in Social Responsiveness after having participated in the theatre experience (as compared to Time 1), whereas control students did not show a gain in Social Responsiveness.

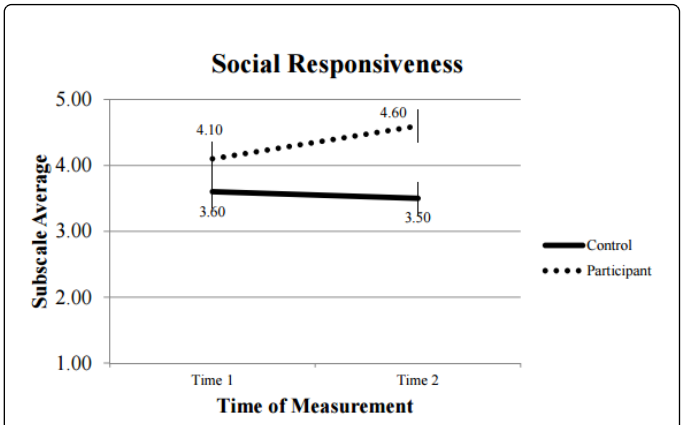


**Figure 2:** Average scores for Participants and Controls, before and after the Theatre Experience, for RSB subscale *Social Responsiveness*.

The 2 X (2) mixed design ANOVA for the Perspective of Others subscale revealed a significant effect of Condition ($F$ (1,14)=12.92, $p$=0.005, $\eta^2$=0.44), where theatre participants showed higher levels on the Perspective of Others subscale ($M$=3.9, $SEM$=0.27) than non-participants ($M$=2.6, $SEM$=0.27). There was also a Time of Measurement effect ($F$ (1,14)=11.06, $p$=0.005, $\eta^2$=44) found, where all students averaged higher levels on the Perspective of Others subscale at Time 2 ($M$=3.4, $SEM$=0.18) as compared to Time 1 ($M$=3.1, $SEM$=0.20). That Time effect, however, was qualified by the finding of a significant Condition X Time interaction ($F$ (1,14)=5.29, $p$=0.037, $\eta^2$=0.28). As depicted in Figure 3, it was predominantly the participants in the theatre program who showed a significant increase on the Perspective of Others subscale (at Time 2 as compared to Time 1), and not the control students.

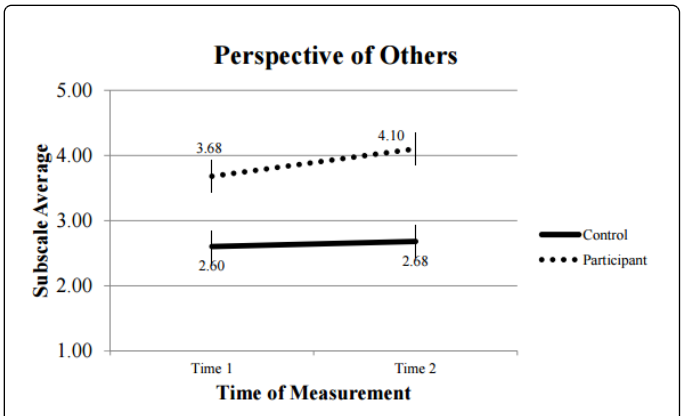


**Figure 3:** Average scores for Participants and Controls, before and after the Theatre Experience, for RSB Subscale *Perspective of Others*.

Finally, the 2 X (2) mixed design ANOVA for the Participation and Cooperation subscale revealed neither a main effect of Condition nor Time. However, there was a significant Condition X Time interaction ($F$ (1,14)=4.55, $p$=0.051, $\eta^2$=0.24). As depicted in Figure 4, participants in the theatre program showed a significant increase in Participation

and Cooperation after having participated in the theatre experience (as compared to Time 1), whereas control students did not show a gain in Participation and Cooperation.

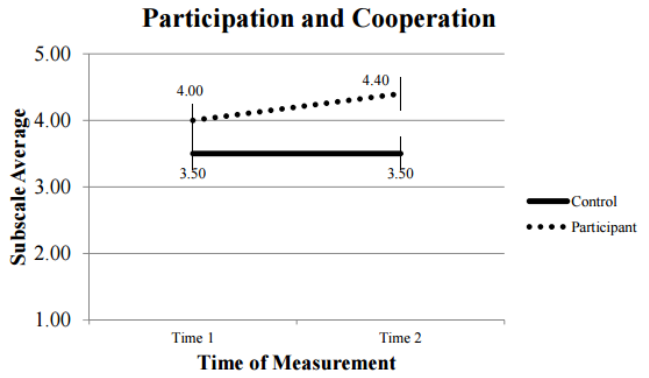


**Figure 4:** Average scores for Participants and Controls, before and after the Theatre Experience, for RSB Subscale *Participation and Cooperation.*

## Discussion

The purpose of this study was to describe the impact of theatre experiences on the social behaviors of students with ASD. Twenty-four social behaviors, identified in a Rating of Social Behaviors (RSB) scale, were divided into four subcategories: 1) Language Use and Conversation, 2) Social Responsiveness, 3) Perspective of Others, and 4) Participation and Cooperation. It should be noted that there were differences between the two groups at the outset of the study. However, the differences became greater between the two groups, indicating a positive change for participants at the end of the 10 week theatre program. In three of the four subcategories, data analysis of the scores for the social behaviors showed significant increases for the participants in the theatre program. In contrast, a significant increase was not observed for the control students.

For Subcategory 1, Language Use and Conversation, the theatre participants had significantly higher scores than the controls. However, the scores for both groups did not increase from the beginning to the end of the experience. The expected increase in scores for the theatre participants may not have occurred because of the overall high scores achieved prior to the beginning of the experience. The high score on the pre-test did not allow for much gain from pre-test to post-test to be realized. There was, essentially, a ceiling effect. In addition, skills in Language Use and Conversation are inherently difficult to assess for adolescents altogether, and it may be that the RSB was not sensitive enough to measure subtle changes. In addition, gains in Language Use and Conversation for adolescents are subtle. It may be that the RSB was not sensitive enough to measure these small changes. The theatre participants' high scores in this subcategory may reflect their comfort level with the language activities required by theatre, and may have been a factor in their decision to volunteer for the theatre program.

For Subcategory 2, Social Responsiveness, theatre participants again had significantly higher scores on the RSB than the controls. In addition, and of most interest, there was a significant increase in the scores of theatre participants from pre-testing to post-testing, while a corresponding increase for the controls was not found. We take this finding as an indication that the theatre experience had a positive effect on the behaviors in the Social Responsiveness subcategory, such as eye contact, greeting, and politeness. Such behaviors enable individuals to engage with others in a positive way, thus making the theatre experience rewarding for the participants.

When Subcategory 3, Perspective of Others, was examined, it was determined that the RSB scores for theatre participants were significantly greater than the scores for the controls. As in Subcategory 2, the theatre participants showed significant increase from pre-testing to post-testing, whereas the controls did not. We argue that this finding provides further evidence that the theatre experience facilitated the social development of students with ASD on important behaviors such as interest in others, concern for others, and offering to help. These behaviors are especially beneficial in a theatre production, as they enable the understanding of a character and that character's motivations.

When Subcategory 4, Participation and Cooperation, was examined, it was determined that a significant difference did not exist between the overall scores of the theatre participants and the controls. This lack of difference was unlike the patterns observed in Subcategories 1-3. However, like Subcategories 2 and 3, the scores of the theatre participants did increase significantly from pre-testing to post-testing, while the scores of the controls did not show a significant increase. This subcategory included behaviors such as taking turns, sharing, and teamwork, all developmentally important behaviors required by the collaborative work of theatre.

It is significant to note that the primary purpose of this program was to provide a theatre experience for the participants that would culminate in an on-stage production. The significant increases in scores on the RSB from pre-testing to post-testing occurred even though the social behaviors under investigation were not specifically targeted or taught. Rather, the behaviors described on the RSB are behaviors expected of typical adolescents and adults and are also critical for cooperative activities, such as those required in a theatre environment.

The theater experience was also joyful and exciting, thus providing motivation for these adolescents to engage in positive, interactive social behaviors. The experience provided a framework for encouraging the participants to consider and examine the feelings, motives, and behaviors of others, thus indirectly helping participants to better understand the Perspective of Others (Theory of Mind). Thus, this theatre experience, by virtue of the inherent social requirements, was useful in developing important social and communication behaviors in students with ASD.

It is interesting to note that the leaders of this theatre experience were theatre-educated and experienced theatre professionals. Although they had sensitivity to individuals with ASD and some experience in teaching students with special needs, they were first and foremost theatre professionals. Yet the theatre experience that they led resulted in significant increases in social behaviors for individuals with ASD. This is perhaps a reflection of the power of theatre to help facilitate and teach cooperation and recognizing the Perspective of Others, behaviors that are keys to success in social and communication interactions. This finding has significance for educational settings. Along with experiencing other instructional methods, students with ASD may benefit from involvement in theatre, either in mainstream schools or in specifically designed community theatre programs. The skills learned in the theatre setting may generalize to everyday activities.

It is important to recognize that this study is a preliminary investigation into the involvement of adolescents with ASD in a theatre project. This is a report of a project, and as such, there are inherent limitations to a non-experimental design. While random assignment is desirable, it was not possible or ethical when considering the potential benefit of this program with an at-risk population such as students with ASD. Therefore, it was necessary to rely on individuals who were willing to be included and thus random assignment was precluded. Furthermore, there were only eight participants, a small number. Because of these limitations, the results of this study do not lead to firm conclusions about the benefits of theater for students with ASD. However, this study does provide direction for further promising research.

An important aspect of this study was the development of the RSB, a criterion-referenced measure created for the purpose of measuring pre- and post-behaviors. It appeared that, with one possible exception, the behaviors included on this rating form were sensitive to changes in social skills for individuals with ASD. Additional studies are needed to replicate and refine this tool and to corroborate its usefulness.

In summary, the theatre experiences described in this study resulted in significant gains in social and communication behaviors as measured by the RSB. This study provides further evidence that theatre experiences can be beneficial for students with ASD.

## Appendix A: Schedule of the 10-week Theatre Program

### Week 1 (theatre)

- Tour of the theatre that included the scene shop, costume shop, and main stage;
- Students received a copy of the script and their speaking part;
- The story was explained and the students read some parts of their scripts.

### Weeks 2-3 (school)

- Students read their scripts and discussed the content of the story and the meaning of words used by the characters;
- Students discussed the characters in the story to understand the intentions, motivation, and perspective of the characters, and to figure out what the characters wanted, how they got it, and the outcome.

### Weeks 4-5 (theatre)

- Assignment to costume shop to make hats and kites for the play;
- Assignment to scene shop to put a fence together, used as a prop in the play;
- Students learned to stage the play; students were given instruction in blocking, body-space relationships, voice projection, clear articulation, and cuing;
- Students learned terminology associated with theatrical productions, such as stage right and stage left;
- Students focused on audience needs, such as hearing lines clearly, not turning your back to the audience, facial expressions, and tone of voice to convey meaning;
- Students practiced the script on stage and were expected to have the script mostly memorized.

### Weeks 6-9 (school)

- Discuss the play, what is working, what changes need to be made for improvement;
- Discuss how it all fits together;
- Engage in dialogue with specific instruction for everyone to say one compliment about another person's performance;
- Dress rehearsal.

### Week 10 (theatre)

- Performance on the main stage;
- Live audience of theatre staff, teachers, and participant parents and siblings;
- Reception afterward to celebrate the successful performance.

## Appendix B: Social and Communication Behaviors used in the Rating of Social Behaviors (RSB) Form

### Subscale 1: Language Use and Conversation

### Conversational Responses

- Provides a verbal response directly following a question from the instructor
- Provides a verbal response directly following a question from a peer

### Initiates Conversation

- Stays within 3 feet of others while initiating a greeting, asking a question, or making a comment

### Maintains Conversation

- Engages in 3 reciprocal exchanges (6 sentences total)

### Gestures

- Facial expressions match physical gestures

### Shares Experiences

- During conversation, offers personal information

### Subscale 2: Social Responsiveness

### Eye Contact

- When talking to another person, looks the other person in the eye for a count of 3-5 seconds

### Greetings

- Initiates greetings with variations of *Hi, Hello, How are you?*
- Responds to greetings with variations of *Hi, Hello, How are you?*

### Politeness

- Uses *Please and Thank you*
- Stays silent when other people are talking

### Emotion

- Display of emotions is appropriate for the environmental context

### Accepts praise

- Given a compliment, either smiles and/or says variations of *Thank you*

### Response to directions

- When prompted, responds within 10 seconds of request

### Humor

- Laughs, jokes, and finds humor during appropriate situations

### Subscale 3: Perspective of Others

### Understanding

- Notices mistakes of others and says variations of *That's okay, It's not a big deal, We'll try it again*
- Acknowledges personal mistakes and says variations of *I'll keep trying, I'll keep practicing, I'll do better next time, I'll try harder*

### Interest in Others

- Shows verbal expressions of interest in the hobbies and activities of others

### Concern for Others

- Asks others variations of *Are you okay? What's wrong? What's the matter? What's bothering you?*

### Offers Help

- Without prompting, asks others variations of *Do you need help? Can I help you? Do you want me to help you?*

### Accepts criticism

- Looks at the person
- Acknowledges feedback
- Does not argue about criticism
- Accepts responsibility

### Perspective of Others

- Acknowledges different opinions

### Subscale 4: Participation and Cooperation

### Takes Turns

- Waits for turns
- Allows others a turn

### Friendship

- Makes and establishes friendships

### Shares objects

- When asked to share, complies with the request in a gracious way
- Offers to share items voluntarily

### Joins groups

- Enters into group activities without prompting

### Teamwork

- Does their own job completely
- Cooperates with others
- Listens attentively
- Accepts feedback from others
- Shares materials
- Takes turns with others
- Praises the performance of others

### Controls temper

- Identifies negative emotions or behaviors that are difficult to control
- Uses a strategy to help calm self

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