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SUPPORTING COMMUNICATION THROUGH PERFORMANCE: A QUALITATIVE
STUDY ON THE EFFECTS OF MUSICAL PERFORMANCE ON SOCIAL
COMMUNICATION

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ABSTRACT

Pattern behavior is a characteristic quality of many individuals in special populations (American Psychiatric Association, 2000, 2013; Rinehart, Bradshaw, Brereton, & Tongue, 2002). This is typically accommodated through repetitive activities, and the use of routine and structure in daily or weekly activities in order to create an ideal environment in terms of socialization, comfort, and security. Every morning might involve the same dressing, hygiene and eating routine; every week's dinners might follow the same menu (Monday is pasta, Tuesday is chicken, etc.). Some individuals with special needs are comforted by these routines and this predictability of experiences day to day. Without structure or routine, such individuals might lash out due to fear, surprise, or discomfort with unexpected situations (Bishop, Richler, Cain, & Lord, 2007; South, Ozonoff, & McMahon, 2005; Cook, D'Cruz, Masconi, Ragozzino, Shrestha, Sweeney, 2013). Therefore, the use of patterns or routines has become an accepted and widely used adaptation to these individual's activities of daily living. However, the use of performance arts provides an alternative route to addressing this need, satisfying the individual's desire for routine while promoting an acceptance of variability.

Performance arts (such as improvisation, instrumental performance, vocal performance, and dance performance) provide a model for self-expression where a structure and rules are in place, but also allow for individual, unique expression. This model satisfies -- on the surface -- the need for structure and predictable outcomes. However, the model also simultaneously addresses and treats the preference for predictability. Through the use of performance arts in therapy for special populations, a model and structure is put into place, but within such structure there is room for variance and novel creation. This provides an enticing environment for self

expression and novel creation, and a safe place to express feelings in a verbal and physical way, appropriate to the specific activity (Corbett, 2014b; Nelson, 2017).

Performance also can benefit individuals in terms of allowing for expression of feelings, relating verbal and nonverbal expression of feelings, and teaching appropriate avenues of expression. Therefore, when utilized with individuals with special needs, these activities encourage acceptance of novelty, concerning the behavior of others as well as the individual him or herself. This qualitative study of a small group of individuals explored the behavioral changes individuals might identify in themselves, and the changes others witness in these individuals as well. The goal of this study was to answer the initial question: How does the predictable but various structure of music and improvisation promote comfort with novelty -- specifically willingness to participate, initiation of novel activities, and decreased sensitivity to change -- through performance practice and activities?

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Roadmap

The body of this paper will focus on research conducted within the course “Supporting Communication through Performance.” The broad goal was to bridge the gap in research and provide understanding of the results from using music and performance to teach social communication abilities for individuals with and without disabilities. The specific aim of this project was to demonstrate the effects of this practice, how these effects develop over time, and the changes observed in individuals, by both themselves and others in the class.

Music Therapy is a growing field due to its impressive results in teaching applicable skills outside of the session in a fun and unique way. Musical performance has also been used in some therapy settings, and preliminary results suggest it can be effective in teaching a number of interpersonal and intrapersonal skills. Because of this effectiveness, therapy and teaching domains are adopting music into their practices, to help facilitate a fun, effective environment which encourages participation and bolsters confidence.

However, there is little research on exactly *how* music can aid in the achievement of these goals, or which goals this practice is specifically targeting. Therefore, more research is needed to understand exactly what benefits result from using performance in therapy practices. Focusing on communication and social interaction, this study attempts to identify the impacts of music and performance on social communication skills as well as skill in mental flexibility or adaptability, to bridge this gap.

This paper will discuss Gardner’s theory of multiple intelligences. It explores how utilizing an individual’s stronger forms of intelligence to create a therapy program, with that individual’s intellectual strengths in mind, proves fruitful in goal achievement. Of the multiple intelligence forms, this study emphasized musical intelligence and bodily-kinesthetic intelligence

forms. Consideration is given to special populations, including who makes up these groups, common characteristics, and how music and performance therapy could be applicable to these groups, specifically. Finally, this paper will analyze the effects of the use of performing arts as therapy, music therapy, and dance therapy as a practice. This paper shares the research findings on overall effectiveness, as well as preliminary qualitative data suggesting the effectiveness of music therapy and performance within the scope of communication and speech and language.

Chapter 1: Introduction

Gardner

Every person has unique attributes, interests, strengths and challenges. Consequently every person does not learn or demonstrate knowledge in the same way. For this reason, therapy and classroom settings must emphasize these unique attributes, interests, strengths and challenges in individuals to foster optimal growth and achievement. Gardner was a pioneer of this concept with his theory of multiple intelligences. He identified these areas of strengths and challenges as various forms of intelligence. Through his theory he identified three general categories of learners -- visual, auditory, and kinesthetic (Snyder, 1999)-- and nine different ways to think about intelligence, including: linguistic-verbal; logical-mathematical; spatial-visual; bodily-kinesthetic; musical; interpersonal; intrapersonal; naturalistic; and existential (Nolen, 2003). Gardner theorized every person possesses all nine of these forms of intelligence, but to varying degrees of strength.

Traditional classroom or educational settings focus primarily on linguistic-verbal and logical-mathematical forms of intelligence. This limited scope has raised controversy over the years as Gardner's theory has been adopted by supporters. Gardner's supporters argue traditional classrooms are not conducive to achievement for all individuals, especially those who possess strengths in other intelligence forms. Therefore, there has been a call to adopt alternative means of teaching and assessing individuals. These alternative means should be based on an individual's unique intelligence profiles, in hopes of reaching optimal levels of success and goal achievement.

The study described in this paper relies on an educational setting focusing primarily on bodily-kinesthetic and musical intelligences. However, it is important to note that although the

activities and outcomes are primarily focused toward these two types of intelligence, results suggest other intelligence forms are also associated with these tasks and outcomes. For example, musical intelligence has often been associated with logical-mathematical intelligence through patterns of rhythm or song structure and bodily-kinesthetic intelligence focused activities might also aid in improving spatial-visual intelligence (Kezar, 2001; Mettatal & Jordan, 1997). As music typically follows a predictable structure, the rhythm of the song follows a pattern with which individuals with logical-mathematical intellectual strengths identify. Thus, musical and logical-mathematical intellectual strengths typically are both identified in individuals strongest in one form or the other. By working to build one form's strength, the other is also likely strengthened without the need for direct intervention (Snyder, 1999). Likewise, individual with bodily-kinesthetic intellectual strengths typically also have strengths in spatial-visual forms of intelligence, not only possessing knowledge and awareness of how to move an individual's own body but also how that movement affects the space around that individual and his or her environment. Gardner hypothesized that the use of one form of intelligence which is stronger or more advanced can help to increase skills and abilities associated with a different form of intelligence (Armstrong, 1994; Snyder, 1999), utilizing strengths to bolster weaker areas.

Bodily-kinesthetic intelligence concerns an individual's ability to understand the world through his or her own body (Nolen, 2003). This form of intelligence incorporates both fine motor skills and the control of gross motor movements (Snyder, 1999). This intelligence form is typically strong in dancers. Musical intelligence concerns areas of pitch, sound, rhythm and timbre (Snyder, 1999). This intelligence also includes the ability and prowess to convey emotion through music and involves emotional understanding (Nolen, 2003). Although an example of

someone who typically has a strong musical intelligence includes singers, it is important to note musical intelligence does not require verbal communication.

Implementation of Gardner's theory of multiple intelligences into areas of education or therapy thus far has yielded positive results in both confidence in the student and his or her achievement (Owen & Baum, 1988; Gardner & Hatch, 1989; Hearne & Stone, 1995; Mettetal & Jordan, 1997; Kezar, 2001). A more individualized curriculum (created through independent study, experiential learning opportunities, or self-paced learning styles, for example) demonstrates these positive results. Reports from student, teacher, and parent demonstrate increased positivity concerning a student's abilities and increased confidence in the student overall (Mettetal & Jordan, 1997). Instruction according to this theory is designed to help a student develop his or her strengths. This, in turn, fosters the student's confidence to develop areas of intelligence that are more challenging for them. In classroom that implemented this theory, many teachers noted they no longer placed students along a continuum of ability level. Rather, they considered each child according to his or her unique strengths in various forms of intelligence. Additionally, students reported use of this theory in classroom practice helped to broaden the idea of 'being smart' and created a more inclusive definition (Mettetal & Jordan, 1997). The more optimistic and individualized perception of students' abilities by others also played a strong role in developing this confidence.

Use of Gardner's theory of multiple intelligences in a classroom setting not only eliminates the limited scope of focus on mathematical-logical and linguistic-verbal intelligences, but also eliminates other biases found in traditional classroom or educational settings. As noted before, traditional classroom or educational settings in the U.S. include as western-world bias of intelligence only including math and literature. Additionally, the incorporation of

this theory eliminates best-answer bias that there is only one correct way to solve a problem. Finally, implementing Gardner's theory removes testing bias of assessments offered in formats only conducive to certain learners (Kezar, 2001). Implementation of this theory has demonstrated the creation of an environment more conducive to all individual's needs, strengths, and comfortability. Studies have also found instruction designed to help students develop strengths encourages confidence, and the development of confidence coincides with productiveness and willingness to participate in activities an individual finds more challenging (Snyder, 1999). In this study, a safe and encouraging environment that accepts and facilitates use of an individual's strengths or relative challenges in various areas is hypothesized to promote learning in this way; by first creating a situation where an individual feels comfortable, confidence will develop and then achievement will follow.

Special Populations

Autism Spectrum Disorder (ASD) is a pervasive developmental disorder that is lifelong and characterized by atypical language and social development, along with restricted or repetitive behaviors. ASD is considered a neurodevelopmental disability, identified in childhood, and has a prevalence of nearly one in every 68 children (Baio, 2014). Individuals with ASD typically have difficulty in social competence, which hinders the creation and maintenance of social, interpersonal relationships, especially with peers (Krasny, Williams, Provencal, & Ozonoff, 2003; Knott, Dunlop, & Mackay, 2006). This is confirmed by a 2009 statistic which found only about 8% of individuals with ASD reported having reciprocal friendships (Klinger & Williams, 2009). Because social skills are typically a challenge for individuals with ASD, and friendships are so important for adolescent's development, many studies suggest

incorporating peer interaction into therapy for teaching social norms and reciprocal conversation skills (Corbett, 2011, 2014a, 2014b, 2016; Finke, 2016).

This disorder is well-studied in music and dance therapy. Due to the challenges in areas of cognition, emotion, and body, musical performance as a therapy technique seems to align on every level of challenges and goals set for individuals with ASD. Individuals with ASD typically experience impairments in coordinating and maintaining eye contact with speech, demonstrating an interest in the ideas and opinions of others, and recognizing the organic beginning and ending of a conversation (Scharoun, 2014). All of these factors lead to poor reciprocal communication abilities. The insistence on sameness, classified by repetitive or patterned behaviors, coincides with a discomfort in novel situations or with unfamiliar peers. This can typically be understood through increased biological stress or anxiety (Muris et al., 1998; Bellini, 2006; Corbett et al., 2005, 2009; Corbett, 2011, 2014a). In terms of the bodily aspects of this disorder, individuals with ASD typically experience difficulties with both fine and gross motor activities. These challenges are associated with poor planning, organization, and coordination of movements (Glazebrook, Elliot, & Szatmari, 2008).

Down Syndrome (DS) a genetic disorder caused by an extra copy of chromosome 21 (Trisomy 21). The only etiological factor confirmed to be linked to DS is increased maternal age (Hassold & Sherman, 2002), meaning DS can affect any race, geographical location, socioeconomic status, etc.. DS is the most common genetic cause of intellectual disability (Martin, Klusek, Estigarribia, & Roberts, 2009). About 80% of individuals with DS exhibit some level of intellectual disability, but some individuals demonstrate an IQ score within average ranges (Pueschel, 1995; Roizen, 2007). However, individuals with DS characteristically exhibit strengths in visual-spatial processing and perception (Martin, Klusek, Estigarribia, &

Roberts, 2009; Mundy, Sigman, Kasari, & Yirmiya, 1988). Thus, though cognition overall appears impaired, visual-spatial cognition is a relative strength. In this case, individuals with DS likely also exhibit strengths in bodily-kinesthetic intelligence, as the two are commonly associated (reference section on Gardner).

Social competence is typically identified as a strength for individuals with DS. Individuals with DS often exhibit uniquely high social interest, engagement, and affection in their personalities (Moore, Oates, Hobson, et al., 2002; Wishart & Johnston, 1990). Additionally, children with DS appear to form interpersonal relationships in largely the same way as their typically developing peers (Freeman & Kasari, 2002). This is significant to socialization and perhaps plays a role in social competency. Characteristically, within social settings individuals with DS exhibit difficulty initiating and elaborating on conversational topics, as well as challenge initiating repairs of communication breakdowns. However, these individuals typically exhibit relative strengths in staying on conversation topic, producing content-related narratives, and the ability to respond to requests for clarification in order to repair communicative breakdowns (Martin, Klusek, Estigarribia, & Roberts, 2009). Thus, although social cognition and social communication abilities are typically identified as a strength of individuals with DS, there are still areas of social communication in which goals should be set and therapy should focus on improving.

Both of the special populations discussed above involve an impairment in at least one of the following areas of functioning: sensory perception, cognition, and/or physical ability. These abilities play a crucial role in language development, and thus a limitation in any one factor can cause a global delay or deficit in linguistic achievements (Pizzo & Bruce, 2010). Language is also based in joint attention, mutual orientation, and reciprocity (Nelson, 2017), areas often

challenged in individuals with special needs. Finally, as nonverbal communication is often a deficit in individuals who belong to special populations, and nonverbal communicative abilities are predictive of language development, understanding of this skill should be emphasized in treatment, as well (Mundy, Sigman, Kasari, & Yirmiya, 1988). Therapy goals for language and communication should acknowledge the interplay of these multiple factors, and -- just as Gardner suggested with his theory of multiple intelligences -- utilize an individual's stronger skills to aid in achievement in the more challenged areas.

Performance As Therapy

The practice of acting is interactive, and dynamic, incorporating verbal and nonverbal means of communication. Acting incorporates interaction with another person, a fellow actor, as well as to the audience, a third party, promoting clarity of message and intentions. Thus, acting as a therapy or teaching method can be understood to fundamentally enhance attention to, practice of, and motivation toward engaging in reciprocal, social interactions (Corbett, 2014b). Areas of socialization involved in acting specifically include observing, perceiving, interpreting and expressing thoughts and ideas (Corbett, 2014b). Many of these are areas of challenge associated with Autism Spectrum Disorder (ASD), thus theater as a therapy means has been most researched in its association with sociability of individuals with ASD. Theater has been determined to help individuals identify social cues such as facial expressions (McAfee, 2002), develop skills in communication, movement, pretend play, and overall social interaction (Peter, 2003). In theater, an actor is tasked with taking a character's perspective -- his or her intrinsic beliefs and feelings -- and figuring out how to portray these as his or her own. Therefore, this practice is hypothesized to help individuals with ASD learn to take the perspectives of another person, and gain insight to mental states and feelings of other individuals (Corbett,

2014b). As acting contributes to abilities such as social awareness, cognition, communication, perception, and expression, theater practice is growing as a possible therapy avenue for teaching socioemotional functioning to those who are challenged in these processes (Corbett, 2014a). Goldstein (2011) found theater practice to improve empathy and theory of mind skills in typically developing children, spurring others' research into how theater might be used as a therapy technique or teaching tool for social cognition in individuals with special needs, namely, individuals with ASD.

Acting provides a dynamic and supportive environment for individuals to practice understanding and demonstrate the thoughts, ideas, and actions to someone else (Corbett, 2014b, 2016). The practice of theater and acting, thus, is being researched more in depth to understand specifically what practices and skills can be translated from the stage to everyday life. Acting relies on the ability to recognize, identify, integrate, plan, and respond appropriately to dynamic socioemotional situations and information (Corbett, 2014b). Everyday interaction requires these same skills. As core deficits of ASD include reciprocal social communication abilities, flexibility in thoughts and actions, and imaginative play, the practice of acting seems to target these areas specifically and provide a safe and fun environment to practice and facilitate these skills (Corbett, 2011, 2014a, 2014b, 2016; Koch, 2015).

Corbett and colleagues (2011, 2014a, 2014b, 2016) created the SENSE Theater program for individuals with ASD to test this hypothesis. By creating a fun and safe environment for self-expression (with social supports in place), Corbett aimed to increase motivation for individuals with ASD to interact effectively with their typically developing peers in theater practice. Additionally, Corbett's studies aimed to encourage the active learning of direct communication skills, nonverbal communication skills, imaginative play, and overall advancement in individual

learning in everyday life (Corbett, 2011, 2014a, 2014b, 2016). This program was specifically designed to target socioemotional challenges of ASD and utilize well-established behavioral interventions alongside theatrical techniques to assess improvements made by participants over the course of the study. Corbett and colleagues (2011, 2014a, 2014b, 2016) examined the hypothesis that children with ASD would demonstrate improved social interactions with peers and social perception ability, as well as reduced stress response over time. These studies have provided great insight into how specifically theater programs geared toward social-goals for individuals in special populations might impact achievement.

"Social Emotional Neuro-Science Endocrinology" (SENSE Theater) created by Corbett and colleagues (2011) incorporates peer-tutored theater games such as mirroring, imaginative play activities, script reading, role playing, and games incorporating movement with music. The study examined how these activities might impact achievements. Three key components identified that seemed to greatly impact success in individuals with ASD toward achievement of social-goals included peer mediation, active learning, and the context provided through the program which was natural and supportive (Corbett, 2014b, 2016). These three factors incorporated by this theater program appear most impactful for outcomes in social-abilities.

The use of peers as models for the theater program was shown to have a great impact on social-communication abilities of the participants with ASD. Peers came from theater backgrounds and were considered 'experts' in the practice. They also received training in recognizing and understanding key features and behavioral traits of individuals with ASD, and advice on how to work with them (Corbett, 2011, 2016). Peers were then used as models of theater practices and activities, as well as models of acting (in rehearsal as well as through video) concerning the selected show and script. This "active practice" of reciprocal social interaction in

theater practices and through video models was aimed to promote social awareness and facilitate perspective taking in the individuals with ASD. This peer mediation provided the opportunity for individuals with ASD to engage with their peers in a skilled, supportive, and reciprocal way, and these opportunities are hypothesized to be a key contributor to the effectiveness of the theater program (Corbett, 2011, 2016). Indeed, multiple studies by Corbett and colleague indicate the peer-mediated aspect of these theater programs leads to improvements in core social abilities, such as perspective taking, facial processing, social awareness and social cognition (2014a, 2014b, 2016). Significant improvements in social awareness and social cognition demonstrate greater ability of participants with ASD to comprehend and interpret the social meanings from engaging with others. This is a critical skill to everyday social functioning. The inclusion of typically developing peers in the practice of acting and theater was found to significantly contribute to acquisition, maintenance, and generalization of sociability skills in individuals with ASD (Corbett, 2011, 2014a, 2014b, 2016). Peer mediation should be considered when incorporating a program such as this into therapy practice.

Another key factor described by Corbett's studies is that of the environment the theater program created. One of the main goals of the program was to create a safe and encouraging environment for all individuals to participate. Ryan and Patrick (2001) found an environment perceived to be naturally stimulating and supportive encourages participation and motivation far more so than a controlled environment. As restrictive and repetitive behavior is a diagnostic characteristic of individuals with ASD, therapy practices typically suggest the creation of a plan that follows set routines and structures. However, Ryan and Patrick's (2001) research suggests this structure actually discourages motivation and participation, and is not easily generalized to everyday living. Therefore, theater practice encourages individuals of all achievement levels and

developmental needs to participate in effective learning (Corbett, 2011, 2014a, 2014b, 2016). The freedom of a theater environment encourages all individuals to participate, regardless of their level of expertise. The adaptability of theater may be more useful in therapy practice than routine or structured practice, as it mimics the unpredictability of real life and teaches participants to become more comfortable with this variability.

Music Therapy

Musical therapy is an arts-based practice often used in treatment of psychiatric conditions and rehabilitation for neurodevelopmental disorders (Boso et al., 2007). Music is considered to have an intrinsic communication potential (Boso et al., 2007) which is hypothesized as the reason it has the potential for success. This hypothesized success of music therapy may be due to the fun environment created, or the encouragement of self-expression, helping the individual feel more motivated to participate in practice.

There are five types of music therapy, which may be incorporated together or used individually. These types include receptive music therapy (listening to music to elicit responses), compositional music therapy (client is creating novel music), improvisational music therapy (client is creating music *spontaneously*), recreative music therapy (learning to play an instrument and practicing to perform a piece of music), and activity music therapy (incorporating structured musical games created by the therapist) (Accordino, Comer & Heller, 2007; Dileo, 2000; Peters, 2000). Individuals with ASD have been identified to have a special responsiveness toward and interest in musical stimuli (Applebaum, Egel, Koegel, & Imhoff, 1979; DeMyer 1979; Kolko, Anderson, & Campbell, 1980; Rimland, 1964; Sherwin, 1953; Thaut, 1980) and thus therapy techniques incorporating music are hypothesized to be effective in treatment of this population. Studies have found positive impacts of music therapy techniques in individuals with ASD's

prosocial behaviors (Stevens & Clark, 1969), self-expression (Cecchi, 1990; Goldstein, 1964; Mahlberg, 1973), vocal imitation skills, and interpersonal relationships (Goldstein, 1964; Saperston, 1982).

Music therapy (specifically improvisational music therapy) may affect musicality of a client, but this is more of an associated outcome rather than the main focus or goal of treatment. Rather, main goals of music therapy include increased or improved prosocial behavior, attention span, self-expression, spontaneous and intentional communication acts, vocalization skills, and interpersonal relationships (Landry & Loveland, 1989; Wetherby & Prutting, 1984; Attwood, 1984; Kubicek, 1980; Edgerton, 1994). These skills have also been found to translate outside of musical production. Nordoff and Robbins (1977) created the Creative Music Therapy framework, which emphasizes musical improvisation and novel creation to serve as a nonverbal means of communication. In a case study (1977) they found improvisational drumming, cymbal-piano play, and vocal interaction activities resulted in increased vocabulary, development of spontaneous speech and conversational jargon, and the acceptance of change in novel situations. This case study suggests the use of instruments and singing can promote behaviors typical of everyday experiences and generalizable enough for real-world application.

As Nordoff and Robbins' work applied their theory primarily to case-studies, Edgerton attempted to apply this Creative Music Therapy framework to multiple subjects in an experimental design. Edgerton (1994) studied in 11 children with ASD (ages 6 - 9 years) of various levels of severity. This study aimed to "examine the effects of improvisational musical therapy upon the communicative behaviors of autistic children" (p.5). Over the course of 10 weeks musical therapy techniques were taught to these children with ASD, based on Nordoff and Robbins' (1977) Creative Music Therapy approach (described above). Results of Edgerton's

study suggest as musical vocal behaviors increased within therapy, nonmusical speech production behaviors also increased, both in and out of therapy sessions (Edgerton, 1994). Musical therapy has proven useful in a number of social communication goals and -- like Gardner's theory for education-- overcomes shortcomings of traditional practices.

Musical therapy is considered a low-structured intervention. A cornerstone characteristic of individuals diagnosed with ASD is restricted and preference for repetitive behaviors, typically associated with routine and structure. Improvisational music therapy, however, relies on spontaneity and novel creation. The practice of improvisation allows for individual interpretation and creation within the overarching theme or structure of the activity. This is why music therapy is so unique and useful to working with special populations and individuals with ASD specifically, because it encourages a break in routine and spontaneity while still providing a comfortable, safe, and encouraging environment. This unique structure has been found effective not only in improvisation practice but also with improvisational music therapy practice. Edgerton (1994) found that improvisational music therapy's aspect of spontaneous creation encouraged a sense of awareness and control in the environment, and thus provided a new and effective means for communication. This study demonstrates spontaneity encouraged through improvisational music therapy -- within the safe environment created by this practice -- facilitates a strong sense of self within the environment and successfully achieves generalization of skills learned in individuals with ASD.

Dance-Based Therapy

Dance is an artform used in storytelling, representing emotions, and conceptualizing abstract ideas or knowledge. Dance is also a form of communication through nonverbal expression (Nelson, 2017). Dance involves various aspects of the body and the brain, and is

typically a social form of nonverbal expression or communication. Physically, dance influences balance, flexibility, muscle strength and tone, endurance, and spatial awareness (Scharoun, 2014). While dance is largely based in physical skills and relies cognitive skills, it is used in therapy settings primarily to improve social skills.

Dance movement therapy (DMT) is another newly emerging form of therapy, and has more recently been used in studies of individuals with Autism Spectrum Disorder (ASD), concerning how DMT might impact these individuals' goal achievement. DMT is typically used for goals such as increasing body awareness, social skills, self-other distinction making, and empathy (Koch, 2015; Scharoun, 2014). The DMT approach is based in Gallagher's (2004) interaction theory of Autism and Mundy and colleagues' (2010) individual-interaction model. The goal of this therapy is not to improve how well a person can move or, for example, mirror another person's movements, but rather is to improve the intentions and attempts of an individual's efforts (Koch, 2015; Scharoun, 2014). With this idea as a cornerstone of DMT, the goal is engagement rather than perfection of performance. Similar to Gardner's theory and musical therapy, DMT as a practice overcomes biases of typical practices, such as the best-answer bias described above (see Gardner's theory). Another key component of DMT is accommodating to an individual's specific needs or abilities (Scharoun, 2014). Props are commonly used in DMT, whether to accommodate to a mobility limitation, or to heightened stress levels due to the novel form of intervention being used, as examples. By making DMT accessible to everyone, regardless of level of skill, ability, or comfortability, this therapy practice is adaptive to an individual and can really be tailored to a person's specific skills, challenges, needs and desires.

Koch's (2015) study of feasibility identified the specific areas within which DMT is effective in goal achievement for individuals with Autism Spectrum Disorder (ASD). This study focused on mirroring aspects of DMT with a group of 31 young adults with ASD, aiming to increase body awareness, social skills, self-other distinction abilities, empathy and well-being (p. 338). This study lasted seven weeks and was conducted through group therapy (two groups, one with 16 participants, the other with 15 participants). Each session involved a warm-up, partner mirroring activities, activities involving independent movement within the group, and a verbal processing or reflection time. At the end of the seven weeks participants reported improvements in all the aforementioned areas except empathy, which showed no significant change. The results of this mirroring-based DMT intervention suggest DMT can be considered an effective and feasible approach to treating individuals with ASD.

DMT uses strengths and challenges of body movement a person experiences as the starting point of therapy (Koch, 2015), and addresses both mind and body, at first through basic actions like imitation or mirroring and moving toward more abstract tasks requiring motor preparation and planning (Schmitz et al., 2003). Through the activation of the body in complex tasks, DMT works on cognitive processing abilities at the same time. The foundation of DMT is based in this mind-body relationship and focusing on skills in one area to strengthen skills in the other. A recognizable pattern emerges between Gardner, music therapy, and now DMT of using relative strengths when addressing areas of challenge. All three of these perspectives emphasize this practice, and perhaps this is the main component that can explain the successes each demonstrates on goal achievement in educational and therapy settings.

Another framework for dance-based intervention is the BEST (Body, Energy, Space and Time) model (Nelson, 2017). Like DMT, this creative dance style has been integrated into school

curriculum to help children's skill development in areas of curricular knowledge, vocabulary development, problem solving, memory, self-regulation, collaboration, and body awareness (Nelson, 2017). In these situations, learning through creative dance has improved individual's physical strength, stamina and agility (Green & Gilbert, 2015) as well as skills in auditory and visual organization, focus, self-regulation, perseverance and self-discipline, and following instructions (Horowitz, 2003; Tortora, 2006).

Nelson's study (2017) aimed to identify more specifically which areas of dance therapy, using the BEST model, impacted children's functioning. This study paired children with disabilities with typically developing children of approximately the same age and applied the BEST framework within a number of settings to teach academic, communicative, and adaptive skills. In an inclusive preschool classroom BEST was used to teach elements of space in relation to direction, size and levels and used movement to model these concepts (Nelson, 2017). In an early elementary classroom for children with visual impairments (ages 4 - 7 years) BEST was used to increase body part awareness and labeling, improve self-awareness and awareness of others, being able to experience and label various types of movement, and increase participation in group activities as well as increase communicative turn taking (Nelson, 2017). Finally, in a secondary classroom in a school for students with multiple disabilities, BEST was used to teach emotional expression through music (Nelson, 2017). The BEST framework proved useful in each of these settings to meet the goals set and improve on abilities of awareness of self, of others, and the environment.

DMT and BEST, like music therapy, incorporates Gardner's theory by creating an engaging setting for individuals to use their strengths or interests when working on goals to address more challenged areas. DMT is hypothesized to be effective, at least in part, due to the

rhythm, music, and enjoyable environment dance creates, which in turn influences a person's ability and willingness to learn (Boettinger, 1978; Costonis, 1978). Engaging in fun activities, taking the individual into account, and creating an environment best suited to that individual, makes the individual more likely to feel confident, engage, and learn on a deeper level. Although DMT, like music therapy, involve improvisational movement and working with peers in a new environment (typically very stressful for individuals with ASD and noted in those in the study), the stress decreases, individuals engaged actively, and a number of key behavioral challenges characteristic of this disorder saw significant improvement toward goal acquisition.

Bridging the Existing Research

Music, dance, and theater as avenues of therapy or educational practice all incorporate the unique aspect of improvisation and unpredictability. The premise each of these therapy practices relies on is that the skills learned in these practices better translate to the real world than regimented, restricted routines. All three practices also incorporate music, which has been hypothesized to be a factor in the facilitation of a fun and interactive environment (Corbett, 2011, 2014a, 2014b, 2016; Janata et al., 2007; Kim et al., 2009). Corbett's specific incorporation of peers as the agents of change (2011, 2014a, 2014b, 2016) is an aspect not discussed in depth in the other areas of therapy practice but an interesting aspect contributing to the effectiveness of the practice. This use of peers facilitated a learning of how to engage with peers in a naturalistic environment, allowing for a 'trial run' of behaviors with peers in a safe environment, learning what is appropriate and inappropriate, and translating this to everyday interactions. Peers provide a useful insight into therapy, not typically used but proven very successful (Corbett, 2011, 2014a, 2014b, 2016).

The current study incorporated aspects of all forms of therapy discussed above, with units in voice, music, dance, improvisation, and other theater techniques. The goal of this study was to better understand what specific social communication skills these practices support. Over the course of fifteen weeks, participants learned and rehearsed skills in each of these areas of practice, culminating in a final performance. This study also examined (a) how individuals who participated felt they had developed; (b) what they felt they learned through their participation in the theater program; and (c) how their perceptions on how these skills can be translated to everyday tasks and experiences. This study aimed to answer the question: how does the predictable but various structure of music and improvisation promote comfort with novelty -- specifically through willingness to participate, initiation of novel contributions, and decreased sensitivity to change -- through performance practice and activities? Students' reflections on their own progress as well as their impressions of other students' progress were used to determine which of these areas were impacted through the use of theater and music-based activities. Additionally, personal impressions of this impact -- both within and outside of the setting these activities were taught -- was considered in order to understand level of generalization of skills to everyday living situations.

Chapter 2: Methods

Bracketing the Study: My Personal Experience

I, the researcher was initially drawn to this subject matter through my personal experiences with theater, as well as my work with performance groups for individuals in special populations. This work includes that I have done with “The For Good Performance Troupe” as well as prior experience as a student in the “Supporting Communication Through Performance” pilot-course.

The For Good Performance Troupe is a performance group in State College, PA, run by Dr. Krista Wilkinson for individuals with Down Syndrome (DS) and their peers without disabilities. This performance troupe incorporates improvisation, vocal exercise, and dance choreography into a revue performance at the culmination of a seven-to-ten week season. Individuals in this troupe come from various skill levels and performance experience backgrounds (from veteran-members of the group or individuals with extensive history in musical performance to new-members, with no experience whatsoever). Peers also come from varied backgrounds and experience levels.

The emphasis of this group is to put individuals with and without DS on a level-playing-field, and encourage cooperation and creation between individuals of both populations. I worked backstage for my first year as a volunteer and as a choreographer for the group the last two years. I have seen development of performers -- both with and without DS -- week to week in confidence, memory of the choreography, emotional expression associated with the song lyrics, and projection of voice when singing. These observations led me to ask what specific skills engaging in musical performance has on both typically developing individuals and individuals with special needs, who may or may not come from a performance background.

Through my participation in The For Good Performance Troupe, I was offered the opportunity to be a part of a pilot course created by Dr. Krista Wilkinson at The Pennsylvania State University called “Supporting Communication Through Performance.” This course was inspired by The For Good Performance Troupe, adopting the practice of engaging typically developing Penn State students alongside college-aged students with intellectual and developmental disabilities from the local regions. The individuals involved in this course are fairly similar in age, and come from various musical performance experience backgrounds (ranging from none, to high levels of experience). This course lasted fifteen weeks and incorporated improvisation, vocal performance, and various dance units throughout this time, culminating in a final performance. As a member of the class, I was a performer instead of a leader, and learned alongside the other student-performers. From this different perspective, I was able to gain insight in myself as well as observe others and how we developed skills over the course of the semester. I was also able to reflect on how these skills apply outside of musical performance or the classroom. I saw my confidence, emotional expression, and adaptability skills improve within and outside of the classroom.

A key feature of this course was that every unit, the students were broken into small groups consisting of students with and without disabilities. Each group discussed prompts about the unit. The Penn State students were then assigned to create a reflection about the discussions. Through this period of reflection every few weeks, a clearer understanding developed about how musical performance can impact social communication abilities and skills applicable to daily living. Because of this course, these reflections, and my personal experience in the course, I developed a further understanding of how the activities performed and skills learned are applicable to everyday-functioning and social communication skills. Thus, I developed the

question driving this paper: How does the predictable but various structure of music and improvisation promote comfort with novelty, specifically willingness to participate, initiation of novel activities, and decreased sensitivity to change through performance practice and activities?

Class Profile

The participants observed in this study were students of the course “Supporting Communication Through Performance.” They consisted of both typically developing Pennsylvania State University students and age-matched students with special needs from the local region. Penn State students came from majors of Communication Sciences and Disorders (CSD) in the college of Health and Human Development (HHD), students from the college of Education, and students in majors within the college of Theater, primarily. There were eight students from CSD, three students majoring or minoring in musical theater, and six students from education majors for a total of 17 enrolled Penn State students. Some students (both typically developing and students with special needs) brought previous theater or musical experience, while others brought little to no experience.

Reflection Assignments

The course “Supporting Communication Through Performance” consisted of multiple ‘units’ concerning different areas of performance including voice, improvisation, modern dance, and different cultures dance styles. Reflection assignments were designated to Penn State students. These assignments asked students to work together in small groups, including with the students with special needs, to discuss what they had learned, how they felt they changed over

time, and how they saw themselves using what they had learned in the course outside of the classroom. These reflections were assigned four times over the 15-week semester. This study received IBR approval (IRB #00008974) before it was conducted. Before analysis, each reflection transcript was de-identified concerning age, gender, and disability status. I, the researcher, was on a study abroad experience during the time the class was conducted, and therefore did not know which participant wrote which reflection. Additionally, although familiar with some of the participants with special needs, I was blind to which students the reflection assignments were referencing. Once each reflection was de-identified, qualitative analysis was used to identify themes in the reflections.

Each reflection is based on the units covered over the selected time (for example, one concerned the improvisation and vocal performance units, another concerned the dance units, etc.) and written from the perspective of the Penn State students. Each discussion and, in turn, reflection was guided by certain questions adapted to each unit and meant to guide meaningful conversation and reflection. Prior to the class beginning, a number of the questions that were incorporated in each reflection were written by the researcher, and other questions were written by the course instructors. These reflections were incorporations of both research-guided questions and instruction-guided questions.

The course instructor shared a subset of 5 of the 17 de-identified reflections for analysis in the current study, which served as the source from which data for this study was drawn. Using only a subset allowed for further confidentiality in addition to the de-identification process. Each reflection was read over multiple times by multiple people, in order to gain familiarity with main themes and note initial observations. A team of three individuals, including myself, read the reflection assignments and discussed the themes or commonalities we each identified within the

reflections. When we agreed on these themes or ideas, they were recorded on note cards to later be organized into this study's codebook as codes and subcodes. This process facilitated the creation of a codebook draft used in the initial unitizing process.

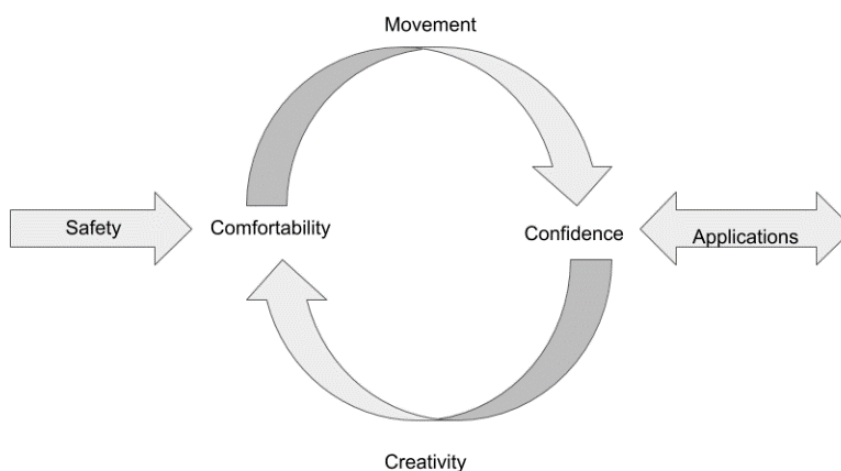
I broke down the reflections into individual thought units, and each reflection was unitized and coded according to the themes found consistently throughout the reflections and across students. Codes developed over time, being modified as new understanding developed or when consensus between coders could not be reached utilizing the existing codes. Initial coding was done individually, with two independent coders (myself and a student interested in research but unrelated to this project). When independent coding revealed inconsistencies in coding, the codebook was revised. This process occurred twice before the final codebook was created.

The codebook was inclusive of all but two thought units and their associated meaning or purpose, indicating that the point of saturation was reached (i.e., adding further codes or additional reflection would not yield any new themes). The final coding process occurred through both independent and consensus coding process, triangulated between myself as the researcher, the other student described above, and Dr. Krista Wilkinson, an experienced researcher in the field.

Chapter 3: Results

“Both WZ and FW mentioned in our discussion how they can use what they’ve learned about confidence from this class outside of class. Having confidence is helpful in endless situations in life. It is helpful when meeting and talking to new people, talking in front of a group of people, and in a job setting. When someone has confidence, people are more likely to listen to and trust them. Confidence is such an important skill for us, as young adults, to have.”

Confidence is the overall outcome described from reflections in this study. This confidence is applicable to a number of different situations and contexts. Participants noted learning how to demonstrate confidence physically, as well as speak confidently, and feel confident. Various situations that require confidence were also discussed, such as a job interview or public speaking. Students mentioned learning how to present themselves in these situations is different than simply speaking with friends. These situations require confident posture by standing tall and maintaining eye contact. Additionally, for these situations that require confidence, speaking confidently is associated with a person’s ‘chest voice’ providing a stronger, more powerful sound; this was practiced during the vocal/singing unit. The student who wrote this reflection, and the two students he or she is referencing acknowledged the importance of confidence in everyday life and various situations.



Theme Diagram: How Safety, Movement, and Creativity influence/are influenced by Confidence and Comfortability, and how Confidence and Generalization (application) of skills influence one another.

Analysis of results demonstrated the experience of comfortability in practice as the overarching mechanism promoting confidence. This concept applies not only to practice but, more critically, to skills and abilities in real-life situations. To achieve confidence through comfortability, four main mechanisms were identified: creation of a safe and fun environment; encouraging creativity through the context of the activities and by promoting the individual's own self-expression; the role of movement and nonverbal communication supporting this expression; and finally, the specific impacts on skills and activities that occur outside of class (i.e., generalization). Through the use of these mechanisms, comfortability is established and through comfortability, confidence develops. In addition, while application of skills to real-life scenarios is considered a mechanism to promote confidence, the facilitation of confidence also promotes the continued application of these skills in everyday living.

Creation of a Safe and Fun Environment

Overall, the category of “Safety” was determined as a mechanism for change. Safety referred to three conditions within which the feeling of safety or security was experienced by participants. These include safety provided from the environment itself and expectations within the environment, safety that developed over time, and safety within the peer group of all participants.

Safety: Subthemes, codes, and examples

Environment and Expectations	<ul style="list-style-type: none"> • Level playing field • Low Stakes • Variable Accommodations • Failure Bow • OK with Vulnerability • Modeling vs Initiating • Comparison to Familiar
Time	<ul style="list-style-type: none"> • Amount of Time • Change over Time
Group/ Peer Reinforcement	<ul style="list-style-type: none"> • Positive Reinforcement • Acceptance • Guaranteed Response • Fun • Laugh Together • Teamwork • Give + Take in Conversation

Safety within the Environment and through Expectations:

Creating an environment that promotes a feeling of safety for all participants was prominently noted within many participants’ reflections. A safe environment encourages a feeling of comfortability for an individual, promoting self-expression. The feeling of safety promoted by this environment empowers an individual to not only participate, but initiate, both willingly and confidently.

The environment of this course differs from a typical classroom setting. It provides a more interactive and social environment for participants to engage within. The nature of this

environment was noted many times in reflections as something that made the course interesting and prompted engagement. One student noted:

“From my perspective, I thought that modeling the activity resulted beneficial to me and others. I do not come from a theater background and once I saw someone do the activity, it made me feel more comfortable to volunteer. Consequently, I was also able to prompt some of the Life Link students when they were having difficulty. I also appreciated the option of taking a bow because it provided a more comforting, judgement free environment.”

This student notes the use of a model helping to promote comfortability within the environment. As many students did not come from a theater or musical background, the activities were new to them and many noted being nervous. Being able to see someone else do the activity helped to “break the ice” and demonstrate that the activities were not as scary as they might have seemed. The failure bow this student notes is a feature of improvisation practice adapted to this course. In the failure bow, if an individual makes a mistake he or she can take a bow while the rest of the group claps for them. The purpose of the failure bow is to promote participation within a low-pressure, judgement-free environment. This environment allowed for not only participation, but initiation in activities by multiple individuals. Students who had no prior theater or musical experiences noted feeling more comfortable and willing to participate in the activities when they knew there was no wrong or right way to do something. This freedom of expression and affirmation that an individual’s expression was accepted no matter what encouraged students to feel more comfortable within the group and participating in activities.

Safety in Time:

Time was a theme throughout reflections, in terms of amount of time spent engaging in activities as well as change over time. The more time individuals spent practicing specific activities, the more comfortable they became doing these activities. This was evident in

reflections stating the repeated practice of call and response activities, for example, increased familiarity with activities and encouraged comfortability in practice. As amount of time increased, so did comfortability with participation and initiation in class activities. Additionally, as amount of time spent engaging in activities increased comfortability with and confidence in these activities, this coincided with change over time. As individuals engaged in the class activities throughout the weeks, this engagement encouraged a change in comfortability over time. Initially, many of the participants had little to no experience with any one or all units: singing, dancing, improvisation, or theater. However, as time went on and participants became more familiar with activities and expectations of the course, many individuals noted feeling more comfortable and confident in the class and class activities. Thus, individuals recognized they participated more often in these activities and felt more open to initiating activities or being more creative in what they contributed to the activity. A student describes:

“During the improvisation activities, I noticed that FW was more reluctant at first to be the one to initiate. But as he/she got more comfortable he contributed more and more. During the activity where we created improvisation scenes in small groups, he/she was volunteering to start the scene with his/her own idea. This shows that he/she became more comfortable with being the person initiating after some practice following others’ leads.”

This individual (FW) described above demonstrated a hesitancy typical of many students at the beginning of the course. As time progressed, and as activities became more familiar, this hesitancy faded and not only was FW observed as more comfortable in practicing these activities, but also in adding novel, creative ideas and taking more of a leadership role. Another individual modeling the activity in the beginning was, again, noted as a useful tool, encouraging the courage and comfortability of others in initiation in later practices. Through repeated practice and over time FW, like many other individuals, felt more comfortable participating and more confident taking more of a leadership role in activities.

Safety in the Group / Peer Reinforcement:

Safety was also described by participants in terms of the group and through interactions with peers. The individuals came from different experience backgrounds in music, dance, or theater activities. Comments in the reflections noted this as reaffirming to them because it helped to make them feel more comfortable participating knowing others were from similar experience levels. Additionally, the group setting and working together as a team was reinforcing due to the fact that initiations within activities were guaranteed a response (for example, if someone initiated a call, another person is guaranteed to respond, according to the structure of the activities). This knowledge that a person's initiation of an interaction will definitely be received by another person and responded to makes the initiation less intimidating. Additionally, the interaction style was often described as 'fun,' which was encouraging to individuals. This reflection noted that engaging in something enjoyable, surrounded by people also enjoying it, was encouraging and promoting comfortability and confidence in participation in activities.

“As a group, we all came to the consensus that the activities that were done with everyone were more comfortable than the ones where we had to step up and perform a task on our own. For example, we all enjoyed the character walk but found it hard (with the exception of WZ) to come forward and volunteer to tell a story using our singing voice.”

A feeling of safety is described by this student, facilitated by teamwork or activities that required a group rather than an individual to perform the tasks. This was especially evident in the reflections from early in the semester. However, practicing these unfamiliar activities with the support of peers encouraged participation while facilitating relationship building and getting to know the other participants. This aspect of doing things together took some of the pressure of performing off the individual and allowed every participant to warm slowly to the environment

and expectations. The character walk activity involves walking and acting out a character, but is done by all participants at the same time. The singing activity described, however, involves an individual or small group. By using group activities and facilitating participants getting to know their peers, the pressures of performing in front of people was alleviated and participants felt more comfortable contributing to the activities.

“I felt like these activities were great at engaging the entire group as well. The improv activities really inspired everyone to volunteer more than they normally would, while also allowing us to have a lot of fun.”

Fun was a very important factor to the group activities and noted through various reflections as something that encouraged individuals to participate and feel more comfortable. Peer reinforcement is commonly used as a method of learning socially appropriate behaviors. It is therefore very important to individuals in this age group. Fostering teamwork with participants helped to put all students on a more level playing field, having to work together toward a common goal. Therefore, cooperation replaced any potential for judgement and students felt more comfortable with their peers. Laughing together and having fun together with the group also helped to break down boundaries or insecurities and encourage participation in a comfortable and safe environment.

Creativity Through Context & Promoting Individual Expression

The category of “Creativity” was described as an outcome of a feeling of safety, but also as a mechanism for instilling comfortability and confidence. Creativity as a major code or theme was defined by both the structure of the activities -- allowing for individual interpretation or requiring everyone to move, act, speak the same way -- as well as through an individual’s

creativity of thought and actions interpreting the meanings and expectations of activities that allowed for this within the activities.

Creativity: Subthemes, codes, and examples

Within Structure	<ul style="list-style-type: none"> • Amount of Structure (of activity) • Choreographed Movement vs Freestyle • Individualism within Group (because of structure)
Individuality	<ul style="list-style-type: none"> • Individualism within Group (because of individual) • Self Expression • Adaptability (varied movements) • Imagination • Spontaneity • Pretending (Role-Taking)

Creativity within the Structure:

Overall, this course and its selected activities implemented a structure that was very fluid and non-restrictive. This is the essence of improvisation and theater, to create a loose structure with rules, but allowing for individual interpretation and expression of this in creative ways. For example, certain styles of dance (best seen in this course through dances where the moves match the lyrics) might be choreographed and the expectation is for the whole group to follow the choreography and move the same way at the same time. In other styles of dance, however, movements might be the same in essence, but individual style or interpretation is encouraged (an example of this could be seen in the hip hop unit). Some dances might even be considered entirely improvised from a set of learned movements but with no set structure or one way to perform the actions, it allows for both individual interpretation and unique structuring (this could be seen in the capoeira dance unit). In turn, this allows for an individual's unique self-expression and imagination to be accepted by the group and incorporated into the activities.

“Our group discussed what we liked about this style [hip hop] of dance. We all liked how we each had the opportunity to make it our own. NB commented that he/she liked this style because it is more individualized and gives everyone the opportunity to express themselves.”

This student discusses the hip hop unit and the freedom within this style of dance to improvise one's own dance moves. Hip hop is a dance style that allows for individualized movement, even within choreographed dances, concerning personal style and flair. This individual referenced another student's comment about this style of dance, noting a preference for individuality within the structured dance and opportunity to add unique aspects to the dance. Capoeira, similar to hip hop, allows for personal interpretation and improvisation:

“The part of capoeira that I found to be the most unique is the repetitive pattern to it and how the movement is spontaneous. The main movement of the dance is a repetitive pattern, but each partner can also add their own movements as they wish. They can do whatever movements they want, because that part is not choreographed. From observing this dance, I think a lot of the students enjoy the fact that it has a pattern to it but can also be individualized. Some students like to just stick to the pattern like movement (the jinga), and others like to do more of their own thing.”

Capoeira is a martial art turned dance style which originated from enslaved Africans in Brazil, and is typically performed as a partner dance with a community circle surrounding the performers. This style of dance involves many different variations of 'attacks' and 'escapes' that can be used to move with your partner around a space and produce variations of body movements or partner interactions. These moves are staples of this style of dance, however the structure of when to move, which moves to perform, or rules for governing how to react to your partner's movements are loose, and up for interpretation. As this student noted, as a participant an individual could choose to perform the basic pattern, or to add the other movements or variations provided, allowing for creativity of the individual within the structure of the dance. This openness to the individual's interpretation and comfort level allowed all individuals to participate and contribute in the way they felt most comfortable.

Creativity through Individuality:

A loose structure of activities allows for an individual's unique self-expression and imagination within the activities. This encourages comfortability with an individual's self and that individual's unique perspective in turn, building confidence. This individuality was allowed in more loosely structured activities throughout the course, and encouraged participation in novel and unique ways. The activities allowed for adaptations to be made to choreography, lyrics, improvisation games, etc. Spontaneous creation was encouraged and made every practice different and unique, even when practicing the same activity.

“HA's favorite part of the improv unit was the character walk. He/She enjoyed having the creativity to interpret their version of the character however he/she wanted to. He/She also liked being able to use their creativity for the prop game and the freeze scene. He/She became an FBI agent in the freeze scene because that something he/she enjoyed and was excited to bring that character to life.”

This student referenced HA's favorite activity, the character walk (described above in the “Safety” section) because he/she was able to use his/her creativity to create novel characters. The student continued by noting HA enjoyed the prop game and freeze scene for this same reason. The individual in these cases guides the practice while creativity and pretend play are emphasized. Additionally, this allows for spontaneity to guide the practice, and demonstrates that even though the same activity is being performed, it looks very different every time depending on what characters, behaviors, situations, topics, etc. are chosen. By allowing the individual to guide the practice and incorporate novel creation to his or her practice, HA and this student noted enjoying the incorporation of their individual creativeness.

“When relating how we sing to our body movements we like to change them up depending on the situation and what we are practicing. We also liked changing it up when it came to our call and response groups, it was fun to change our calls and responses and practice different pitch ranges and who initiated the activity. Personally, I enjoyed being able to see the differences in each activity and play around with our responses by changing up what we did.”

The flexibility of activity's structures allowed for individuals to interpret the activities in unique ways through each practice. Therefore, no two practices looked the same despite performing the same activities. Through the structure and rules governing activities allowance for novel creation and adaptability in interpretation, the individual was able to take control and guide the activity wherever he or she wanted. This is evident in the variations of words, actions or gestures, topics, or characters used by individuals and the group within each activity and day to day. This constantly changing subject matter encouraged continued participation throughout the course of the semester, with buy-in to activities remaining high and not dropping due to boredom or repetition.

Role of Movement & Nonverbal Communication Supporting Expression

The "Role of Movement" category describes movement as a mechanism of expressing an individual's self and for learning skills. The role of movement was discussed primarily within the dance unit reflections, but also contributed to the category of "Applications" overall -- as the role of movement was defined in reflections to contribute to skills both inside of and outside of the classroom -- relating not only to dance but to daily living tasks as well.

Role of Movement: Subthemes, codes, and examples

Interpersonal, Physical Aspects & Message Relay	<ul style="list-style-type: none"> • Body Language/Nonverbal Message • Personal Space • Personifying/ Embodying Movement • Shadowing/Partner Work • Signaling to Partner • Call/ Response in Dance • Clarify/Support Message (associated with verbal message/ communication effort)
Intrapersonal Skills	<ul style="list-style-type: none"> • Physical Awareness • Concentration (Keeping the Beat) • Memory Aid • Rhythm Keeping

Role of Movement in Interpersonal, Physical Aspects of Interaction and Message Relay:

Movement was commonly mentioned within reflection assignments as applied to message relay and information exchange between individuals or groups. This was described through physical give-and-take, with one person or group initiating an action that another person or group responds to in some way. Through contexts of body language, spacing, and physical action or movement, individuals learned interpretation skills of how to perceive other's intentions from nonverbal means of communicating, as well how that individual's own actions, body language, etc. might be understood or translated to a receiver of his or her message. Therefore, clarity of message was established through movement. Activities such as mirroring games, call and response dances such as the Che Malambo, and nonverbal improvisation activities helped promote these interactions and were commonly associated with these skills within reflections.

“There are so many communicative benefits within improvisation that don't even require speaking. How you present yourself through facial expressions and body language is a language on its own.”

This student discusses the importance of understanding how an individual's physical presence serves as a representation of a message or communication in and of itself. By becoming aware of an individual's own physical presentation, he or she can better understand what an observer or communication partner might interpret that. Improvisation tasks involved both verbal and nonverbal tasks and the practice of musical theater teaches physical expression to be exaggerated. This mindfulness toward exaggeration, for example, aids in teaching awareness of body as well as awareness of how to better support or clarify an individual's intended message.

“Like when we use our sledgehammer for “up on the shore they slave away”. If we just swung our sledgehammer slightly the audience might not get the full effect of what we are trying to portray. But when we exaggerate the sledgehammer part, the audience can really tell that we are slaving away, like the lyrics say. Exaggerating our movements

helps the audience fully experience what we are portraying on stage.”

The exaggeration this student discusses is a skill taught through theater practices, encouraging actors to take into account the fact that the audience is far away and cannot necessarily see the actor’s face. This makes the physical representation of meaning through the body even more important. Through this teaching, students felt they learned the value of understanding the intent behind a message and how best to represent this, not only verbally but also nonverbally through posture, expression, energy, etc. This helps to show a communication partner what that individual means to demonstrate and clarify or support that message. By using one’s body to represent the message, the message is adopted and personified through movement (for example, through exaggerated movements, clear facial expressions, posture, etc.), helping to further support the communication partner in understanding the intended message.

Role of Movement in Intrapersonal Skills:

Movement was also discussed as a tool to enhance an individual’s skills associated with awareness of various outcomes, such as physical awareness in how an individual carries him or herself as well as movement’s role in rhythm keeping, concentration or even as a memory aid. Movement was associated with helping individuals remember lyrics to songs they were dancing to, helping them stay in the present moment, focus on the activities, and help to identify the beat or speed of songs.

“Personally, I like matching the moves to the words better than the rhythm-based dance. I am not very musically inclined, so I don’t have a natural sense of rhythm. Matching the moves to the words also helped me remember the moves better, because when I forget the move all I have to do is listen to the lyrics and I get back on track.”

The modern dance unit involved styles of dance more lyrically-based, where movements were associated the lyrics being sung. Matching lyrics to movements was easier for this student, who notes having limited experience with dance or theater. Dancing served as a memory aid, to

support memory of the lyrics as well as using the lyrics to support memory of the dance movements. The student also noted that this association also helped him or her if he or she got off beat during the song, to find the rhythm and place and get back on track.

“We used our cognition because it takes a lot of focus and concentration to be in sync with everyone else and also to remember how many counts until we changed to the next move.”

This dance unit was performed with individuals all performing together, which is a difficult task to coordinate. This student notes the skill of concentration being crucial to staying with the group. Dance and movement support this active cognition by requiring individuals to constantly be paying attention and listening for changes in the music or lyrics to indicate a change in the movements or choreography.

Generalization to Additional Contexts

The final reflection prompt explicitly asked students to talk about applications of the class content and skills to settings or activities outside of class. However, the theme of applications of class content to outside contexts also emerged spontaneously in the earlier reflections throughout the course. Earlier reflections referenced activities in practice and associations to outside of class activities, behaviors, and expectations. Students noted activities within the course had identifiable impacts on areas such as their skills in conversation, emotional regulation and promoting overall confidence in an individual’s self. Additionally, students also identified improved partnerships skills, influencing and increasing effective and meaningful relationship formation and maintenance. Finally, skills and awareness learned through course activities were reported to be generalized by many individuals to learning contextual factors of

social pragmatics concerning how to behave, speak, and present an individual's self in various contexts.

Applications: Subthemes, codes, and examples

Individual Factors	<ul style="list-style-type: none"> • Confidence (leads to) • Attitude and Sass • Eye Contact • Facial Expression • Problem Solving • Flexibility/ Adaptability • Emotional Regulation
Partnership Factors	<ul style="list-style-type: none"> • "Yes And" • Turn Taking • Perspective Taking • Building Meaningful Relationships • Conversational Skills
Within Contexts	<ul style="list-style-type: none"> • Situationally (of voice) • Emphasis via Voice • Cultural Awareness

Applications for Individual Factors:

Individual factors learned through this course and applied outside of the course include physical, emotional, and mental skills, abilities, and awareness. This course helped develop an awareness of oneself. The confidence and comfortability developed within course activities through the mechanisms described by other coding themes was noted in reflections as also translating outside of the classroom, and allowed for more open and authentic expressions of self within typical contexts individuals encounter.

“Learning improvisation has helped me with my job, sometimes I come up with an activity that sounds amazing on paper but when I implement it with the adults with autism I work with some of them do not respond. Improvising at the moment has helped my job go smoother, by steering clear of potential melt downs. Surprisingly enough, the students respond to my improvised activities better than the planned ones.”

Adaptability is a skill very useful in everyday living as life is unpredictable. This student noted that using skills learned from improvisation helped him/ her work more effectively at

his/her job interacting with clients. This flexibility allows for problem solving of potentially stressful situations more easily and without conflict. Improvisation involves “in-the-moment” thinking. This translates to the unpredictable nature of life and social interaction, as this student noted the effects of this practice in his or her problem solving skills and adaptability in difficult situations.

“FW noticed that he/she was able to use improvisation skills to help cope with his/her anxiety. When he/she notices an increase in anxiety he/she uses improvisation to adapt to the situation, calm himself down and become more confident.”

Emotional awareness was a skill taught through the improvisation unit. This reflection noted emotional awareness helped another student to cope with and regulate emotions he or she might be experiencing. By learning this awareness within the classroom setting, which promoted a low- pressure environment, individuals felt better equipped to cope with stressful situations that might arise outside of the classroom.

Applications for Partnership Factors:

Students also discussed the influence of partnership factors and relationships in their everyday lives. Learning to take turns in conversation, accept what the other person says, and responding accordingly were skills also noted in reflections. Learning conversational skills and being able to understand a communication partner’s meaning intended in a message were additional factors noted by individuals as skills and abilities facilitated in class which translated to outside-of-class scenarios and relationships as well.

“I believe this directly relates back to “yes, and” because you cannot always control what life throws your way and it is very easy to get overwhelmed by it. However, by saying “yes, and” to it, you are able to accept the situation and control your response to it.”

This student acknowledges the improvisation practice of “yes, and...”. This is the foundational element in improvisation. In “yes, and...”, an individual must accept whatever

statement their partner has offered (“yes”), and add something relevant and meaningful to that (“and...”). This student notes the relevance and importance of this concept in his or her life as a method of adapting to a situation. This is also a useful tool when communicating with another person, to ensure the exchange is relevant and meaningful. It also teaches turn-taking in conversation by encouraging multiple contributions in guiding conversation.

“Both the vocal performance and the improvisation provided everyone skills that could be implemented not just within the therapy or classroom setting. For example, the song from Ghana, although not in English helped establish rhythm of turn taking which is also important when holding a conversation with someone.”

Similar to the concept of “yes, and...” another student described the song from Ghana (Che Che Koolay) as useful for turn taking to facilitate meaningful conversation practices with communication partners. This song was noted to help establish the back-and-forth typical of conversational speech and teach skills of waiting and listening before responding.

Applications for Within Contexts:

Participant’s reflections additionally noted an awareness of different context and expectations within various contexts whether they be related to voice, physical presentation, social appropriateness etc. Different contexts require different behaviors, language use, and physical presentations. Through the vocal unit, participants learned different ways of using their voices, creating emphasis, using a stronger or a softer voicing. These were skills noted in reflections as useful to real-life scenarios, such as the differences in voicing when talking to friends versus going for a job interview. Additionally, through the song from Ghana or Che Malambo and Capoeira dance, participants learned about different cultures and developed an awareness of difference between themselves and people within these cultures. Cultural awareness falls in line with partnership factors, as an understanding of a communication partner’s culture allows for better perspective taking abilities. Awareness of when to speak a

certain way or stand a certain way and knowledge of cultural differences were all applications noted throughout the reflections concerning contextual awareness and application of understanding certain expectations associated with different contexts.

“From my own personal perspective, I think Che Malambo was my favorite unit that we have done this semester. I really enjoyed being able to meet some of the men from Argentina who perform Che Malambo, being taught a routine from them, and getting to see them perform live. My favorite part about this unit, however, is that there was a lot of history behind this group. I love knowing that each movement and each sound they make is purposeful and is done in order to represent part of [Argentine] history. I think it was really effective being able to learn a little bit about their background before even meeting them because I appreciated the different dance moves they performed for us even more. I was also able to think about horses walking or running while they were performing and it sounded pretty realistic because of how on beat and precise their performance was.”

Cultural awareness is important to everyday life. Therefore, developing a respect for other cultures is important for developing cultural competence and respectful and appropriate interactions. This student noted feeling more aware and appreciative of the dance after learning about the cultural relevance of that dance. By knowing the importance of the movements or messages each movement represents, the dance became a form of communication rather than simply choreography. This made the dance more powerful as a representation of history. The dance, in turn, made the story of the history more memorable. This dance helped teach cultural awareness in a fun and unique way.

Chapter 4: Discussion

Gardner's original theory of multiple intelligences introduces the idea of creating a learning environment conducive to the individual; instead of focusing on a class or group as a whole, he said it is important to delve deeper into the individuals that make up that group and find what they each need in order to be successful. Stigmas of 'smart' or 'not smart' therefore dissolve and a *spectrum* of 'smart' becomes the new form of thought (Mettetal & Jordan, 1997; Stanford, 2003). Teachers and students report that this mindset will promote inclusion and understanding an individual may have strengths in certain areas not typically acknowledged in a traditional classroom setting. An environment can be created where an individual not only feels comfortable as his or her unique strengths are acknowledged and incorporated into learning, but also confident in him or herself. This, in turn, leads to comfortability working on skills that might not be as developed or strong (Snyder, 1999). A nontraditional learning setting acknowledging and incorporating an individual's unique strengths should be considered in educational and therapy settings.

The unique setting described through this study is that of musical performance. Music has been demonstrated as highly engaging to individuals with Autism Spectrum Disorder (ASD) (Kim et al., 2009; Corbett, 2011, 2014a, 2014b, 2016; Srinivasan & Bhat, 2013; Applebaum, Egel, Koegel, & Imhoff, 1979; DeMyer 1979; Kolko, Anderson, & Campbell, 1980; Rimland, 1964; Sherwin, 1953). Additionally, most individuals (regardless of disability status) demonstrate strengths in bodily-kinesthetic learning (Snyder, 1999). Thus, these practices and skills hold great potential in therapy and educational settings which involve movement and performance. Students described in their reflections what they felt they were achieving or gaining through this course. The results transcended the classroom setting or the field of music

or performance, to skills and abilities necessary to and evident in everyday life. Thus, this approach to therapy or learning (specifically when working on goals concerning social interaction and communication) has demonstrated it is generalizable to everyday settings and its potential usefulness in goal achievement and maintaining engagement.

In this study, similar to Corbett's SENSE theater (2011, 2014a, 2014b, 2016), expert mentors were incorporated into practice, teaching the skills and practices to the students or participants. Corbett's results are significant to this study when considering peer relationships of typically developing individuals performing alongside individuals with special needs. In the case of this study, as all students were learning together, students without disabilities were able to help students with special needs, but students with special needs were also able to help those without disabilities. This aided in the creation of a safe and accepting environment, in turn encouraging participation and leadership roles for all individuals, regardless of disability status. Corbett's SENSE model (2011, 2014a, 2014b, 2016) utilized peers without disabilities as the expert mentors to work one-on-one with students with special needs; in contrast, the course described in this study emphasized an equal playing field between all students, with typically developing students and students with special needs learning side-by-side. Expert mentors, in the case of this study, came from the community, of various ages (although not typically the same age as the students) and were only involved in the course during the unit they were considered 'expert' in. In both studies, the status of the mentors as 'expert' was important to learning achievement. Additionally, the incorporation of typically developing peers alongside participants with special needs proved impactful and important to practice and overall achievement and generalization of skills.

This study supports Corbett's (2011, 2014a, 2014b, 2016) argument that incorporation of typically developing peers is important to learning and generalization outside of a theater-based setting. Corbett identified peer-relationships as significant in providing a 'practice run,' so-to-speak, of practicing conversation and interaction skills within a safe environment before initiating this sort of interaction in a naturalistic setting (2011, 2014a, 2014, 2016). The importance of this safe environment was also acknowledged through self-reports within the current study, allowing for more comfortable interaction with peers and relationship-building. The course looked at in this study placed all students in an environment in which they were learning *together* instead of learning *from* one another directly. In this case, students were comforted by the fact everyone was considered to be on the same level, all learning alongside one another, all demonstrating some difficulty with one activity or another. The dynamic that all students involved were not considered 'experts' created an environment without judgement and encouraged students to participate and support each other's participation. This level playing-field facilitated in the 'learner' status of all participants encouraged students to work together and support each other. This, in turn, led to individual confidence within the supportive environment, and allowed individuals to move away from preferring the group.

Evidence from this course supports Finke's (2016) assertion of creating an 'equal status' between peers and fosters learning generalizable to everyday settings concerning friendships initiation and maintenance for individuals with ASD. Demonstrating social skills (learned over the course of the fifteen weeks individuals engaged in this class) in outside-of-class scenarios, the 'equal status' Finke (2016) described or the 'level playing field' described in this study could be the factor that bridges the gap of learning social skills concerning peer relationships and

friendships. Using these skills in real-life scenarios instead of just research-mediated situations demonstrates a generalization other practices were unable to achieve.

The use of an expert mentor -- regardless of if it was a peer (as in Corbett's study) or a third party (as in our study) -- was also demonstrated to promote learning and engagement in both settings. While it is less clear what impact of the use of peer expert mentors in Corbett's study could be attributed to the fact that the mentor was a peer or that the mentor was an expert. Through the course described in this study, the 'expert' status of mentors who taught each unit demonstrated an impact on the engagement level of students when they were learning the activities. Learning from an expert seems to be the factor most influential in attention to the subject matter. This expert factor was noted as engaging and intriguing to students. Additionally, in the units like Capoeira martial arts dance style or the Che Malambo dance, learning from an expert not only about the dance style but also its origin and culture made learning more impactful. These stories and dance styles became favorites of many of the participants because they were learning from someone very knowledgeable about the subject matter, and provided interesting information about these new activities. While it is unclear if this cultural impact had greater influence than the 'expert' profile of teachers, it seems clear that (to some extent) the 'expert' status of teachers for each unit encouraged participants to engage more in the activities.

This study also supports the concept of improvisation within a structure promoting comfortability with the unpredictability of everyday experiences. A keystone feature of ASD is restricted or repetitive behaviors, thus this outcome of musical performance as a therapy technique could prove very useful to treatment. Improvisational music therapy (Accordino, Comer & Heller, 2007; Dileo, 2000; Peters, 2000) and dance therapy (Nelson, 2017; Koch, 2015; Scharoun, 2014) both incorporate a structure allowing for variability in interpretation. This all

intertwines through the practice of improvisation, where there are limited rules dictating structure of activities or expectations of participants involved in the activities, but within the structure personal interpretation is the main emphasis (Corbett, 2011, 2014b, 2016; Lerner, Mikami, 2011). This overall structure satisfies the preference for regulation individuals with ASD and other special populations have, while still promoting the unpredictability of experiences. This musical performance structure encourages adaptability and makes unpredictability fun due to the nature and structure of the activities. The fun aspect is what appears minimize any anxieties associated with unpredictability, supporting findings of improvisational music therapy (Accordino, Comer & Heller, 2007; Dileo, 2000; Peters, 2000; Edgerton, 1994; Boso et al., 2007), dance therapy -- both using the BEST (Nelson, 2017) and DMT (Koch, 2015; Scharoun, 2014) -- and the SENSE theater model (Corbett, 2011, 2014a, 2014b, 2016).

Music in general is related to emotions and thus, music used through dance or vocal or instrumental practices also relates to emotional understanding, expression, and regulation (Eerola & Vuoskoski, 2013; Thaut, 1989). Through understanding expressions within music and using improvisation to interpret how to react according to that emotion, participants of this study noted developing comprehension of emotions and how is most appropriate to express those emotions to another person. In some cases, music is also noted as used for a coping mechanism (Torrance, 2003; Eerola & Vuoskoski. 2013; Thaut, 1989). This study supports this finding, as well, when student's noted using music in terms of emotional regulation when they get upset, for example. The current study suggests that music combined with physical expression -- as in the practice of musical performance or music or dance therapy -- provides an effective avenue of emotional expression, comprehension, and regulation.

The concept of “yes, and...” was often discussed in reflections, and demonstrates the usefulness of using musical performance techniques in teaching individuals with special needs -- namely, individuals with Down Syndrome (DS) -- to initiate novel conversational topics and meaningfully contribute to conversations. Common characteristics therapy goals for individuals with special needs include introducing or elaborating on conversational topics, turn-taking skills, and awareness in social communication scenarios (Torrance, 2003; Nelson, 2017; Corbett, 2016). The current study indicated that musical theater through this study may be useful in achieving goals associated with these challenges. Student reflections discuss willingness to initiate and offer novel ideas or concepts to activities over time, throughout the course. Not only were students with and without disabilities willing to introduce something new to the group, but student reflections also identified various students’ awareness of their own abilities in social contexts. Various students identified situations where they used turn-taking in conversation and remembered the concept of ‘yes, and...’ when communicating with someone in order to support what that other person might have said or done, and then adding to or building off of it. In terms of these social competencies, this study supports the concept of goal achievement in social communication awareness and abilities through the use of musical theater and improvisational practices.

Limitations

This study shed light on many aspects of social communication skills and abilities. However, it is important to note this analysis did not involve *all* written reflections from each of the 17 students. While all seventeen reflections were used to develop the codebook, but analysis and coding was only done to a subset of five reflections per assignment (five examples of

reflection one, five examples of reflection two, etc.). Thus, while each student's reflections were taken into account in the creation of the codebook, they were not each analyzed in depth.

Additionally, there is the potential for bias as I, the researcher, participated in this course as a student the year before the course from which these reflections were obtained. In this case, analysis of meanings or themes may have been influenced by my personal knowledge of the course, my own reflections on the section of the course I participated in, or due to my personal experiences in musical theater. However, the codebook and the coding was also conducted by a third-party coder, who has limited experience with theater in any capacity and no knowledge of the course or its structure, thus minimizing the potential for bias.

Conclusion

Through this study based on the course "Supporting Communication Through Performance," data collected through student reflections indicate the practice of musical theater or improvisation encourages individual confidence both within and outside of theater-based practice scenarios. This is accomplished through four unique mechanisms: a safe and fun environment that promotes a sense of comfortability in initiating within activities; the expression of individual creativity and unique adaptations or understandings of activities structures both within a group or individually; the use of movement and nonverbal communication measures to support the unique expressions individuals created; and finally through the applications of these skills or abilities to outside-of-class settings. Through the creation of comfortability through this safe environment, confidence develops over time and through engagement, thus encouraging the practice and use of these skills both within and outside-of the classroom or structure of musical theater. The social communication skills learned through this medium and generalized to the medium of everyday tasks and activities demonstrates the potential for the use of musical theater

and improvisation practices in therapy or educational setting to promote social awareness, comfortability, confidence, and engagement overall in an effective and creative manor. This avenue for learning these skills continues to develop and unfold, but data thus far suggests its usefulness in accomplishing goal achievement in areas of meaningful, creative, and effective engagement in social communication, for both typically developing individuals and those considered to be a part of special populations.

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ACADEMIC VITA

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Mission

Humbled in the pursuit of understanding every individual as extraordinary, I dedicate myself to identifying each exceptional individual's strengths, utilizing them in the pursuit of achieving each client's unique goals.

Education

The Pennsylvania State University, University Park PA

Major in Communication Sciences and Disorders (CSD)

Minor in Human Development and Family Studies (HDFS)

Study Abroad International Studies Institute, Palazzo Rucellai Florence, Italy, Spring 2018

Honors

Schreyer Honors Scholar (Inducted Fall 2017)

- Engage in academic activities and research to further my understanding of topics in courses attended as well as original research questions.
- Conduct research and academic writing on a thesis topic of choice under mentorship of a thesis instructor.
- Engage in lectures, discussions, and civic engagement with other scholars and throughout the community.

Recognized Employee, The ACRES Project (October/November 2018)

- Acknowledged for excellence in working with clients, in creating effective relationships fostering positive practice and impactful work and daily-living strategies.

Projects & Special Courses

Capstone: "Multiple Intelligences: Gardner's Theory as Applied to Teaching and Assessment"

- Examined Gardner's Theory, applied to realistic educational environments and analyzed within an alternative classroom for both typically and atypically developing students.
- Compared costs and benefits of implementation of such a program compared to a traditional classroom.

Honors Research Thesis

- Delved further into Gardner's Theory towards the notion of musical intelligence's relation to pattern recognition and use of this relationship in working with intellectually disabled individuals.
- Hypothesized how predictable but various structure of music and improvisation promote comfort with novelty (willingness to participate, initiation, and decreased sensitivity to change) through performance.

Schreyer Honors Option: “Exploring Rivaling Perspectives Surrounding ADHD Treatment for Adolescence.”

- Researched the conflict surrounding ADHD treatment findings, perspectives, and impacts.
- Understanding side-effects of treatments, and family perspectives regarding treatment option decisions.

Schreyer Honors Option: “Understanding Neurological-Correlates of Social Communication Behaviors and Autism Spectrum Disorder.”

- Promoting knowledge of Neuroanatomy, specifically as it affects individuals on the Autism Spectrum.
- Considering the current research of high-functioning adults with Autism Spectrum Disorder (ASD), question what the neurological correlates of this disorder impact in terms of social communication.

Teaching Assistant (Spring 2018, CSD 496: Supporting Communication Through Performance)

- Assist in demonstrations of activities and actively engaging in activities alongside students.
- Answer student questions and aid in creating a safe, fun, and effective environment during class time.
- Record attendance and gather reflection content for discussion of the course amongst students involved.

Teaching Assistant (Fall 2017, HDFS 129: Intro to Human Development and Family Studies)

- Responsible for note-taking, sharing notes with Graduate Teaching Assistants, Professor, and students missing class for an excused absence. Notes used in office hours, as reference to classroom content.
- Conducting weekly office hours to aid students with questions concerning content of the course.
- Accountable for grading certain projects and inputting grades into online gradebook.

Activities & Volunteering

For Good Performance Troupe (Volunteer 2016, Choreographer 2017 - Present)

- Advocate community bridging between Down Syndrome community and typical developing individuals.
- Coordinator of dance and movement of 6-10 musical numbers during 6-7 weekly practice sessions.
- Director of 35-50 individuals ages 2-65 years, ranging in intellectual strengths and abilities.
- <https://vimeo.com/260936130>

Made In Sapiro (Volunteer, Florence, Spring 218)

- A non-profit cooperative based in Florence, Italy, providing job opportunities to people with intellectual disabilities to foster social inclusion and integration through work and management in an artistic setting.
- Volunteer aiding individuals with tasks, prompting desired behavior, and orienting toward work tasks.
- <http://isiflorence.org/blog/2018/global-citizens-of-tomorrow/>

NSSLHA (Member, 2016 - Present)

- National member as of Fall 2018.
- Attend guest lectures, dialogue with peers and engage in SLP relevant service.

Relevant Work Experience

ACRES Project: Adults Creating Residential and Employment Solutions (Employee, Fall 2018 - Present)

- Advise youth and adults with Autism concerning transition from school to work, preparing for adult life.
- Practice household responsibilities, social skills and communication, and workplace conduct.
- Advocate for individuals and consult employers to create an optimal and effective work environment.

Conferences

ASHA Conference, November 2018 (Boston, MA)

- Present during conference alongside Dr. Krista Wilkinson on specialty course “Supporting Communication Through Performance,” concerning activities practiced and overall goals.
- Present alongside Dr. Krista Wilkinson concerning my thesis research within this specialty course, and preliminary findings of qualitative research conducted.
- Engage with professionals in the field and attend lectures concerning topics of interest.