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## Dance 461: Senior Thesis Project

Managing and Cherishing Uniqueness: Yoga Therapy as a Holistic Approach for Children with Autism Spectrum Disorder

Lindsey Ruth Briggs

Mentors: Natasha Snow Needles Professor Judith Scalin Professor Kristen Smiarowski

In partial fulfillment of The Bachelor of Arts Degree in Dance Loyola Marymount University December 10<sup>th</sup>, 2014 Managing and Cherishing Uniqueness: Yoga Therapy as a Holistic Approach for Children with Autism Spectrum Disorder

Table	of	Contents
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I. Resumes and Headshot
i. Resume1
ii. Curriculum Vitae2-7
iii. Headshot
II. Senior Thesis Project
i. Short Description of Project
ii. Goals of Project11
iii. Senior Thesis Research12-34
iv. References
v. Sanskrit Words and Definitions
vi. Appendices
A. Yoga Sequence for Children with Autism Spectrum Disorder
B. Yoga Sequence for Children with Autism Spectrum Disorder:
Focus on Language Stimulation
C. Yoga Sequence for Children with Autism Spectrum Disorder:
Focus on Language Stimulation
D. Yoga Sequence for Children with Autism Spectrum Disorder:
Focus on Physicality66-76
E. Yoga Sequence for Children with Autism Spectrum Disorder:
Focus on Self-Calming77-85
F. Yoga Sequence for Children with Autism Spectrum Disorder:
Focus on Social Interaction
G. Yoga Sequence for Children with Autism Spectrum Disorder:
Focus on Self-Calming95-103
H. Yoga Sequence for Children with Autism Spectrum Disorder:
Focus on Self-Esteem104-113
vii. Reflection114-117
viii. LMU Mission Statement118-119
III. Course Reflections120-137
IV. Artist Statement
V. Career Search144
VI. Appendices
i. Yoga Certificate145
ii. Parent Questionnaire146-148

#### Managing and Cherishing Uniqueness:

#### Yoga Therapy as a Holistic Approach for Children with Autism Spectrum Disorder

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"Managing and Cherishing Uniqueness: Yoga Therapy as a Holistic Approach for Children with Autism Spectrum Disorder" explores yoga therapy as a viable treatment option for children with Autism Spectrum Disorder. Yoga therapy is a potentially potent method for symptom relief on a physical, emotional, and intellectual level. Classes yearn for children to learn how to manage their symptoms and develop a new self-concept influenced by positive affirmations and yogic philosophy. Through yoga therapy children with Autism Spectrum Disorder learn to breathe, focus, and value the possibilities inherent in their uniqueness as well as address physical, emotional, and sometimes intellectual challenges. For the thesis project a series of nine lesson plans were developed which directly address the symptoms of Autism Spectrum Disorder. The five categories emphasized in the lesson plans were: language stimulation, physicality, social interaction, self-calming, and self-esteem. In addition each yoga class was composed in such a way to honor the need for structure and continuity especially in the given population of children with Autism Spectrum Disorder. The structure weaved through each yoga class aims to

calm the anxiety that coincides with change as well as to increase learning through repetition. The thesis project took a considerable focus on self-esteem by implementing positive affirmations in order to provide children the tools to develop a strong selfconcept influenced by what is incredibly right with them. Yoga is connection—the yoking of oneself to the entire universe. This thesis project explores how children with Autism Spectrum Disorder can connect to their personal strengths and learn to manage and cherish their uniqueness.

## Goals of Project

- Through my research and teaching of yoga to children with Autism Spectrum Disorders I hope to integrate my interest and minor in Psychology with my interest and studies in Dance along with my yoga practice.
- I want to continue the movement therapy work I have begun with Ready, Willing, and Able and to expand upon my knowledge of different movement therapy modalities.
- To be of service and to give a part of my self, my expertise, to others.
- To integrate dance and yoga for children on the autism spectrum so that they
  experience a creative, physical, and spiritual integration and experience pleasure
  while doing so. I will monitor affect, concentration, skill development, and social
  development.
- To utilize yoga practice in order to empower my students to embrace their whole selves, mind, body, and spirit.
- Through my teaching I hope to develop a greater sense of improvisation and creativity within my words and actions in order to meet each student where they are physically and emotionally on any given day.
- To become more self-confident as a teacher and a person as a whole and to utilize my connections with students in order to further understand and discover myself.

Managing and Cherishing Uniqueness: Yoga Therapy as a Holistic Approach for

Children with Autism Spectrum Disorder

Lindsey Briggs

Loyola Marymount University

## Managing and Cherishing Uniqueness: Yoga Therapy as a Holistic Approach for Children with Autism Spectrum Disorder

"Why can't you just sit still in your chair?" "Why can't you jump as high as the other kids?" "Why am I not as good at math as the other kids?" These are questions most children encounter at sometime over something. For children with Autism Spectrum Disorder these questions are daily reminders of how they do not measure up. Growing up and moving through the education system children often hear and cling onto their "downfalls" within the classroom and social settings. Optimal child development requires both attention to areas that are strong in addition to affirmation of areas that are weak. Medically there is not a single medication that can treat the core symptoms of Autism Spectrum Disorder, but among the methods used to treat the complexity of symptoms include medications for high energy levels, inability to focus, depression, or seizures in addition to traditional cognitive therapy. This paper explores yoga therapy, a less frequently utilized, but potentially potent method for symptom relief on a physical, emotional, and intellectual level. Yoga therapy yearns for children to learn how to manage and cherish their uniqueness and to develop a new self-concept influenced by positive affirmation and yogic philosophy. Through yoga therapy children with Autism Spectrum Disorder learn to breathe, relax, focus, and value the possibilities inherent in their uniqueness as well as address physical, emotional, or sometimes intellectual challenges.

#### A Brief History of Yoga

Yoga is an oral tradition that was passed on for approximately 5000 years before it was documented in writing. Patanjali, an Indian scholar, synthesized and documented

the philosophical yoga teachings in 200 AD in his book entitled the Yoga Sutras. The first scant references of yoga in 2000-1000 BC focused on breath control, yogic philosophy, and spirituality. In approximately 1000 BC the Brahmans—the spiritual leaders of the community-detailed the teachings of the Upanishads, which is a summary of oral practices regarding yogic philosophy (Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your power, 2013). Yoga existed as an oral tradition of breath work and philosophy passed down by the Brahmans. Notably, in the origin of yoga there was not the development of the physical yoga practice which is often the most emphasized aspect of yoga within modern-day yoga study. Rather yoga was a philosophical and spiritual school of teaching. Through the development of works like the Mahabharata, Bhagavad Gita, and the Upanishads, the oral lessons of yoga became documented along with the three paths of yoga— Jnana, Bhakti, and Karma Yoga—as revealed to Arjuna from Krishna in the Bhagavad Gita. It was not until 200 CE that Patanjali wrote the Yoga Sutras which included the eight-limed path—a clear formulated path towards yoga, or the union of the self with the entire universe (Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your power, 2013). Patanjali's philosophical teachings outlined in the Yoga Sutras have become the backbone of most modern yoga practices. Through detailed guidance on the physical, emotional, and spiritual paths of yoga, practitioners are able to experience enlightenment of true yoga or the "yoking" of oneself to the entire universe. The intention behind Patanjali's eightlimbed path and sutras was purification of the mind, body, and spirit through alignment to the mind. His sutras are defined as "an unbroken thread of consciousness that draws together the beads of thought and all human experience" (Satchidananda, 2012).

Patanjali's concise sutras for spiritual enlightenment continue to guide yogis to unveil their true selves through yoga study. His second sutra—Yoga chitta vrtti nirodah— meaning, "Yoga is the cessation of fluctuations of the mind," continues to thrive among most yogic traditions in the 21<sup>st</sup> century (Satchidananda, 2012). Through yoga one is able to connect mind, body, and spirit via *pranayama* (or breath), in order to quiet the mind and connect with one's greater life purpose.

The eight-limbed path establishes the foundation of yoga or the "yoking" of the self with the universe. The philosophical practices outlined in the eight limbs progress from the most external and general concepts to the more internal and subtle philosophical practices. The progression of the eight limbs are as follows: Yama (or restraints), Niyamas (or observances), Asanas (or seat/postures), Pranayama (or breath), Pratyahara (or withdrawal from the senses), Dharana (or focus), Dhayana (or meditation), and Samadhi (or enlightenment and non-duality) (Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your power, 2013) (See Table 1 for a full list of Sanskrit words and definitions). Samadhi, the eighth and final limb, is the complete equilibrium of the mind and contentment that is described in Patanjali's second sutra "Yoga is the cessation of fluctuations of the mind." When encountering the eight-limbed path it is important to observe that asanas or the physical postures of yoga fall into the third category. While in many Western forms of yoga there is a large emphasis on the physical postures of yoga or *asanas*, it is essential to be cognizant of the path as a whole. As one embarks on the path they begin at the yamas and niyamas which create the foundation for a physical practice and ultimate yoking of oneself to the universe.

The *vamas* and *nivamas*—or restraints and observances—are a concrete starting place for a yoga practice because they concisely dictate how a yoga practitioner interacts outwardly towards the world and internally towards the spirit. The first yama ahimsa, or non-violence, means becoming aware and minimizing the suffering you may bring to others in thought, word, and action. Historically *ahimsa* has been the basis for vegetarianism and veganism within a yoga practice in order to minimize the suffering of fellow animals within our shared environment on Earth. Satya, or truthfulness, translates into honest speech, truthful connection, and keen listening. When one is engaged in a true practice of satya his or her thoughts and actions will not only be in union with one another, but will also be dictated by honesty and necessity. The third yama asteya, or non-stealing, is implemented through the practice of not taking things that do not belong to you whether that applies to material goods, other's time, or intellectual work. Through asteva one finds the balance between give and take in order to settle into a state of equilibrium. One way in which asteya often manifests itself into a modern yoga study is through honoring other people's time by being punctual for appointments and being mindful of the inherent value of other people's time. The fourth yama brahmacharya, or moderation of the senses, is defined as abstinence from overindulgence in food and sex. Historically brahmacharva specifically refers to sexual moderation and the abstinence from sexual activity. Within a modern context the practice of brahmacharya can be observed through faithfulness to one's partner via physical action and mental thoughts. The last *yama aparigraha*, or non-hoarding, is practiced through taking only as much as you need and being mindful of the needs of others. Through the observance of this yama, one will discover that constant yearning for the next great thing only creates a sense of

lack and of suffering. *Aparigraha* leads to contentment with one's possession and an acute awareness towards the boundary between necessity and excess. The second limb of yoga the five *niyamas* which process the five *yamas* address personal actions within one's yoga practice.<sup>1</sup> Similar to the *yamas* a yogi must adapt a mindful and aware perspective in order to implement the teachings of the *niyamas* into their life. Traditionally practitioners proceeded through the yogic path in chronological order, first starting with the *yamas*, then the *niyamas*, and then proceeding through the rest of the eight-limbed path as mapped out by Patanjali.

In my personal practice, I explored the interconnection of my mind, body, spirit through observation of the *yamas* and *niyamas*. Through my committed practice on and off the yoga mat I feel most connected to my true being via the stillness of my mind coupled with the ever-present flow of movement and life. Yoga has emphasized the importance of movement counterbalanced with stillness and quieting of the mind. By allowing my breath be my soul focus and letting my body and mind become quiet I practice true stillness. Such stillness leads to *santosha*, or contentment—recognizing the duality of movement and stillness consistently in my life and coupling such awareness with *pranayama*, or breath, in order to fully participate in life as a whole person—mind, body, and spirit. Through physical and mental stillness I connect with my most genuine self and with my true purpose—to spread emotional grace and light-heartedness through movement. Teaching yoga to children with Autism Spectrum Disorder allows me to

<sup>&</sup>lt;sup>1</sup> For the purposes of this paper the details of the *niyamas* are not listed in full. For more information on the *niyamas* and their definitions go to http://www.mindbodygreen.com/0-3122/The-5-Niyamas-of-Yoga.html

assimilate many of my passions and purposes including: teaching, working with children, and using movement as a modality for physical, mental, and emotional healing.

#### Yoga vs. Yoga Therapy

While yoga provides the foundations of yogic breathing, the sutras, and the eightlimbed path, yoga therapy is, "the appropriate application of these teachings and practices in a therapeutic context in order to engage the client/student's energy in the direction of desired goals" (Goldberg, 3). Some of the pertinent goals of yoga therapy include: reducing and eliminating physical, mental, and emotional symptoms, prevention of the reoccurrence of patterns of suffering, and the overall health and wellbeing of the client (Goldberg, 2013). While such improvements in various parts of one's mental, emotional, and physical well-being often coincide with a yoga practice, it is important to draw the distinction that mental and emotional shifts are the sole focus of yoga therapy. Yoga therapy has been utilized to treat a variety of mental, emotional, and physical aliments including but not limited to: depression, anxiety, eating disorders, chronic pain, and relief of symptoms from chemotherapy ("Find the Right Therapist", n.d.). Yoga therapy is utilized in small group, private, and clinical settings within hospitals and residential treatment centers. According to the International Association of Yoga Therapists (IAYT), "[the number of yoga therapists] has more than tripled in the last three years, and the number of schools offering [yoga therapy] training has doubled over the past two years" (Isaacs, n.d.). As the field of yoga therapy continues to grow there will be increased utilization of yoga therapy as a viable treatment option. One of the growths within the field of yoga therapy is adoption of children as clients in addition to adults. Within the context of yoga therapy for children it is pertinent to keep in mind that in most cases the

parents or caregivers seek out yoga therapy rather than the child themselves. For this reason it is imperative to engage the child in the yoga therapy practice in order to optimize responsiveness and future success.

#### What is Autism?

According to the DSM-IV-TR, "The essential features of Autistic Disorder are the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests" (American Psychiatric Association, 2013). Autism Spectrum Disorder, or ASD, is a developmental disorder that typically surfaces during the first three years of life. Although the causes of ASD are debated, it is believed that ASD may be due to a neurological disorder that effects the development and functioning of the brain (Radhakrishna, Naghuram, & Nagendra, 2010). Children with ASD exhibit abnormal or delayed development in language, social skills, and behavioral repertoire. Such symptoms of delayed development can be seen in "failure to develop age appropriate peer relationships, lack of spontaneous seeking to share interests and achievements with others, and lack of social or emotional reciprocity" (Kenny, 71).

Notably with the progression of modern medicine there is increasingly more information and studies on ASD. As a result a spectrum by which we view ASD has been developed. Children on the spectrum will share and exhibit the common characteristics of ASD which are: abnormal development of language, social skills, and behavioral repertoire. Among the listed characteristic each child will exhibit a unique blend of degrees in each category (Ehleringer, 2010). For example, a child may be low in verbal skills but very high in the processing of social cues or vice versa. Alongside the

development of the spectrum the term Asperger's Syndrome was created to identify a specific type of autism on the spectrum in which there has been no delay in language development but all other characteristics of ASD are present. With the development of the spectrum, the treatment and effective care of ASD have shifted towards a unique case-by-case approach. For example, high functioning individuals seek treatment options to specifically learn social skills and to increase self-esteem (Ehleringer, 2010). Previously traditional therapy was significantly outcome driven, focusing on token economies in which a child earned a specific reward for completing an activity (McIntyre, n.d.). Recently, there has been movement confronting the true potential of children with ASD and proposing that traditional therapy supported children to a functioning level, but kept them from growing to their fullest potential. Before the development of the spectrum children who showed mild symptoms of ASD including deficient social skills and delayed language were often undiagnosed because they were not identified as having extreme enough symptoms. Kenny (2002) notably points out that based upon the definition in the DSM-IV-TR, "the term autism in fact applies to a wide variety of individuals, ranging from those who are nonverbal and seemingly totally self engaged and who require and receive special services to those who are highly verbal yet very socially awkward with poor conversational skills and who even ten years ago would not have received any special accommodations or services, but certainly would have benefited from them" (Kenny, 72).

The Center for Disease Control and Prevention reports that the number of children diagnosed with ASD has increased to 1 in 88 births and within 1 in every 70 boys in the United States of America (Ehlreinger, 131). While the amount of diagnoses has increased

in the recent years it is also pertinent to keep in mind that in addition to an increase in diagnosis there has also been an increase in the spectrum. High functioning children who may have previously gone undiagnosed now are receiving a diagnosis due in part to the creation of the spectrum. Nevertheless with the rising diagnoses of autism within the spectrum it is essential to continue to evolve in the understanding and treatment of ASD. While children do not outgrow ASD, studies have shown that early diagnosis is the key to improved daily functioning.

Alongside diagnosis of ASD in children often comes the diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) and Sensory Integration Disorder (SID). ADHD is described as "a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with development, has symptoms presenting in two or more settings (e.g. at home, school, or work), and negatively impacts directly on social, academic or occupational functioning" (American Psychiatric Association, 2013). The symptoms listed above of ADHD must be present before age 12. Sensory Integration Dysfunction (SID) is a deficit in the capacity to take in information from the environment through the senses-smell, taste, vision, hearing, and touch- and to process this information with prior knowledge in order to create meaningful and appropriate responses (Ehleringer, 2010). Sensory integration occurs in the central nervous system and is a fundamental process for coordination, attention, arousal levels, autonomic functioning, emotions, memory, and higher-level cognition (Kenny, 2002). Symptoms of such deficiencies in integration processing include but are not limited to: difficulty staying focused, variable activity levels, and trouble relaxing after physical stimulation. In addition, research has shown the vestibular system, the area of the brain responsible for balance and movement,

plays an vital role within Sensory Integration Dysfunction. Without the proper functioning of the vestibular system a child may not acquire proprioceptive skills such as kinesthetic awareness, or being aware of where he or she is in space. The lack of acquiring spatial awareness and reasoning in children ASD and SID can result in both physical and social tribulations.

Through observation of the behaviors and regimented patterns of children with ASD it is apparent there are certain areas of the brain, such as the frontal lobe, that are associated with regulating the functions that are deficient in ASD children. *The Traumatic Brain Injury Resource Guide* defines the function of the frontal lobe as to regulate consciousness, initiate activity in response to the environment, filter our emotional and expressive language, assign meanings to words, memory formation, and problem solving. Based upon the observation of children with ASD, hypotheses have been drawn that there may be deficiencies in the frontal lobe in children on the spectrum. Notably Kenny (2002) recognizes some of the common symptoms of deficits in the frontal lobe are also observable symptoms of ASD including, "inability to plan a sequence of complex movements, loss of spontaneity in interacting with others, loss of flexibility of thinking, persistence of a single thought, inability to focus on a task, mood changes, changes in social behavior/personality, difficulty problem solving, and an inability to express language" (Kenny, 72).

#### **Research and Autism Spectrum Disorder and Yoga Therapy**

There have been a number of studies on yoga therapy and Autism Spectrum Disorder and among the most significant studies is Kenny's research entitled, "Integrative movement therapy: Yoga-based therapy as a viable and effective intervention for autistic

spectrum and related disorders". For the purposes of this research we will be mainly focusing on Kenny's (2002) research and adapting her work for the creation of yoga lesson plans for children with ASD (See Appendix A-H for the full series of lesson plans). Kenny (2002) summarized the Integrative Movement Therapy (IMT) yoga approach and the foundation of their six core principles that directly correlate to the symptoms of Autism Spectrum Disorder. The Integrative Movement Therapy approach is both an individual and group therapy practice, which combines yoga, speech pathology, and clinical psychology counseling. IMT has proven to be successful in the reduction of symptoms in children with Attention Deficit Hyperactivity Disorder (ADHD), Learning Disabilities, Pervasive Developmental Delay, Sensory Integration Dysfunction, and Dyspraxia (Kenny, 2002). Based on previous success in the efficiency of treatment of the listed disorders, Kenny hypothesized Integrative Movement Therapy would be equally as successful when presented to children with Autism Spectrum Disorder.

The six core principles of Integrated Movement Therapy are: structure and continuity, social interaction, language stimulation, self-calming, physical stimulation, and direct self-esteem building (Kenny, 2002). We will continue by looking into the scientific reasoning behind all six-core principles and their profound effect in the therapeutic setting. The first principle

structure and continuity is marked as a keystone element for the learning and confidence of both adults and children alike. A learning environment with a repetitive nature creates a standard by which children can observe their progress, in addition to the innate comfort of knowing what is coming next in a yoga class sequence. Children with ASD are often strict to adhere to certain patterns and schedules and diversions from such regiments can

be emotionally tolling for the child. Embracing rather than fighting the need for routine can create continuity within the therapy setting. Kenny remarkably notes that among many traditions of yoga including Ashtanga and Bikrahm Yoga classes are set sequences of *asanas*, or postures, and *pranayama*, or breathing exercises. Routine and consistency allows students to explore the boundaries of one's capability and to ultimately move towards true learning and independence.

The second core principle is physical stimulation. In the field of child development it is widely accepted that movement increases language learning. Empirical studies have demonstrated that exercise enriches cognition and furthermore when students are simultaneously engaged in movement and language more complex and organic speech patterns occur (Kenny, 2002). With the diagnoses of ASD it is a general observation that these children lack body awareness, muscle coordination, and spatial reasoning. The core diagnosis that physical stimulation aims to address is Sensory Integration Disorder which is a disorder that often co-exists with ASD. In Kenny's (2002) research it was observed that IMT helped children with SID increase their coordination and balance allowing them to become more successful at routine daily tasks. Engaging in a yoga practice through the coupling of *asanas* and *pranayama* stimulates sensory integration resulting in: increased body awareness, coordination, and self-confidence (Kenny, 2002). In addition through yoga postures that invert the body so that the heart is above the head the vestibular system, which has been shown to be deficient in children with ASD, is activated. The vestibular system controls balance and is connected with concentration and focus. In asanas that invert the body allowing the heart to come below the head, the cilia of the vestibular system are activated which increases muscle tone,

muscles extension, and the overall functioning of the muscle. Kenny (2002) states that inversions such as *adho mukha svanasana* (or downward facing dog) and *trikonasana* (or triangle pose) stimulate the vestibular system increasing muscle tone and balancing abilities (See Appendix A-H for pictures of yoga poses and associated benefits). In addition through the integration of *pranayama* and *asanas* the parasympathetic nervous system activates which calms the nervous system and is synonymous with healing and rest through the integration of the right and left side of the brain (Kenny, 2002). Breath work learned in yoga therapy translates outside the classroom as parents begin to note their children engaging in breathing exercises during stressful moments throughout their day in order to regulate anxiety and self-stimulatory behaviors (Kenny, 2002).

The third core principle is social interaction. During Integrative Movement Therapy children are interacting with their therapist, mirroring social cues off of the therapist, and interacting with other students in the group therapy setting. The lack of social and emotional reciprocity makes social interactions difficult and often confusing for children with ASD. It is not an uncommon experience that children with ASD miss out on physical education and social interactions at school because often they are the last child to get picked to be on a sports team (Kenny, 2002). From such experiences competitive sports and physically strenuous activity often elicit negative thoughts and behaviors for children on the spectrum. Yoga allows children to participate in physical fitness in a non-competitive environment that holds a sense of peace. Through the increased body awareness developed in yoga practice children harness crucial social skills and become more self-confident. The *asanas* and physicality of yoga aid children to acquire more proprioception skills in order to better understand and maintain proper

personal space boundaries (Kenny, 2002). In addition, through social interaction whether with a therapist or another student, children learn proper non-verbal communication skills such as eye contact and the expression of emotions.

The fourth core principle of language stimulation varies between students, but is a unique emphasis of the IMT program. While a lack of language skills is one of the defining characteristics of ASD there is a wide range of observed behaviors from children who are non-verbal to children who communicate in spoken language but use repetitive language to children with Aspersers Syndrome who have highly developed language. The approach to language stimulation in yoga therapy greatly depends on the age range and functioning of a student. Older students with well-developed language are instructed in rules for conversation and given problem-solving tasks while younger children are able to explore language through imaginative play. Children are provided a multifaceted learning experience through the learning of the series of postures, categorizing them in terms of animals, and also learning their Sanskrit names. The IMT approach has also been successful in working with non-verbal children because the children are motivated through physical interaction and positive reinforcement. Kenny observed within the population of non-verbal children there were significant improvements in verbal communication within as few as six sessions. Such improvements in verbal communication include: following a visual schedule, verbally identifying a pose from a picture, and engaging in social interaction with the therapist (Kenny, 2002).

The fifth core principle is self-calming. Research of ASD children has shown significant deficits in the prefrontal cortex, the area of the brain associated with working memory. The prefrontal cortex allows us to be moved by ideas and concepts rather than

by simple physiological stimulus (Kenny, 2002). The yoga studio allows for a calming space through the atmosphere of serenity, relaxing music, and a peaceful presence of the teacher. The continuity of therapy sessions also promotes a sense of inner-calmness within the classroom and aids in ASD childrens' need for routine. In addition, by ending every session with savasana, or corpse pose, students begin to acquire the skills to take time and rest. Parents and teachers alike begin to notice that although most students resists the idea of rest and savasana at first, after a few sessions students begin to ask for savasana, stating it is their favorite pose. In addition Kenny (2002) discovered that students respond well to visualization techniques and progressive relaxations, which allow them to calm down, focus, and concentrate. One of the most notable ways in which students take yoga outside the classroom is within the application of relaxation and breathing techniques in order to regulate self-stimulatory behavior. Self-stimulatory behaviors are stereotyped repetitive motions and mannerisms such as hand flapping or complex body movements which often coincide with high levels of anxiety (Kenny, 2002). Providing students with the awareness to recognize high levels of anxiety and arousal allows them to implement their breathing techniques in order to lessen these feelings and empower the child (Kenny, 2002).

Lastly, the sixth principle is self-esteem building and encouraging a sense of belonging within the community. Through increasing physical awareness, language skills, social skills, and implementing self-calming techniques, students experience enhanced self-esteem. Developing the student's self-esteem is the single most important factor in increasing all other areas of growth within the therapeutic realm. The focus of increasing self-esteem is prioritized in all yoga therapy practices and is a unique

emphasis of yogic philosophy. Rather than pointing out what is "wrong" with children with ASD, Integrative Movement Therapy aims to affirm what is incredibly right about each child and what makes them unique. Through yogic philosophy and the honoring of each soul as distinctive and special, children begin to focus on the good within themselves. The heightened sense of spirituality and belonging innate in a yoga practice allows children to focus on the divine within them and switch their perspective to manage and cherish their unique qualities (Kenny, 2002).

Several other studies have further examined the effects of yoga therapy on children with Autism Spectrum Disorder. Within these studies there are a variety of common threads which elaborate on the six core principles of IMT: structure and continuity, social interaction, language stimulation, self-calming, physical stimulation, and direct self-esteem building (Kenny, 2002). Similar to Kenny (2002), Ehleringer (2010) study entitled "Yoga therapy in practice: Yoga for children on the autism spectrum" identified fundamentals of creating a yoga classroom and practice for children with ASD. In addition she addressed how these fundamental elements can lead to a meaningful and transformative practice. Ehleringer, a special education teacher and registered yoga teacher, conducted an observational experiment in her own high school classroom of students on ranging parts of the spectrum. Previous to introducing yoga into her classroom, Ehleringer noted that the students were incredibly detached from their own bodies and this detachment translated to a disengagement to life at school and in the community at large. In addition, similar to Kenny's core principle of social interaction, Ehleringer witnessed an internal struggle in which her students were incredibly social and sought connection, but did not understand how to express themselves and interact with

other students in a socially acceptable way. Ehleringer introduced yoga into her classroom, "to help them integrate outside information and to build an inner connection with themselves in a more personal and holistic way" (Ehleringer, 132). Ehleringer (2010) also emphasized routine in her classroom similar to Kenny's (2002) research, and while the classroom was hectic at first the students began to settle into the routine of the yoga class after approximately eight sessions. Consistent with observations made by Kenny (2002), Ehleringer (2010) noted that students acquired the skill to recognize when they became stressed and were able to implement yogic deep breathing in order to regulate their emotions. The implementation of *pranayama* (or breathing) resulted in a decrease in self-stimulatory behaviors within the classroom. Ehleringer (2010) was impressed by the students' ability to generalize the skill of yoga breathing into a different setting, as the translation of skills from one specific setting into a new setting is one of the fundamental desires of true learning as a whole.

From the yoga therapy practice the number of outbursts in the classroom decreased and the amount of on-task behaviors increased. As Kenny (2002) also noted in her observations, the children seemed to be more receptive towards the physicality of yoga because it was perceived as gentle and did not conflict with their preexisting identification of not excelling at physical activities and exercise. Similar to Kenny, Ehleringer (2010) emphasized the therapeutic benefits of *asanas*, *pranayama*, and deep relaxations, and their effects on language development. In addition she highlighted the importance of creating a peaceful yoga environment with minimal distraction in order to accommodate for children with Sensory Integration Dysfunction and to aid in developing focus (Ehleringer, 2010). Likewise it is imperative to create a routine and set clear

intentions for practice while communicating openly and truthfully to the child what these expectations are or the practice of *satya*, or truthfulness. Through addressing questions such as "What am I supposed to be doing?" "How will I know when the task is complete?" and "What is next after that task is finished?" the students' anxiety was lessened (Ehleringer, 2010). Importantly Ehleringer connected with each child's support group including their family, teachers, and therapists in order to obtain background information and to create a supportive environment for the student's new ventures. She emphasized the importance of creating a support system as she humbly acknowledges that working with children with ASD can be challenging, as it requires the teachers full presence in mind, body, and spirit. Through maintaining communication with each student's support system the student but also the teacher can be supported by family and friends of the child.

Radhakrishna, Naghuram, and Nagendra (2010) study developed a yoga therapy program with similar core values to Kenny (2002) and Ehleringer (2010) research including repetition, social interaction, and *pranayama*. Radhakrishna, Naghuram, and Nagendra (2010) study entitled "Integrated approach to yoga therapy and autism spectrum disorders" took place over the course of two academic years with six students with Autism Spectrum Disorder. The students were evaluated before, during, and after yoga therapy treatment and the data was compared against a control group (Radhakrishna, Naghuram, & Nagendra, 2010). The researchers assessed children based on the following fundamental categories: communication, social, cognitive, and adaptive skills. Among some of the behavioral measures used were: eye-to-eye gaze, sitting tolerance, body awareness, and self-stimulatory behavior (Radhakrishna, Naghuram, &

Nagendra, 2010). Conversations with the parents revealed that the children's lack of eye contact, hyperactivity, and resistance to change often made everyday life difficult and was a place of tension within the household. After twelve yoga sessions teachers noticed marked changes specifically in children's eye gaze and sitting tolerance (Radhakrishna, Naghuram, & Nagendra, 2010). Through the comparison of baseline characteristics to post-yoga measures there were significant results in the increasing of imitation, communicating, playfulness, joint attention, and eye-gaze behaviors. The parents reported that these new learned skills translated to their family relations at home and eased some of the struggles associated with social interactions and children with ASD. Like the previous researchers, Radhakrishna, Naghuram, and Nagendra (2011) noted the importance of creating a safe space and how in particular the use of individual yoga mats allowed children to feel protected and more at ease. The creation of a safe space and personal yoga environment increased the student's comfort and self-esteem in order for more profound learning to occur.

Further research by Rosenbalt, Gorlanta, Torres, Yarmush, Roa, Park ... Levine (2011) examined more thoroughly the relaxing effects of yoga therapy coupled with dance/movement therapy. The 2011 study entitled "Relaxation response-based yoga improves functioning in young children with autism: A pilot study" noted the benefits of dance/movement therapy for children with ASD based upon previous studies. Rosenbalt, Gorlanta, Torres, Yarmush, Roa, Park ... Levine predicted there would be a significant and positive correlation between yoga therapy and the overall lifestyle improvement of children with ASD. The researchers developed a multimodal therapy program of yoga, dance, and movement therapy based classes that were created to elicit the relaxation

response in children. Researchers were interested in how stimulating relaxation would affect the behavioral symptoms of children. The study was a within-subjects design including twenty-four children between the ages of 3-16 who were all accompanied by a parent or caregiver for the 8-week program. By the end of the 8-weeks most children were able to successfully execute all 18 asanas included in the class sequence. Results of the study showed a significant effect size of yoga therapy programs on a child's behavioral symptoms. Researchers also discovered that such an intervention yielded the most significant result in the latency-age, ages 5-12 compared to the all-age group. From these results the researchers could infer that the program's combination of yoga, dance, and music, created a unique emphasis on the interplay of movement and sound which contributed to a greater effect in the latency-age children who are still in a developmental period. While significant improvements in behavioral sympotms were observed for children outside of the latency-age children, the most significant improvements were among children in the malleable developmental state. Rosenbalt, Gorlanta, Torres, Yarmush, Roa, Park ... Levine's (2011) research and results in regards to latency-age children with ASD supports the importance of early diagnosis of ASD in order to relearn new patterns while children are still in a developmental stage.

Lastly, Goldberg designed a pilot yoga therapy program in 2004 for children with ASD that highlighted relaxation skills so they could be more self-regulating as they transitioned into more stressful environments. The study entitled, "Creative relaxation: A yoga-based program for regular and exceptional student education" consisted of upperelementary students with ASD who were preparing to transition into middle school. The six students in the study were chosen because of their propensity to anxiety and

dysfunction under stress as evaluated by their parents and teachers. The program included *asana, pranayama*, role-playing, guided imagery, discussion, music, and a serene environment (Goldberg, 2004). The children were evaluated on pre- and post-test skills according to the observations of parents and the teacher in addition to pre- and post-yoga therapy pulse rates. Behavioral observation revealed lower levels of stress after sessions and the physiological measure revealed lower pulse rates. The student's pulse was over 90 percent lower at the end of class than at the beginning of the yoga session. In addition, students showed deeper breathing and increased stillness; the new-harnessed skills of stillness and relaxation were predicted to set the children up for success as they transitioned into a middle school classroom where they would be instructed to sit still for extended periods of time. As observed in Kenny (2002) and Ehleringer (2010) research, children were able to generalize their breathing skills into other settings allowing them to self-monitor during anxiety provoking situations including transitioning into a new education environment (Goldberg, 2004).

#### **Relevant Conclusions**

As seen through the extensive research, yoga therapy has profound effects on children with Autism Spectrum Disorder—physically, emotionally, and mentally. Yoga therapy sees the child as a whole person rather than just addressing the mental aspects of the child. Through *pranayama* children are empowered to self-monitor and become more aware of their anxiety especially in regards to their need for routine. One of the most widely observed benefits noted in the research on yoga therapy was the utilization of breath work in order to manage self-stimulatory behaviors and anxiety. In addition the physicality of the yoga postures along with language stimulation enriches cognition and

complex language patterns while simultaneously addressing Sensory Integration Disorder as children gain more balance and strength. Through the physical *asanas* in addition to social interactions, children learn vital proprioceptive skills such as kinesthetic awareness. Such kinesthetic awareness translates into increased connection during social interaction by understanding and honoring personal space boundaries. The social interactions facilitated through small group and private yoga therapy sessions teach children non-verbal communication skills such as eye contact and the expression of emotions. Along with the learning of proper eye-gazing behaviors there was a significant increase in sitting tolerance, communication, playfulness, and awareness of the child's body in space. Parents noted that these new acquired skills translated into the child's home and eased some of the daily struggles in the household such as sitting at the table for an extended period of time over a family dinner.

Yoga therapy prepares children to be more successful within the education setting. Through physical postures and breath work children are provided the tools to focus and tolerant sitting for an extended period of time, along with a positive outlet for physicality. Most importantly yoga therapy enlightens children with Autism Spectrum Disorder to connect with what is incredibly right with them. Yoga is connection—the yoking of oneself to the entire universe. Through yoga therapy children with Autism Spectrum Disorder are able to yoke to their personal strengths and learn to manage and cherish their uniqueness.

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Table 1. Sanskrit Words and Definitions.

Restraint Observances Seat or postures		
Seat or postures		
Breath		
Withdrawal from the sense		
Focus		
Meditation		
Enlightenment and non-duality		

#### Appendix A

Lesson Title: Yoga Sequence for Children with ASD Lesson: #1 of 9 Technical Level: Beginner Duration: 20-50 minutes (depending on student's needs)

Adapted From: "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

#### Main Objectives/Goals:

- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

#### **Learning Outcomes:**

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will feel more comfortable in social interactions with the teacher and the student will gain a sense of self-confidence through identifying their strengths and unique qualities.

## **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)
- Sticky yoga mats
- Blocks and straps
- Pictures of the various poses

• Obtain relevant history from parents/caregivers

### Lesson Guidelines:

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. Namaste—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class** Debrief the child on what class is going to look like and ask them if they have any questions.

## 5. Breathing Exercises

- Ujayi
- Belly Breathing
- Lion's Breath
- Horse Breath
- 6. Poses

- Warm-Up Poses
  - Sitting Pose
  - Cat
  - Cow
  - Mountain Pose
  - Spine Rolls
- Strengthening Poses
  - Chair Pose
  - Triangle Pose
  - Side Angle Pose
  - Downward Facing Dog
  - Warrior 1
  - Warrior 2
  - Pasarita/ Standing Forward Bend
  - Tree
- Release of Tension Poses
  - Sphinx Pose
  - Cobra Pose
  - Bridge Pose
  - Seated Forward Bend pose
  - Spread Leg Forward Bend pose

- Butterfly pose
- Seated Spinal Twist pose
- Child's Pose
- 7. Savasana/ Final Relaxation—Allow child to lie still and relax and facilitate an environment to do so. The environment may change form day-to-day and childto-child, so the teacher must be attuned to the student. Walk the student through a guided full body relaxation by having them focus on relaxing one muscle at a time. Take a full body scan starting at their head and working all the way down to their toes. Let the student know, "When we relax our muscles we want them to be nice and soft like spaghetti noodles." After the student has relaxed into their final relaxation you have the option to do the "noodle test" if the student feels comfortable. For the "noodle test" gently pick up their legs and arms and gently toss and sway them from side to side in the air like spaghetti noodles. Catch their arms and legs on the way down and encourage the students to relax their body parts so they become more soft and "noodley." If their muscles are relaxed then you will be able to perform the noodle test with little resistance. If the student is having a hard time encourage them to relax saying, "Relax your arms completely" or "Pretend your legs are taking a nap." If at first it is hard for the student encourage them to keep trying and let them know that they will catch on!
- 8. Namaste/ Checking In—The students and teacher say "Namaste" at the end of each session and the teacher checks in with how the student is feeling physically, mentally, and emotionally.

#### **Benefits of Breathing Exercises:**

- Ujayi Breathing
  - Quiets the brain
  - Slows the flow of the breath
  - Creates internal heal
- Belly Breathing
  - Quiets the brain
  - Slows the flow of the breath
- Lion's Breath
  - Relieves tension in the face and chest
  - Helps keep the platysma, a flat rectangular shaped muscle at the front of the throat, firm
  - Tradition texts state lion's breath destroys disease and helps initiate the three locks in the body, or bandhas.
- Horse Breath
  - Relieves tension in the face and chest
  - Allow the breath to slow and heart rate to calm

## Warm-Up Poses:

Picture	English Name	Sanskrit Name	Benefits
Sector Contraction of the sector contraction	Sitting Pose	Sukasana	<ul> <li>Calms the brain</li> <li>Strengthens the back</li> <li>Stretches the ankles and feet</li> </ul>
	Cat	Marjaryasana	<ul> <li>Stretches the backside of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
NHEMES	Cow	Bitilasana	<ul> <li>Stretches the front side of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
DAVO IDAMPHEZ	Mountain	Tadasana	<ul> <li>Decompresses vertebral column</li> <li>Ignites the nervous system</li> <li>Strengthens the shoulders</li> <li>Opens the chest</li> </ul>

MCHAELWK.GRUX	Forward Fold	Uttanasana	<ul> <li>Creates a gradual yet deep spinal release</li> <li>Opens the backside of the body</li> <li>Oxygenates the central nervous system, the brain and spinal cord</li> <li>Soothes and revitalizes the central nervous system for calming effects</li> <li>Stimulates and rinses abdominal organs</li> </ul>
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# **Strengthening Poses:**

Picture	English Name	Sanskrit Name	Benefits
	Chair	Utkatasana	<ul> <li>Strengthens the back, quadriceps, and hips</li> <li>Increases heart rate and subsequently increases circulation throughout the body</li> <li>Stimulates metabolism</li> </ul>
Ended where	Triangle	Trikonasana	<ul> <li>Opens the sternum, ribcage, and cardiovascular system</li> <li>Creates space throughout upper back and long muscles of the spine</li> <li>Stretches the sides of the body</li> </ul>

MON EARCEDUM	Extended Side Angle Pose	Utthita Parsvokonasana	Increases Balance and Coordination Strengths and stretches the legs, knees, and ankles Stretches the groin, spine, waist, chest, lungs, and shoulders Stimulates abdominal organs Increases stamina and concentration
DRUCINING	Downward Facing Dog	Adho Mukha Svanasana	<ul> <li>Decompresses the spinal column</li> <li>Strengthens the shoulders and arms</li> <li>Opens the shoulder girdle and trapezius</li> <li>Creates an inversion in the body (where the head is below the heart) allowing fresh oxygen to come to the central nervous system</li> </ul>
MINICUPATR	Warrior 1	Virabhadrasana I	<ul> <li>Cultivates focus, awareness, and power Increases flexibility of the hips and torso Strengthens quadriceps</li> </ul>
GINBANDE	Warrior 2	Virabhadrasana II	<ul> <li>Both strengthens and stretches the legs and ankles</li> <li>Stretches the groin, chest, lungs, and shoulders</li> <li>Stimulates the abdominal organs</li> <li>Increases stamina and focus</li> </ul>

	Cobra	Bhujangasana	<ul> <li>Strengthens the spine</li> <li>Stretches the chest, lungs, shoulders, and abdomen</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> <li>Opens the heart and lungs</li> </ul>
	Bridge	Setu Bandha Sarvangasana	<ul> <li>Opens chest and increases lung capacity</li> <li>Lengthens the abdominal wall</li> <li>Tones gluteus and thighs</li> <li>Stabilizes and releases the lower back</li> </ul>
MARTIN SCONDUTO	Seated Forward Bend Pose	Paschimottanasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
RORY EARNSHAW	Spread Leg Forward Bend Pose	Upavistha Konasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>

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MARTY SCONDUTO	Butterfly Pose	Konasana	<ul> <li>Opens hip flexors</li> <li>Releases the periformis muscle</li> </ul>
ARS MERE	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>
RCAY ENRICOLUM	Child's Pose	Balasana	<ul> <li>Passively warms the shoulders and arms</li> <li>Neutralizes the spine</li> <li>Allows heart rate to slow</li> <li>Creates full body rest</li> </ul>

## Savasana/Final Relaxation:

Picture	<b>English Name</b>	Sanskrit Name	Benefits
	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

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#### Appendix B

Lesson Title: Yoga Sequence for Children with ASD: Focus on Language Stimulation Lesson: #2 of 9

Technical Level: Beginner

**Duration:** 20-40 minutes (depending on student's needs)

Adapted From: "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

## Main Objectives/Goals:

- Facilitate learning and language stimulation through the use of spoken word and physically demonstrating the yoga postures
- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

#### **Learning Outcomes:**

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition children will be able to identify and perform a pose based on a picture of the pose and/or the name of the pose. Children will learn that yoga pose names are in the Sanskrit language and will draw connections between the physical poses, animals associated with the pose, and possibly with the Sanskrit language. The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will feel more comfortable in social interactions with the teacher and the student will gain a sense of self-confidence through identifying their strengths and unique qualities.

### **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)
- Sticky yoga mats
- Blocks and straps
- Index cards of yoga poses with a picture of the pose on front side and the name of the pose on the back side (in English and possibly Sanskrit depending on the student)
- Lyrics to the Savasana Song
- Obtain relevant history from parents/caregivers

## **Lesson Guidelines:**

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you, but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. Namaste—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class** Debrief the child on what class is going to look like and ask them if they have any questions. For this particular lesson let the student know we will be working on language and introduce them to the index cards of yoga poses.
- 5. Breathing Exercises
  - a. Belly Breathing
  - b. Lion's Breath
- 6. Poses—For the physical practice of class use the index cards of yoga poses. Depending on the student you may select only a few poses to do with the index cards or you may go through the entirety of the sequence. First allow the student to look at the pose cards and the pose's name asking them questions such as "Does cat pose remind you of something a cat would do?" Allow them to look at the cards and then play the pose game. Show the student a picture of a pose, have them get into the pose, and then have the student name the pose. Another option is to show student the name of the pose and then have them get into the physical posture. Allow the game to be light-hearted and explore with the student any avenues by which he or she can remember the poses better. Option to change roles allowing the student to step into the role of the teacher. The student will need the yoga pose index cards and will show you a picture of a pose and you will have to name the pose or vice versa.

- a. Warm-Up Poses
  - i. Sitting Pose
  - ii. Cat
  - iii. Cow
  - iv. Mountain Pose
  - v. Spine Rolls
- b. Strengthening Poses
  - i. Chair Pose
  - ii. Triangle Pose
  - iii. Side Angle Pose
  - iv. Downward Facing Dog
- 7. "Yogis Says"— For this activity use the rules of "Simon Says" asking the child to do certain yoga poses. For example you might say, "Yogi says do tree pose!" Take turns being the teacher allowing each student to list 3-5 poses during their turn. If the student is having a hard time coming up with a pose, let them pick a pose out of the index cards of yoga poses. Encourage an awareness of detailed directions and an integration of language and physical movement. Give each student the chance to lead the group allowing them to build self-confidence and leadership skills.
- 8. Poses
  - a. Release of Tension Poses
    - i. Sphinx Pose
    - ii. Spread Leg Forward Bend pose
    - iii. Butterfly pose
    - iv. Seated Spinal Twist pose
    - v. Child's Pose
- **9.** The Savasana Song— This is a simple song that allows the child to integrate movement and language as the prepare for final relaxation. Read the following script and option to present the student with a sheet of the lyrics so they can sing along.

North Pole (Reach for the Sky) South Pole (Reach for your toes) East Coast (Bring one arm out to the side) West Coast (Bring other arm out to the side) Give yourself a hug (Hug Yourself) Cause now it's time to rest! (Gently roll onto your back into Savasana)

10. Savasana/ Final Relaxation—Allow child to lie still and relax and facilitate an environment to do so. The environment may change form day-to-day and child-to-child, so the teacher must be attuned to the student. Walk the student through a guided full body relaxation by having them focus on relaxing one muscle at a time. Take a full body scan starting at their head and working all the way down to their toes. Let the student know, "When we relax our muscles we want them to be nice and soft like spaghetti noodles." After the student has relaxed into their final relaxation you have the option to do the "noodle test" if the student feels comfortable. For the "noodle test" gently pick up their legs and arms and gently toss and sway them from side to side in the air like spaghetti noodles. Catch their

arms and legs on the way down and encourage the students to relax their body parts so they become more soft and "noodley." If their muscles are relaxed then you will be able to perform the noodle test with little resistance. If the student is having a hard time encourage them to relax saying, "Relax your arms completely" or "Pretend your legs are taking a nap." If at first it is hard for the student encourage them to keep trying and let them know that they will catch on!

11. Namaste/ Checking In—Students say "Namaste" at the end of each session and the teacher checks in with how the student is feeling physically, mentally, and emotionally.

#### **Benefits of Breathing Exercises:**

- a. Belly Breathing
  - i. Quiets the brain
  - ii. Slows the flow of the breath
- b. Lion's Breath
  - i. Relieves tension in the face and chest
  - ii. Helps keep the platysma, a flat rectangular shaped muscle at the front of the throat, firm
  - iii. Tradition texts state lion's breath destroys disease and helps initiate the three locks in the body, or bandhas.

## Warm-Up Poses:

Picture	English Name	Sanskrit Name	Benefits
The second secon	Sitting Pose	Sukasana	<ul> <li>Calms the brain</li> <li>Strengthens the back</li> <li>Stretches the ankles and feet</li> </ul>
	Cat	Marjaryasana	<ul> <li>Stretches the backside of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>

SUSEN 2	Cow	Bitilasana	<ul> <li>Stretches the front side of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
DAVD MATTREE2	Mountain	Tadasana	<ul> <li>Decompresses vertebral column</li> <li>Ignites the nervous system</li> <li>Strengthens the shoulders</li> <li>Opens the chest</li> </ul>
	Forward Fold	Uttanasana	<ul> <li>Creates a gradual yet deep spinal release</li> <li>Opens the backside of the body</li> <li>Oxygenates the central nervous system, the brain and spinal cord</li> <li>Soothes and revitalizes the central nervous system for calming effects</li> <li>Stimulates and rinses abdominal organs</li> </ul>

# Strengthening Poses:

Picture	English Name	Sanskrit Name	Benefits
	Chair	Utkatasana	<ul> <li>Strengthens the back, quadriceps, and hips</li> <li>Increases heart rate and subsequently increases circulation throughout the body</li> <li>Stimulates metabolism</li> </ul>
	Triangle	Trikonasana	<ul> <li>Opens the sternum, ribcage, and cardiovascular system</li> <li>Creates space throughout upper back and long muscles of the spine</li> <li>Stretches the sides of the body</li> </ul>
PERVEL-FORSUM	Extended Side Angle Pose	Utthita Parsvokonasana	Increases Balance and Coordination Strengths and stretches the legs, knees, and ankles Stretches the groin, spine, waist, chest, lungs, and shoulders Stimulates abdominal organs Increases stamina and concentration
A SALES	Downward Facing Dog	Adho Mukha Svanasana	<ul> <li>Decompresses the spinal column</li> <li>Strengthens the shoulders and arms</li> <li>Opens the shoulder girdle and trapezius</li> <li>Creates an inversion in the body (where the head is below the heart) allowing fresh oxygen to come to the central nervous system</li> </ul>

## **Release of Tension Poses:**

Picture	English Name	Sanskrit Name	Benefits
	Sphinx	Sphinx	<ul> <li>Strengthens the spine</li> <li>Stretches the chest and lungs</li> <li>Helps relieve stress</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> </ul>
RORY EARNSHAW	Spread Leg Forward Bend Pose	Upavistha Konasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
UARTY SCONDUTO	Butterfly Pose	Konasana	<ul> <li>Opens hip flexors</li> <li>Releases the periformis muscle</li> </ul>

OPENALES	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>
DOCT EARLISHAW	Child's Pose	Balasana	<ul> <li>Passively warms the shoulders and arms</li> <li>Neutralizes the spine</li> <li>Allows heart rate to slow</li> <li>Creates full body rest</li> </ul>

# Savasana/Final Relaxation:

Picture	English Name	Sanskrit Name	Benefits
	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

## References

Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your power. (2013)

- Betts, D. E. & Betts, S.W. Yoga for Children with Autism Spectrum Disorder: A step-bystep guide for parents and caregivers
- Pose Finder: The Yogi's A-Z Guide to Practicing Asana Yoga Journal. (n.d.). Retrieved from http://www.yogajournal.com/pose-finder/

## Appendix C

Lesson Title: Yoga Sequence for Children with ASD: Focus on Language Stimulation Lesson: #3 of 9

Technical Level: Beginner

**Duration:** 20-40 minutes (depending on student's needs)

*Adapted From:* "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

#### Main Objectives/Goals:

- Facilitate learning and language stimulation through the use of spoken word and physically demonstrating the yoga postures
- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

#### Learning Outcomes:

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition children will be able to identify and perform a pose based on a picture of the pose and/or the name of the pose. Children will learn that yoga pose names are in the Sanskrit language and will draw connections between the physical poses, animals associated with the pose, and possibly with the Sanskrit language. The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will gain a sense of self-confidence through identifying their strengths and unique qualities.

## **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)
- Sticky yoga mats
- Blocks and straps
- Index cards of yoga poses with a picture of the pose on front side and the name of the pose on the back side (in English and possibly Sanskrit depending on the student)
- Obtain relevant history from parents/caregivers

### **Lesson Guidelines:**

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. **Namaste**—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class--** Debrief the child on what class is going to look like and ask them if they have any questions. For this particular lesson let the student know we will be working on language and introduce them to the index cards of yoga poses.
- 5. Breathing Exercises
  - a. Belly Breathing
  - b. Lion's Breath
  - c. Horse Breath
- 6. Back Writing Mediation—If student is okay with partner work and touch have the student sit in front of you and tell him or her, "I'm going to write/draw something on your back, is that okay?" Sit behind the student and using your index finger write words and have the student guess the words. Take turns writing and "listening" allowing for the experience of positive touch and language stimulation.
- 7. Poses—For the physical practice of class use the index cards of yoga poses. Depending on the student you may select only a few poses to do with the index cards or you may go through the entirety of the sequence. First allow the student to look at the pose cards and the pose's name asking them questions such as "Does cat pose remind you of something a cat would do?" Allow them to look at the cards and then play the pose game. Show the student a picture of a pose, have them get into the pose, and then have the student name the pose. Another option is

to show student the name of the pose and then have them get into the physical posture. Allow the game to be light-hearted and explore with the student any avenues by which he or she can remember the poses better. Option to change roles allowing the student to step into the role of the teacher. The student will need the yoga pose index cards and will show you a picture of a pose and you will have to name the pose or vice versa.

- a. Warm-Up Poses
  - i. Sitting Pose
  - ii. Cat
  - iii. Cow
  - iv. Mountain Pose
  - v. Spine Rolls
- b. Strengthening Poses
  - i. Warrior 1
  - ii. Warrior 2
  - iii. Pasarita/ Standing Forward Bend
  - iv. Tree
- 8. "Yogis Says"— For this activity use the rules of "Simon Says" asking the child to do certain yoga poses. For example you might say, "Yogi says do tree pose!" Take turns being the teacher allowing each student to list 3-5 poses during their turn. If the student is having a hard time coming up with a pose, let them pick a pose out of the index cards of yoga poses. Encourage an awareness of detailed directions and an integration of language and physical movement. Give each student the chance to lead the group allowing them to build self-confidence and leadership skills.
- 9. Poses
  - a. Release of Tension Poses
    - i. Cobra Pose
    - ii. Bridge Pose
    - iii. Seated Forward Bend pose
    - iv. Seated Spinal Twist pose
    - v. Child's Pose
- 10. Savasana/ Final Relaxation—Allow child to lie still and relax and facilitate an environment to do so. The environment may change form day-to-day and child-to-child, so the teacher must be attuned to the student. Walk the student through a guided full body relaxation by having them focus on relaxing one muscle at a time. Take a full body scan starting at their head and working all the way down to their toes. Let the student know, "When we relax our muscles we want them to be nice and soft like spaghetti noodles." After the student has relaxed into their final relaxation you have the option to do the "noodle test" if the student feels comfortable. For the "noodle test" gently pick up their legs and arms and gently toss and sway them from side to side in the air like spaghetti noodles. Catch their arms and legs on the way down and encourage the students to relax their body parts so they become more soft and "noodley." If their muscles are relaxed then you will be able to perform the noodle test with little resistance. If the student is having a hard time encourage them to relax saying, "Relax your arms completely"

59

or "Pretend your legs are taking a nap." If at first it is hard for the student encourage them to keep trying and let them know that they will catch on!

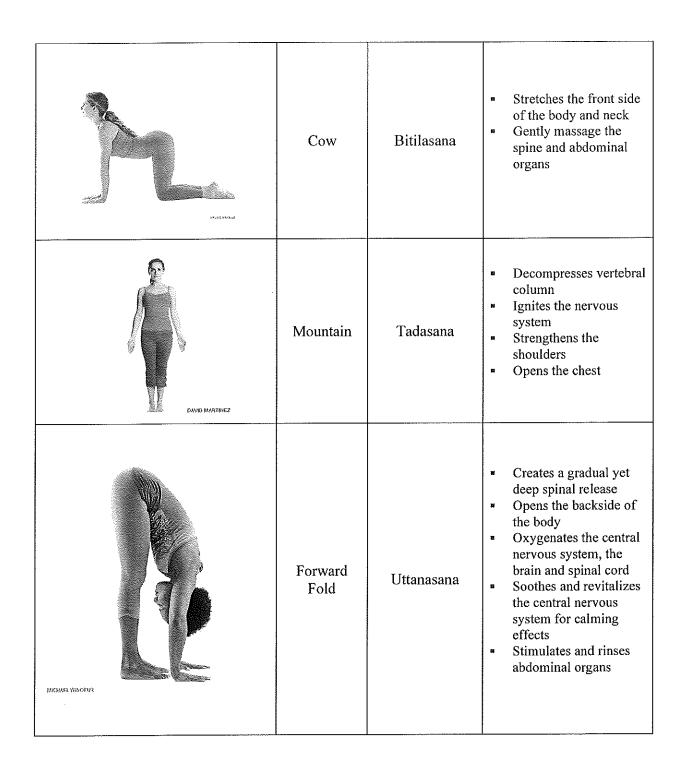
11. Namaste/ Checking In—Students say "Namaste" at the end of each session and the teacher checks in with how the student is feeling physically, mentally, and emotionally.

## **Benefits of Breathing Exercises:**

- a. Belly Breathing
  - i. Quiets the brain
  - ii. Slows the flow of the breath
- b. Lion's Breath
  - i. Relieves tension in the face and chest
  - ii. Helps keep the platysma, a flat rectangular shaped muscle at the front of the throat, firm
  - iii. Tradition texts state lion's breath destroys disease and helps initiate the three locks in the body, or bandhas.
- c. Horse Breath
  - i. Relieves tension in the face and chest
  - ii. Allow the breath to slow and heart rate to calm

## Warm-Up Poses:

Picture	English Name	Sanskrit Name	Benefits
	Sitting Pose	Sukasana	<ul> <li>Calms the brain</li> <li>Strengthens the back</li> <li>Stretches the ankles and feet</li> </ul>
	Cat	Marjaryasana	<ul> <li>Stretches the backside of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>



# **Strengthening Poses:**

Picture	<b>English Name</b>	Sanskrit Name	Benefits
	Warrior 1	Virabhadrasana I	<ul> <li>Cultivates focus, awareness, and power</li> <li>Increases flexibility of the hips and torso</li> <li>Strengthens quadriceps</li> </ul>
CIRES ANORE	Warrior 2	Virabhadrasana II	<ul> <li>Both strengthens and stretches the legs and ankles</li> <li>Stretches the groin, chest, lungs, and shoulders</li> <li>Stimulates the abdominal organs</li> <li>Increases stamina and focus</li> </ul>
A CTI F ARRESTAN	Wide-Legged Forward Bend	Pasarita Padottanasana	<ul> <li>Strengthen and lengthens the calves and hamstrings</li> <li>Tones internal organs including the liver, pancreas, spleen, kidneys, gallbladder, and other digestive organs</li> <li>Sends fresh oxygen to the central nervous system</li> <li>Calms and soothes the entire nervous system</li> </ul>

	Tree	Vrksasana	<ul> <li>Improves balance and posture</li> <li>Increases flexibility of the ankles, knee, and hip joints</li> <li>Cultivates focus</li> </ul>
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# **Release of Tension Poses:**

Picture	English Name	Sanskrit Name	Benefits
	Cobra	Bhujangasana	<ul> <li>Strengthens the spine</li> <li>Stretches the chest, lungs, shoulders, and abdomen</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> <li>Opens the heart and lungs</li> </ul>
	Bridge	Setu Bandha Sarvangasana	<ul> <li>Opens chest and increases lung capacity</li> <li>Lengthens the abdominal wall</li> <li>Tones gluteus and thighs</li> <li>Stabilizes and releases the lower back</li> </ul>

MARTIN SCONDUTO	Seated Forward Bend Pose	Paschimottanasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
OIM ALCRE	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>
Ecry EARSHAW	Child's Pose	Balasana	<ul> <li>Passively warms the shoulders and arms</li> <li>Neutralizes the spine</li> <li>Allows heart rate to slow</li> <li>Creates full body rest</li> </ul>

## Savasana/Final Relaxation:

Picture	<b>English Name</b>	Sanskrit Name	Benefits
A TITUM	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

## References

Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your

power. (2013)

Betts, D. E. & Betts, S.W. Yoga for Children with Autism Spectrum Disorder: A step-bystep guide for parents and caregivers

Pose Finder: The Yogi's A-Z Guide to Practicing Asana - Yoga Journal. (n.d.). Retrieved from http://www.yogajournal.com/pose-finder/

## Appendix D

Lesson Title: Yoga Sequence for Children with ASD: Focus on Physicality Lesson: #4 of 9 Technical Level: Beginner Duration: 20-40 minutes (depending on student's needs)

Adapted From: "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

#### Main Objectives/Goals:

- Allow the student to engage in physical strength building in a fun and creative environment without judgment
- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

#### **Learning Outcomes:**

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will feel more comfortable in social interactions with the teacher and the student will gain a sense of self-confidence through identifying their strengths and unique qualities.

## **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)
- Sticky yoga mats

- Blocks and straps
- Pictures of the various poses
- Obtain relevant history from parents/caregivers

## Lesson Guidelines:

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. Namaste—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class--** Debrief the child on what class is going to look like and ask them if they have any questions.
- 5. Breathing Exercises
  - a. Belly Breathing
  - b. Lion's Breath
  - c. Horse Breath
- 6. Self-Massage/ "Magic Massage"— Start the session with a simple self-massage activity to relive stress and give student the tools for self-calming and positive self-touch. Verbally instruct the child through the activity and participate with the child in order to model the activity to the child and make him or her feel more comfortable. When the child feels ready tell him or her to find a comfortable seated position and close his or her eyes. "We are going to start giving ourselves a 'magic massage' first at our head. Using your fingers draw little circles on your head and you might find a place where you feel there is tension and you may want to stay there longer." Slowly have the child continue the self-massage to his or her neck, shoulders, hands, and feet encouraging the student to be mindful of where they fell tension in their body.

#### 7. Poses

- a. Warm-Up Poses
  - i. Sitting Pose
  - ii. Cat
  - iii. Cow
  - iv. Mountain Pose
  - v. Spine Rolls
- b. Strengthening Poses
  - i. Chair Pose
  - ii. Triangle Pose

MCHAEL WF.GEUX	Forward Fold	Uttanasana	<ul> <li>Creates a gradual yet deep spinal release</li> <li>Opens the backside of the body</li> <li>Oxygenates the central nervous system, the brain and spinal cord</li> <li>Soothes and revitalizes the central nervous system for calming effects</li> <li>Stimulates and rinses abdominal organs</li> </ul>
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# Strengthening Poses:

Picture	English Name	Sanskrit Name	Benefits
	Chair	Utkatasana	<ul> <li>Strengthens the back, quadriceps, and hips</li> <li>Increases heart rate and subsequently increases circulation throughout the body</li> <li>Stimulates metabolism</li> </ul>
	Triangle	Trikonasana	<ul> <li>Opens the sternum, ribcage, and cardiovascular system</li> <li>Creates space throughout upper back and long muscles of the spine</li> <li>Stretches the sides of the body</li> </ul>

A REAL PROPERTY A	Downward Facing Dog	Adho Mukha Svanasana	<ul> <li>Decompresses the spinal column</li> <li>Strengthens the shoulders and arms</li> <li>Opens the shoulder girdle and trapezius</li> <li>Creates an inversion in the body (where the head is below the heart) allowing fresh oxygen to come to the central nervous system</li> </ul>
Ctyle Aldre	Warrior 2	Virabhadrasana II	<ul> <li>Both strengthens and stretches the legs and ankles</li> <li>Stretches the groin, chest, lungs, and shoulders</li> <li>Stimulates the abdominal organs</li> <li>Increases stamina and focus</li> </ul>
PCRY EARNING AW	Wide-Legged Forward Bend	Pasarita Padottanasana	<ul> <li>Strengthen and lengthens the calves and hamstrings</li> <li>Tones internal organs including the liver, pancreas, spleen, kidneys, gallbladder, and other digestive organs</li> <li>Sends fresh oxygen to the central nervous system</li> <li>Calms and soothes the entire nervous system</li> </ul>

	Tree	Vrksasana	<ul> <li>Improves balance and posture</li> <li>Increases flexibility of the ankles, knee, and hip joints</li> <li>Cultivates focus</li> </ul>
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# **Release of Tension Poses:**

Picture	English Name	Sanskrit Name	Benefits
MARTIN SOMDUTO	Sphinx	Sphinx	<ul> <li>Strengthens the spine</li> <li>Stretches the chest and lungs</li> <li>Helps relieve stress</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> </ul>
	Cobra	Bhujangasana	<ul> <li>Strengthens the spine</li> <li>Stretches the chest, lungs, shoulders, and abdomen</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> <li>Opens the heart and lungs</li> </ul>

	Bridge	Setu Bandha Sarvangasana	<ul> <li>Opens chest and increases lung capacity</li> <li>Lengthens the abdominal wall</li> <li>Tones gluteus and thighs</li> <li>Stabilizes and releases the lower back</li> </ul>
MARTIN SCONDUTO	Seated Forward Bend Pose	Paschimottanasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
RORY EARNSHAW	Spread Leg Forward Bend Pose	Upavistha Konasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
VARTY SCORDUTO	Butterfly Pose	Konasana	<ul> <li>Opens hip flexors</li> <li>Releases the periformis muscle</li> </ul>

Gest MEME	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>
A CONTRACTOR OF THE OWNER OWNE	Child's Pose	Balasana	<ul> <li>Passively warms the shoulders and arms</li> <li>Neutralizes the spine</li> <li>Allows heart rate to slow</li> <li>Creates full body rest</li> </ul>

## Savasana/Final Relaxation:

Picture	English Name	Sanskrit Name	Benefits
	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

## References

Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your power. (2013)

- Betts, D. E. & Betts, S.W. Yoga for Children with Autism Spectrum Disorder: A step-bystep guide for parents and caregivers
- Pose Finder: The Yogi's A-Z Guide to Practicing Asana Yoga Journal. (n.d.). Retrieved from http://www.yogajournal.com/pose-finder/

## Appendix E

Lesson Title: Yoga Sequence for Children with ASD: Focus on Self-Calming Lesson: #5 of 9 Technical Level: Beginner Duration: 20-40 minutes (depending on student's needs)

Adapted From: "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

## Main Objectives/Goals:

- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

### **Learning Outcomes:**

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will feel more comfortable in social interactions with the teacher and the student will gain a sense of self-confidence through identifying their strengths and unique qualities.

## **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)
- Sticky yoga mats
- Blocks and straps
- Pictures of the various poses

- Lyrics to the Savasana Song
- Obtain relevant history from parents/caregivers

## Lesson Guidelines:

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. Namaste—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class--** Debrief the child on what class is going to look like and ask them if they have any questions.
- 5. Self-Massage/ "Magic Massage"— Start the session with a simple self-massage activity to relive stress and give student the tools for self-calming and positive self-touch. Verbally instruct the child through the activity and participate with the child in order to model the activity to the child and make him or her feel more comfortable. When the child feels ready tell him or her to find a comfortable seated position and close his or her eyes. "We are going to start giving ourselves a 'magic massage' first at our head. Using your fingers draw little circles on your head and you might find a place where you feel there is tension and you may want to stay there longer." Slowly have the child continue the self-massage to his or her neck, shoulders, hands, and feet encouraging the student to be mindful of where they fell tension in their body.

## 6. Breathing Exercises

- a. Belly Breathing
- b. Lion's Breath
- c. Horse Breath
- 7. Belly Breathing— For this lesson focus extra attention of the belly breathing exercises. Have the student sit in a comfortable seated position and put both of their hands on their belly. Say, "Now we are going to take a deep inhale and slowly fill our belly up like a balloon. Notice how your belly inflates. Now exhale and slowly let all of the air out of your balloon as your hands fall back to their original starting position."

## 8. Poses

- a. Warm-Up Poses
  - i. Sitting Pose
  - ii. Cat
  - iii. Cow

- iv. Mountain Pose
- v. Spine Rolls
- b. Strengthening Poses
  - i. Chair Pose
  - ii. Triangle Pose
  - iii. Side Angle Pose
  - iv. Downward Facing Dog
- c. Release of Tension Poses
  - i. Sphinx Pose
  - ii. Cobra Pose
  - iii. Bridge Pose
  - iv. Seated Forward Bend pose
  - v. Spread Leg Forward Bend pose
  - vi. Butterfly pose
  - vii. Seated Spinal Twist pose
  - viii. Child's Pose
- **9.** The Savasana Song— This is a simple song that allows the child to integrate movement and language as the prepare for final relaxation. Read the following script and option to present the student with a sheet of the lyrics so they can sing along.

North Pole (Reach for the Sky) South Pole (Reach for your toes) East Coast (Bring one arm out to the side) West Coast (Bring other arm out to the side) Give yourself a hug (Hug Yourself) Cause now it's time to rest! (Gently roll onto your back into Savasana)

- 10. Savasana/ Final Relaxation-Allow child to lie still and relax and facilitate an environment to do so. The environment may change form day-to-day and childto-child, so the teacher must be attuned to the student. Walk the student through a guided full body relaxation by having them focus on relaxing one muscle at a time. Take a full body scan starting at their head and working all the way down to their toes. Let the student know, "When we relax our muscles we want them to be nice and soft like spaghetti noodles." After the student has relaxed into their final relaxation you have the option to do the "noodle test" if the student feels comfortable. For the "noodle test" gently pick up their legs and arms and gently toss and sway them from side to side in the air like spaghetti noodles. Catch their arms and legs on the way down and encourage the students to relax their body parts so they become more soft and "noodley." If their muscles are relaxed then you will be able to perform the noodle test with little resistance. If the student is having a hard time encourage them to relax saying, "Relax your arms completely" or "Pretend your legs are taking a nap." If at first it is hard for the student encourage them to keep trying and let them know that they will catch on!
- 11. Namaste/ Checking In—Students say "Namaste" at the end of each session and the teacher checks in with how the student is feeling physically, mentally, and emotionally.

# **Benefits of Breathing Exercises:**

- a. Belly Breathing
  - i. Quiets the brain
  - ii. Slows the flow of the breath
- b. Lion's Breath
  - i. Relieves tension in the face and chest
  - ii. Helps keep the platysma, a flat rectangular shaped muscle at the front of the throat, firm
  - iii. Tradition texts state lion's breath destroys disease and helps initiate the three locks in the body, or bandhas.
- c. Horse Breath
  - i. Relieves tension in the face and chest
  - ii. Allow the breath to slow and heart rate to calm

Warm-Up Poses:

Picture	English Name	Sanskrit Name	Benefits
	Sitting Pose	Sukasana	<ul> <li>Calms the brain</li> <li>Strengthens the back</li> <li>Stretches the ankles and feet</li> </ul>
	Cat	Marjaryasana	<ul> <li>Stretches the backside of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>

New York Contraction of the second se	Cow	Bitilasana	<ul> <li>Stretches the front side of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
DAVD MASTER#2	Mountain	Tadasana	<ul> <li>Decompresses vertebral column</li> <li>Ignites the nervous system</li> <li>Strengthens the shoulders</li> <li>Opens the chest</li> </ul>
NCHAR HIRORY	Forward Fold	Uttanasana	<ul> <li>Creates a gradual yet deep spinal release</li> <li>Opens the backside of the body</li> <li>Oxygenates the central nervous system, the brain and spinal cord</li> <li>Soothes and revitalizes the central nervous system for calming effects</li> <li>Stimulates and rinses abdominal organs</li> </ul>

# Strengthening Poses:

Picture	English Name	Sanskrit Name	Benefits
	Chair	Utkatasana	<ul> <li>Strengthens the back, quadriceps, and hips</li> <li>Increases heart rate and subsequently increases circulation throughout the body</li> <li>Stimulates metabolism</li> </ul>
	Triangle	Trikonasana	<ul> <li>Opens the sternum, ribcage, and cardiovascular system</li> <li>Creates space throughout upper back and long muscles of the spine</li> <li>Stretches the sides of the body</li> </ul>
Балуеловыци	Extended Side Angle Pose	Utthita Parsvokonasana	Increases Balance and Coordination Strengths and stretches the legs, knees, and ankles Stretches the groin, spine, waist, chest, lungs, and shoulders Stimulates abdominal organs Increases stamina and concentration
Point Carrier	Downward Facing Dog	Adho Mukha Svanasana	<ul> <li>Decompresses the spinal column</li> <li>Strengthens the shoulders and arms</li> <li>Opens the shoulder girdle and trapezius</li> <li>Creates an inversion in the body (where the head is below the heart) allowing fresh oxygen to come to the central nervous system</li> </ul>

## **Release of Tension Poses:**

Picture	English Name	Sanskrit Name	Benefits
млятін вссирито	Sphinx	Sphinx	<ul> <li>Strengthens the spine</li> <li>Stretches the chest and lungs</li> <li>Helps relieve stress</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> </ul>
AMITIN BCCAED/TG	Cobra	Bhujangasana	<ul> <li>Strengthens the spine</li> <li>Stretches the chest, lungs, shoulders, and abdomen</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> <li>Opens the heart and lungs</li> </ul>
	Bridge	Setu Bandha Sarvangasana	<ul> <li>Opens chest and increases lung capacity</li> <li>Lengthens the abdominal wall</li> <li>Tones gluteus and thighs</li> <li>Stabilizes and releases the lower back</li> </ul>

MARTIN SCONDUTO	Seated Forward Bend Pose	Paschimottanasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
RORY EARNSHAW	Spread Leg Forward Bend Pose	Upavistha Konasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
MARY SCORDUTO	Butterfly Pose	Konasana	<ul> <li>Opens hip flexors</li> <li>Releases the periformis muscle</li> </ul>
Greg Airee	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>

#### Savasana/Final Relaxation:

Picture	<b>English Name</b>	Sanskrit Name	Benefits
	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

## References

Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your

power. (2013)

Betts, D. E. & Betts, S.W. Yoga for Children with Autism Spectrum Disorder: A step-bystep guide for parents and caregivers

Pose Finder: The Yogi's A-Z Guide to Practicing Asana - Yoga Journal. (n.d.). Retrieved from http://www.yogajournal.com/pose-finder/

## Appendix F

Lesson Title: Yoga Sequence for Children with ASD: Focus on Social Interactions Lesson: #6 of 9 Technical Level: Beginner Duration: 20-40 minutes (depending on student's needs)

*Adapted From:* "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

#### Main Objectives/Goals:

- Students will participate in partnering exercises and will become more comfortable with social interactions through touch learning how to receive sensory feedback from another person
- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

## **Learning Outcomes:**

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will feel more comfortable in social interactions with the teacher and the student will gain a sense of self-confidence through identifying their strengths and unique qualities.

### **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)

- Sticky yoga mats
- Blocks and straps
- Pictures of the various poses
- Obtain relevant history from parents/caregivers

## **Lesson Guidelines:**

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. **Namaste**—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class--** Debrief the child on what class is going to look like and ask them if they have any questions.

## 5. Breathing Exercises

- a. Lion's Breath
- b. Horse Breath
- 6. Poses
  - a. Warm-Up Poses
    - i. Sitting Pose
    - ii. Cat
    - iii. Cow
    - iv. Mountain Pose
    - v. Spine Rolls
- 7. Back Writing Mediation—If student is okay with partner work and touch have the student sit in front of you and tell her "I'm going to write/draw something on your back, is that okay?" Sit behind the student and using your index finger write words and have the student guess the words. Take turns writing and "listening" allowing for the experience of positive touch and language stimulation.
- 8. Teacher— Give the students the option to become the teacher. Let the student know that they can teach how to do one of their favorite poses or any activities we have done before. If the student is looking for guidance hand them the yoga pose index cards and have them chose one of the poses from the deck of cards to teach to everyone. This serves as a good opportunity for the student to integrate language and physical movement along with social interaction. Be encouraging of the student when they are stepping into the role of teacher and encourage creativity and spontaneity.
- 9. Poses-

- a. Strengthening Poses
  - i. Chair Pose
  - ii. Triangle Pose
  - iii. Side Angle Pose
  - iv. Downward Facing Dog
- 10. Partner Tree Pose— You will need partners of two for this activity either two students or a student and the teacher. Tell them that we are going to do partner tree pose. "Stand side by side to your partner and bring your leg on the outside into tree pose. Ground down through your tree roots to find our stability so that you can support your partner. Both partner bring their outside hand to connect with their partners hands as if their hands were at heart center. The more you ground down through your feet the more you will be able to help your other tree. Trees grow in forests and the trees help support one another."

### 11. Poses-

- a. Release of Tension Poses
  - i. Sphinx Pose
  - ii. Cobra Pose
  - iii. Bridge Pose
  - iv. Seated Forward Bend pose
  - v. Spread Leg Forward Bend pose
  - vi. Butterfly pose
  - vii. Seated Spinal Twist pose
  - viii. Child's Pose
- 12. Savasana/ Final Relaxation-Allow child to lie still and relax and facilitate an environment to do so. The environment may change form day-to-day and childto-child, so the teacher must be attuned to the student. Walk the student through a guided full body relaxation by having them focus on relaxing one muscle at a time. Take a full body scan starting at their head and working all the way down to their toes. Let the student know, "When we relax our muscles we want them to be nice and soft like spaghetti noodles." After the student has relaxed into their final relaxation you have the option to do the "noodle test" if the student feels comfortable. For the "noodle test" gently pick up their legs and arms and gently toss and sway them from side to side in the air like spaghetti noodles. Catch their arms and legs on the way down and encourage the students to relax their body parts so they become more soft and "noodley." If their muscles are relaxed then you will be able to perform the noodle test with little resistance. If the student is having a hard time encourage them to relax saying, "Relax your arms completely" or "Pretend your legs are taking a nap." If at first it is hard for the student encourage them to keep trying and let them know that they will catch on!
- 13. Namaste/ Checking In—Students say "Namaste" at the end of each session and the teacher checks in with how the student is feeling physically, mentally, and emotionally.

## **Benefits of Breathing Exercises:**

- a. Lion's Breath
  - i. Relieves tension in the face and chest

- ii. Helps keep the platysma, a flat rectangular shaped muscle at the front of the throat, firm
- iii. Tradition texts state lion's breath destroys disease and helps initiate the three locks in the body, or bandhas.
- b. Horse Breath
  - i. Relieves tension in the face and chest
  - ii. Allow the breath to slow and heart rate to calm

# Warm-Up Poses:

Picture	English Name	Sanskrit Name	Benefits
	Sitting Pose	Sukasana	<ul> <li>Calms the brain</li> <li>Strengthens the back</li> <li>Stretches the ankles and feet</li> </ul>
A REAL	Cat	Marjaryasana	<ul> <li>Stretches the backside of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
Normal States	Cow	Bitilasana	<ul> <li>Stretches the front side of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>

· · · · · · · · · · · · · · · · · · ·	Mountain	Tadasana	<ul> <li>Decompresses vertebral column</li> <li>Ignites the nervous system</li> <li>Strengthens the shoulders</li> <li>Opens the chest</li> </ul>
	Forward Fold	Uttanasana	<ul> <li>Creates a gradual yet deep spinal release</li> <li>Opens the backside of the body</li> <li>Oxygenates the central nervous system, the brain and spinal cord</li> <li>Soothes and revitalizes the central nervous system for calming effects</li> <li>Stimulates and rinses abdominal organs</li> </ul>

# Strengthening Poses:

Picture	English Name	Sanskrit Name	Benefits
	Chair	Utkatasana	<ul> <li>Strengthens the back, quadriceps, and hips</li> <li>Increases heart rate and subsequently increases circulation throughout the body</li> <li>Stimulates metabolism</li> </ul>

A DE	Triangle	Trikonasana	<ul> <li>Opens the sternum, ribcage, and cardiovascular system</li> <li>Creates space throughout upper back and long muscles of the spine</li> <li>Stretches the sides of the body</li> </ul>
DERY EARSHAM	Extended Side Angle Pose	Utthita Parsvokonasana	Increases Balance and Coordination Strengths and stretches the legs, knees, and ankles Stretches the groin, spine, waist, chest, lungs, and shoulders Stimulates abdominal organs Increases stamina and concentration
CAROLINES	Downward Facing Dog	Adho Mukha Svanasana	<ul> <li>Decompresses the spinal column</li> <li>Strengthens the shoulders and arms</li> <li>Opens the shoulder girdle and trapezius</li> <li>Creates an inversion in the body (where the head is below the heart) allowing fresh oxygen to come to the central nervous system</li> </ul>
	Tree	Vrksasana	<ul> <li>Improves balance and posture</li> <li>Increases flexibility of the ankles, knee, and hip joints</li> <li>Cultivates focus</li> </ul>

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## **Release of Tension Poses:**

Picture	English Name	Sanskrit Name	Benefits
ЛАЧТИ В ССМЕФТО	Sphinx	Sphinx	<ul> <li>Strengthens the spine</li> <li>Stretches the chest and lungs</li> <li>Helps relieve stress</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> </ul>
	Cobra	Bhujangasana	<ul> <li>Strengthens the spine</li> <li>Stretches the chest, lungs, shoulders, and abdomen</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> <li>Opens the heart and lungs</li> </ul>
	Bridge	Setu Bandha Sarvangasana	<ul> <li>Opens chest and increases lung capacity</li> <li>Lengthens the abdominal wall</li> <li>Tones gluteus and thighs</li> <li>Stabilizes and releases the lower back</li> </ul>

MARTIN SCONDUTO	Seated Forward Bend Pose	Paschimottanasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
RORY EARNISHAW	Spread Leg Forward Bend Pose	Upavistha Konasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
MARIY ECONOUTO	Butterfly Pose	Konasana	<ul> <li>Opens hip flexors</li> <li>Releases the periformis muscle</li> </ul>
Orde ALEVE	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>

BORY EARISHAM	Child's Pose	Balasana	<ul> <li>Passively warms the shoulders and arms</li> <li>Neutralizes the spine</li> <li>Allows heart rate to slow</li> <li>Creates full body rest</li> </ul>
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#### Savasana/Final Relaxation:

Picture	<b>English Name</b>	Sanskrit Name	Benefits
	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

### References

Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your

power. (2013)

Betts, D. E. & Betts, S.W. Yoga for Children with Autism Spectrum Disorder: A step-bystep guide for parents and caregivers

Pose Finder: The Yogi's A-Z Guide to Practicing Asana - Yoga Journal. (n.d.). Retrieved from http://www.yogajournal.com/pose-finder/

#### Appendix G

Lesson Title: Yoga Sequence for Children with ASD: Focus on Self-Calming Lesson: #8 of 9 Technical Level: Beginner Duration: 20-40 minutes (depending on student's needs)

*Adapted From:* "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

#### Main Objectives/Goals:

- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

#### Learning Outcomes:

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will feel more comfortable in social interactions with the teacher and the student will gain a sense of self-confidence through identifying their strengths and unique qualities.

## **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)
- Sticky yoga mats
- Blocks and straps
- Pictures of the various poses

- Small stuffed animals (beanie babies work well)
- Blowing bubbles and wand
- Obtain relevant history from parents/caregivers

## **Lesson Guidelines:**

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. Namaste—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class** Debrief the child on what class is going to look like and ask them if they have any questions.
- 5. Breathing Exercises
  - a. Ujayi
  - b. Belly Breathing
  - c. Lion's Breath
  - d. Horse Breath
- 6. Blowing Bubbles Breathwork— Hand the student the bubbles and a wand and tell him or her that we are going to do a breathing exercise using the bubbles. "First take a slow deep breath in through your nose and then gentle blow the air out of your mouth and into the wand making a bubble. Notice that you have to breath nice and slow for the bubbles to form." Then instruct the student through how to blow a bigger bubble saying, "Breath in deep through your nose filling your belly up like a balloon and then gently and slowly blow all of your air out into the bubble wand and make a large bubble. Notice that the deeper and slower you breath, the bigger the bubble you can make"
- 7. Poses
  - a. Warm-Up Poses
    - i. Sitting Pose
    - ii. Cat
    - iii. Cow
    - iv. Mountain Pose
    - v. Spine Rolls
  - b. Strengthening Poses
    - i. Downward Facing Dog
    - ii. Warrior 1
    - iii. Warrior 2

- iv. Pasarita/ Standing Forward Bend
- v. Tree
- c. Release of Tension Poses
  - i. Sphinx Pose
  - ii. Cobra Pose
  - iii. Bridge Pose
  - iv. Seated Forward Bend pose
  - v. Spread Leg Forward Bend pose
  - vi. Butterfly pose
  - vii. Seated Spinal Twist pose
  - viii. Child's Pose
- 8. Rest with Breathing Buddies/Savasana— Depending on the students tolerance for sensory stimulation and touch allow the child to chose a "breathing buddy" to take to final Savasana. Stuffed animal Beanie Babies work well as "breathing buddies." Have the student chose a stuffed animal and lie on their back for Savasana putting their "breathing buddy" on their stomach. The stuffed animal on the student's stomach will bring his or her attention to their breath and the tactile feedback of the stuffed animal on their stomach can be calming. Have the student bring awareness to their breath and feel the breathing buddy moving up and down on their belly as they breath in and out.
- 9. Noodle Test— Walk the student through a guided full body relaxation by having them focus on relaxing one muscle at a time. Take a full body scan starting at their head and working all the way down to their toes. Let the student know, "When we relax our muscles we want them to be nice and soft like spaghetti noodles." After the student has relaxed into their final relaxation you have the option to do the "noodle test" if the student feels comfortable. For the "noodle test" gently pick up their legs and arms and gently toss and sway them from side to side in the air like spaghetti noodles. Catch their arms and legs on the way down and encourage the students to relax their body parts so they become more soft and "noodley." If their muscles are relaxed then you will be able to perform the noodle test with little resistance. If the student is having a hard time encourage them to relax saying, "Relax your arms completely" or "Pretend your legs are taking a nap." If at first it is hard for the student encourage them to keep trying and let them know that they will catch on!
- 10. Namaste/ Checking In—Students say "Namaste" at the end of each session and the teacher checks in with how the student is feeling physically, mentally, and emotionally.

#### **Benefits of Breathing Exercises:**

- a. Ujayi Breathing
  - i. Quiets the brain
  - ii. Slows the flow of the breath
  - iii. Creates internal heal
- b. Belly Breathing
  - i. Quiets the brain
  - ii. Slows the flow of the breath

- c. Lion's Breath
  - i. Relieves tension in the face and chest
  - ii. Helps keep the platysma, a flat rectangular shaped muscle at the front of the throat, firm
  - iii. Tradition texts state lion's breath destroys disease and helps initiate the three locks in the body, or bandhas.
- d. Horse Breath
  - i. Relieves tension in the face and chest
  - ii. Allow the breath to slow and heart rate to calm

## Warm-Up Poses:

Picture	English Name	Sanskrit Name	Benefits
	Sitting Pose	Sukasana	<ul> <li>Calms the brain</li> <li>Strengthens the back</li> <li>Stretches the ankles and feet</li> </ul>
	Cat	Marjaryasana	<ul> <li>Stretches the backside of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
A reference of the second seco	Cow	Bitilasana	<ul> <li>Stretches the front side of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>

DAVD MATTINEZ	Mountain	Tadasana	<ul> <li>Decompresses vertebral column</li> <li>Ignites the nervous system</li> <li>Strengthens the shoulders</li> <li>Opens the chest</li> </ul>
	Forward Fold	Uttanasana	<ul> <li>Creates a gradual yet deep spinal release</li> <li>Opens the backside of the body</li> <li>Oxygenates the central nervous system, the brain and spinal cord</li> <li>Soothes and revitalizes the central nervous system for calming effects</li> <li>Stimulates and rinses abdominal organs</li> </ul>

# **Strengthening Poses:**

Picture	English Name	Sanskrit Name	Benefits
294a/1945	Downward Facing Dog	Adho Mukha Svanasana	<ul> <li>Decompresses the spinal column</li> <li>Strengthens the shoulders and arms</li> <li>Opens the shoulder girdle and trapezius</li> <li>Creates an inversion in the body (where the head is below the heart) allowing fresh oxygen to come to the central nervous system</li> </ul>

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	Warrior 1	Virabhadrasana I	<ul> <li>Cultivates focus, awareness, and power Increases flexibility of the hips and torso Strengthens quadriceps</li> </ul>
Отралоре	Warrior 2	Virabhadrasana II	<ul> <li>Both strengthens and stretches the legs and ankles</li> <li>Stretches the groin, chest, lungs, and shoulders</li> <li>Stimulates the abdominal organs</li> <li>Increases stamina and focus</li> </ul>
FCITY EARSTAN	Wide-Legged Forward Bend	Pasarita Padottanasana	<ul> <li>Strengthen and lengthens the calves and hamstrings</li> <li>Tones internal organs including the liver, pancreas, spleen, kidneys, gallbladder, and other digestive organs</li> <li>Sends fresh oxygen to the central nervous system</li> <li>Calms and soothes the entire nervous system</li> </ul>
	Tree	Vrksasana	<ul> <li>Improves balance and posture</li> <li>Increases flexibility of the ankles, knee, and hip joints</li> <li>Cultivates focus</li> </ul>

# **Release of Tension Poses:**

Picture	English Name	Sanskrit Name	Benefits
MARTIN SCORDUTO	Sphinx	Sphinx	<ul> <li>Strengthens the spine</li> <li>Stretches the chest and lungs</li> <li>Helps relieve stress</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> </ul>
мати всекуло.	Cobra	Bhujangasana	<ul> <li>Strengthens the spine</li> <li>Stretches the chest, lungs, shoulders, and abdomen</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> <li>Opens the heart and lungs</li> </ul>
	Bridge	Setu Bandha Sarvangasana	<ul> <li>Opens chest and increases lung capacity</li> <li>Lengthens the abdominal wall</li> <li>Tones gluteus and thighs</li> <li>Stabilizes and releases the lower back</li> </ul>

MARTIN SCONDUTO	Seated Forward Bend Pose	Paschimottanasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
RORY EAF	Spread Leg Forward Bend Pose	Upavistha Konasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
	Butterfly Pose	Konasana	<ul> <li>Opens hip flexors</li> <li>Releases the periformis muscle</li> </ul>
Оперием	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>

	Child's Pose	Balasana	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Passively warms the shoulders and arms Neutralizes the spine Allows heart rate to slow Creates full body rest
ROB / EARISHAW			1	

## Savasana/Final Relaxation:

Picture	<b>English Name</b>	Sanskrit Name	Benefits
	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

## References

Core Power Yoga: Power Yoga Teacher Training: Find your voice. Discover your

power. (2013)

Betts, D. E. & Betts, S.W. Yoga for Children with Autism Spectrum Disorder: A step-bystep guide for parents and caregivers

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#### Appendix H

Lesson Title: Yoga Sequence for Children with ASD: Focus on Self-Confidence Lesson: #9 of 9 Technical Level: Beginner Duration: 20-40 minutes (depending on student's needs)

Adapted From: "Yoga for Children with Autism Spectrum Disorder: A step-by-step guide for parents and caregivers" by Dion E. Betts and Stacey W. Betts

#### Main Objectives/Goals:

- Focus on positive affirmations in order to gain self-confidence and make the child acutely aware of what is unique about them
- Create a safe environment for the yoga practice
- Create an environment which accounts for Autism Spectrum Disorder, Sensory Integration Disorder, injuries, physical symptoms, behavioral symptoms, and/or social needs as the apply to each student
- Allow the child to become acquainted with the structure of the class allowing for transparency regarding the progression of class
- Have student participate in as many of the breathing exercises and poses allowing them to build up to learning the full sequence of poses
- Increase proprioceptive skills, balance, and muscles strength
- Learn breathing techniques in order to self-regulate anxiety and self-stimulatory behaviors
- Facilitate social interactions and mirror positive social cues such as eye-to-eye gaze and proper display of emotions
- Facilitate self-confidence through acknowledging what is right about each student and through providing the student with the tools to manage and cherish his or her uniqueness

#### **Learning Outcomes:**

By the end of this lesson the student will be acquainted with the yoga environment and the routine for each class. The student will be able to demonstrate some of the postures and will build up to possibly demonstrating all of the postures. While the entire sequence of postures and breathing exercises are listed within the lesson plan, the intention is that the teacher will modify the lesson depending on the student and their specific needs in a given day. In addition The child will become more aware of their body in space and build a kinesthetic awareness and muscular strength through yoga practice. Student will feel more comfortable in social interactions with the teacher and the student will gain a sense of self-confidence through identifying their strengths and unique qualities.

## **Teacher Pre-Class Prep:**

- IPod Player
- Calm, relaxing music (depending on the sensory tolerance of the student)
- Sticky yoga mats

- Blocks and straps
- Index cards with picture of the yoga poses
- Beach Ball or Plastic Ball
- Obtain relevant history from parents/caregivers

#### **Lesson Guidelines:**

- 1. Intro to Yoga— Introduce the student to yoga letting him or her know what yoga is. Integrate the student into the routine of yoga class, take off his or her shoes when he or she gets to the door. Let the child know, "we sit on our mat for the rest of class and our mat is home. Our mat is a safe place where we can explore and grow."
- 2. Checking in—Check in on the student's mood, how he or she is feeling on that particular day, if anything hurts in their body etc. Truly listen to the information the student is providing you but in addition asses any non-verbal cues the student is giving off on the given day. Maybe he or she is tired, anxious, or happy. Use this information to inform how you will continue through the duration of class.
- 3. Namaste—"your light and my light are one"; introduce the student to the word "Namaste" teaching the child how to pronounce the word and the meaning. Let the student know that we start and end every class by saying "Namaste." In future classes allow for creativity of student creating their own meaning of Namaste.
- 4. **Debriefing on Class--** Debrief the child on what class is going to look like and ask them if they have any questions.

## 5. Breathing Exercises

- a. Belly Breathing
- b. Horse Breath
- 6. Poses
  - a. Warm-Up Poses
    - i. Sitting Pose
    - ii. Cat
    - iii. Cow
    - iv. Mountain Pose
    - v. Spine Rolls
- 7. Teacher— Give the students the option to become the teacher. Let the student know that they can teach how to do one of their favorite poses or any activities we have done before. If the student is looking for guidance hand them the yoga pose index cards and have them chose one of the poses from the deck of cards to teach to everyone. This serves as a good opportunity for the student to integrate language and physical movement along with social interaction. Be encouraging of the student when they are stepping into the role of teacher and encourage creativity and spontaneity.
- 8. Make Up Your Own Pose— Give your student the chance to come up with his or her own yoga poses. Ask students, "What is your favorite animal? How do you think it would do a yoga pose?" Encourage students to be creative and to let their imagination ignite. Have the students give a name to their pose and share the pose with the other students or the teacher.

9. Poses-

a. Strengthening Poses

- i. Chair Pose
- ii. Triangle Pose
- iii. Side Angle Pose
- iv. Downward Facing Dog
- 10. "Yogis Says"— For this activity use the rules of "Simon Says" asking the child to do certain yoga poses. For example you might say, "Yogi says do tree pose!" Take turns being the teacher allowing each student to list 3-5 poses during their turn. If the student is having a hard time coming up with a pose, let them pick a pose out of the index cards of yoga poses. Encourage an awareness of detailed directions and an integration of language and physical movement. Giving each student the chance to lead the group allows them to build self-confidence and leadership skills.
- 11. Poses
  - a. Release of Tension Poses
    - i. Sphinx Pose
    - ii. Cobra Pose
    - iii. Bridge Pose
    - iv. Seated Forward Bend pose
    - v. Spread Leg Forward Bend pose
    - vi. Butterfly pose
    - vii. Seated Spinal Twist pose
    - viii. Child's Pose
- 12. **Gratitude Ball** For this activity you will need a plastic beach ball. Have the students sit in easy pose in a circle. Pass the ball or roll the ball around the circle. When the ball lands on you, you state something that you are grateful for. Pass the ball to anyone who hasn't yet received the ball and encourage the student to think of things in their life that they are grateful for. You can explain to their students that these things can be big or small. Ask your students, "Can you think of a time recently where someone did something really nice for you that made you happy? A friend? A parent?"
- 13. Positive Affirmations— Explain to the student that, "Positive affirmations are phrases that you repeat to yourself to remind yourself of how wonderful you are and of all the positive things that you do. When we repeat positive statements to ourselves it can train our mind to remember and focus on all the positive things you do, allowing the negative thoughts to melt away." Ask the students, "Can you think of one thing you did really well in class today? Or something you did well earlier in your day? Maybe you can think of lots of things you do well!" Be encouraging with your students and provide positive affirmations for them if they are not able to come up with any themselves. Before final relaxation have the students repeat some or all of the following affirmations:

I am peace. I am joy. I am love. I am unique.

#### I shine with my inner light.

Remind the students that they can repeat their positive affirmations to themselves at any time saying, "Sometimes it is easy to focus on negative things, but next time you have a negative thought remember your positive affirmation and repeat it to yourself. Sometimes we need a reminder of all of the things that we are good at and how wonderful we are."

- 14. Savasana/ Final Relaxation—Allow child to lie still and relax and facilitate an environment to do so. The environment may change form day-to-day and childto-child, so the teacher must be attuned to the student. Walk the student through a guided full body relaxation by having them focus on relaxing one muscle at a time. Take a full body scan starting at their head and working all the way down to their toes. Let the student know, "When we relax our muscles we want them to be nice and soft like spaghetti noodles." After the student has relaxed into their final relaxation you have the option to do the "noodle test" if the student feels comfortable. For the "noodle test" gently pick up their legs and arms and gently toss and sway them from side to side in the air like spaghetti noodles. Catch their arms and legs on the way down and encourage the students to relax their body parts so they become more soft and "noodley." If their muscles are relaxed then you will be able to perform the noodle test with little resistance. If the student is having a hard time encourage them to relax saying, "Relax your arms completely" or "Pretend your legs are taking a nap." If at first it is hard for the student encourage them to keep trying and let them know that they will catch on!
- 15. Namaste/ Checking In—Students say "Namaste" at the end of each session and the teacher checks in with how the student is feeling physically, mentally, and emotionally.

## **Benefits of Breathing Exercises:**

- a. Belly Breathing
  - i. Quiets the brain
  - ii. Slows the flow of the breath
- b. Horse Breath
  - i. Relieves tension in the face and chest
  - ii. Allow the breath to slow and heart rate to calm

# Warm-Up Poses:

Picture	English Name	Sanskrit Name	Benefits
	Sitting Pose	Sukasana	<ul> <li>Calms the brain</li> <li>Strengthens the back</li> <li>Stretches the ankles and feet</li> </ul>
	Cat	Marjaryasana	<ul> <li>Stretches the backside of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
NUEL NO	Cow	Bitilasana	<ul> <li>Stretches the front side of the body and neck</li> <li>Gently massage the spine and abdominal organs</li> </ul>
DAVE MARITIZEZ	Mountain	Tadasana	<ul> <li>Decompresses vertebral column</li> <li>Ignites the nervous system</li> <li>Strengthens the shoulders</li> <li>Opens the chest</li> </ul>

	Forward Fold	Uttanasana	<ul> <li>Creates a gradual yet deep spinal release</li> <li>Opens the backside of the body</li> <li>Oxygenates the central nervous system, the brain and spinal cord</li> <li>Soothes and revitalizes the central nervous system for calming effects</li> <li>Stimulates and rinses abdominal organs</li> </ul>
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# **Strengthening Poses:**

Picture	English Name	Sanskrit Name	Benefits
	Chair	Utkatasana	<ul> <li>Strengthens the back, quadriceps, and hips</li> <li>Increases heart rate and subsequently increases circulation throughout the body</li> <li>Stimulates metabolism</li> </ul>
Contraction of the second seco	Triangle	Trikonasana	<ul> <li>Opens the sternum, ribcage, and cardiovascular system</li> <li>Creates space throughout upper back and long muscles of the spine</li> <li>Stretches the sides of the body</li> </ul>

FCR; EARLS 4.2	Extended Side Angle Pose	Utthita Parsvokonasana	Increases Balance and Coordination Strengths and stretches the legs, knees, and ankles Stretches the groin, spine, waist, chest, lungs, and shoulders Stimulates abdominal organs Increases stamina and concentration
Forestard	Downward Facing Dog	Adho Mukha Svanasana	<ul> <li>Decompresses the spinal column</li> <li>Strengthens the shoulders and arms</li> <li>Opens the shoulder girdle and trapezius</li> <li>Creates an inversion in the body (where the head is below the heart) allowing fresh oxygen to come to the central nervous system</li> </ul>

## **Release of Tension Poses:**

Picture	English Name	Sanskrit Name	Benefits
	Sphinx	Sphinx	<ul> <li>Strengthens the spine</li> <li>Stretches the chest and lungs</li> <li>Helps relieve stress</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> </ul>

MATTIN SCHEUTO	Cobra	Bhujangasana	<ul> <li>Strengthens the spine</li> <li>Stretches the chest, lungs, shoulders, and abdomen</li> <li>Firms the gluteus</li> <li>Stimulates abdominal organs</li> <li>Opens the heart and lungs</li> </ul>
	Bridge	Setu Bandha Sarvangasana	<ul> <li>Opens chest and increases lung capacity</li> <li>Lengthens the abdominal wall</li> <li>Tones gluteus and thighs</li> <li>Stabilizes and releases the lower back</li> </ul>
MARTIN SCONDUTO	Seated Forward Bend Pose	Paschimottanasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>
RORY EARNSHAW	Spread Leg Forward Bend Pose	Upavistha Konasana	<ul> <li>Calms the brain and helps relieve stress and mild depression</li> <li>Stretches the spine, shoulders and hamstrings</li> <li>Stimulates the livers and kidneys</li> <li>Improves digestion</li> </ul>

MARY SCORDUTO	Butterfly Pose	Konasana	<ul> <li>Opens hip flexors</li> <li>Releases the periformis muscle</li> </ul>
DORATOR IN THE OTHER PARTY OF TH	Seated Spinal Twist Pose	Ardha Matsyendrasana	<ul> <li>Rinses the vital organs of impurities through compression</li> <li>Releases residual tension in the body</li> </ul>
KCRY EARINSHAW	Child's Pose	Balasana	<ul> <li>Passively warms the shoulders and arms</li> <li>Neutralizes the spine</li> <li>Allows heart rate to slow</li> <li>Creates full body rest</li> </ul>

# Savasana/Final Relaxation:

Picture	<b>English Name</b>	Sanskrit Name	Benefits
ATTENS:	Corpse Pose	Savasana	<ul> <li>Deepens your breath</li> <li>Relaxes the entire body</li> <li>Allows body to absorb and integrate the poses it has experienced</li> <li>Carries you into deep relaxation, peace, and meditation</li> </ul>

## References

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Betts, D. E. & Betts, S.W. Yoga for Children with Autism Spectrum Disorder: A step-bystep guide for parents and caregivers

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#### <u>Reflection</u>

For my senior thesis project I explored yoga therapy as a viable treatment option for children with Autism Spectrum Disorder. For the thesis project I developed a series of nine lesson plans which directly address the symptoms of Autism Spectrum Disorder. The five categories emphasized in the lesson plans were: language stimulation, physicality, social interaction, self-calming, and self-esteem. In addition each yoga class was composed in such a way to honor the need for structure and continuity especially in the given population of children with Autism Spectrum Disorder. The structure weaved through each yoga class aimed to calm the anxiety that coincides with change as well as to increase learning through repetition.

Through my research I learned that yoga therapy is a potentially potent method for symptom relief on a physical, emotional, and intellectual level. The classes are structured to aid children in learning how to manage their symptoms and develop a new self-concept influenced by positive affirmations and yogic philosophy. Furthermore my senior thesis project reminded me of the importance of flexibility—not only physical but mental. While the course of my thesis took a different path than my original intentions, my devotion to non-attachment in my yoga practice allowed to move with the changing tides of my thesis rather than holding onto my original conceptions of how my thesis should be. My original plan for my thesis was to teach children's yoga classes to students with Autism Spectrum Disorder, but because of scheduling difficulties these plans were not able to come to light. Through my commitment to my yoga practice I was able to openly proceed down a new path which ended up possibly being more fruitful than my original plan. My revised plan was to create a series lesson plans based upon the

fundamental categories as outlined in my research. By creating lesson plans devoted to each category of treatment, I was able further dive into my study and draw connections between undergraduate research, dance teaching, and yoga teaching in order to provide symptom relief for children with Autism Spectrum Disorder. My commitment to creating meaningful lesson plans for language stimulation, physicality, social interaction, selfcalming, and self-esteem allowed me to not only further explore treatment methods but to also use my own creativity to integrate my unique perspective. Through mindfulness and commitment I composed a series of intentional and meaningful lesson plans. I have also observed this realization between the distinction of my imagined plans and reality within other areas of my life including as a student and an artist. Through being vulnerably present and open to the "failure" of an idea I have empowered myself to embrace the moment and my life plan as it unfolds before me. Throughout my work of my thesis I continually came back to the quote by J. R. R. Tolkien, "Not all of those who wander are lost." Through the vulnerability to allow myself to "wander" along a new path I came upon a fulfilling final destination. As I continue onto new ventures beyond college I will bear this awareness of the importance of exploring rather than fixating on the end goal of a given path.

I am incredibly proud and feel deeply connected with my final thesis project. My work in my final thesis project has tied together the strings and passions that were once separated during my time as an undergraduate student into one concise knot. My thesis has allowed me to see the unity between my passions of yoga, dance, and movement as therapy; because of this unity my thesis is a reflection of my mind, body, and spirits connection to the research. Due to my relationship to my thesis and honoring of the

journey as a distinct path, I would not change anything about my thesis. The wandering and evolving of the work created fruitful seeds which all have clear learning experiences. In addition my devotion to my thesis reminded me of the importance of acknowledging my hard work and giving myself full credit, something that I have not previously been able to fully implement in my life as a student. My passionate and patient commitment to my work and its distinct path allowed me to produce a final thesis project which reflects me as a whole human being, mind, body, and spirit. From this perspective I chose to move along a new path and simply state that I am incredibly proud of myself.

In the future I plan to continue working on my thesis by teaching the lesson plans I have created and by further improving on the yoga classes through personal experience and adaptation. I hope to take my knowledge acquired from my thesis and to continue to use these foundations to learn and expand my understanding through my mind, body, and spirit. I plan to research and understand yoga therapy as it relates to different ailments and how I can be of service to others. By continuing to learn and committing myself to growth I intend to trust in my own life path. Just as I did within my thesis I will allow myself to wander knowing that while the unknown can be scary, its gifts can be bountiful. Whether my life path continues with yoga and children or moves in a different direction I intend to continue to explore with a child-like awe and excitement about the opportunities ahead of me.

My work during my thesis has already informed my connection with my yoga students and will continue to inform my teaching as I graduate and precede on my journey of learning outside of the university setting. While my thesis focused on children with Autism Spectrum Disorder, the themes and concepts I worked with apply to the

population at large. My thesis took a large interest in the concept of self-esteem and forming a new self-concept influenced by yogic philosophy. This interest has translated out of my lesson plans of the thesis and into my time guiding students in the classroom. From my work I have been able to vulnerably connect with the concept of self-esteem and to speak truthfully to my students regarding self-esteem. Rather than facetiously eluding to a complete contentment with myself, I have been able to honestly share my own struggles to have complete self-confidence. Through this vulnerability and ability to be real and honest in my teaching I have found more prolific connection to my students. Ironically through these connections with my students on the reality of my sometimes wavering self-esteem, I have found self-esteem and grounding by realizing that my teaching and words resonate with my students. From this genuine space I have realized that I am a meaningful part of my student's lives. I continually allow this truth to fully resonate with me and am constantly reminded of this during my interactions with my students. Through my connection to my students I find confidence in myself and foster confidence within my students. As I continue to teach I intend to create a yoga setting in which I allow my students to be fully seen in class and to simply be without expectation or judgments. It is through the mutual support and ability to be vulnerable that I find I am most of service to others. My continual commitment to teaching and living from an open heart-space that embraces vulnerability and connection will allow my students and me to continually cherish uniqueness.

### Loyola Marymount University Mission Statement

Through my research and commitment to my senior research project entitled "Managing and Cherishing Uniqueness: Yoga Therapy as a Holistic Approach for Children with Autism Spectrum Disorder" I assimilated many passions and interests which once felt separate and distinct during my time as an undergraduate student. Conducting research on teaching yoga to children with Autism Spectrum Disorder and creating a set of lesson plans allowed me to integrate many of my passions including: teaching, working with children, and using movement as a modality for physical, mental, and emotional healing. My senior thesis project directly relates to Loyola Marymount University's mission statement of men and women being of service to others. Through my work in my senior thesis project I have not only fueled my desire to be of service to others through my knowledge of the therapeutic benefits of movement, but have also further developed my personal yoga practice. Through the utilization of my passion for the therapeutic benefits of movement I feel I am most able to connect with being of service to others. The richness of the work of yoga therapy resonates deeply within me, and through this genuine understanding I am able to give myself to others. It is through the bettering of my community as a whole that I feel most alive to the world and connected with my life purpose. Yoga is defined as union or yoking of oneself to the entire universe. Through my commitment and relationship with my senior thesis project I have further discovered my connection to the universe at large and the universality of my mind, body, and spirit. While I see myself as a distinct and unique human being, my research has further affirmed my faith of the oneness of myself and others. Through my research and lesson plans for developing a holistic yoga practice for children with Autism

Spectrum Disorder I have paved the road for myself and others to continue to be men and women of service. It is through the continued commitment of giving myself of service to others I find true purpose and further precede on the path of yoga and the ultimate enlightenment of the oneness of the universe.

### Course Reflections

#### Fundamentals of Dance Composition II:

- We added to our knowledge of improvisation and learned to develop and cultivate improvisation into structured choreography.
- Through this analysis of improvisational methods we explored various methods of improvisation taking into account our own mind, body, spirit in relation to each of these exercises; through this mindfulness process we observed which improvisation techniques yielded the most authentic material.
- As a part of the course we kept a journal mapping out our emotional connection to improvisation exercises we created in class.
- We explored the importance of making choices and the necessity of making strong clear choices in order to move towards a more clearly finished product.
- We participated in various group improvisations in which as a dancer we became aware of our place in a larger community of dancers; through such improvisations we were presented with the opportunity to perform in the group as a soloist or as a member of the entire group.
- Throughout the course we learned how to give and receive critiques exploring techniques that were most successful for giving genuine and impactful feedback.
- In addition we read the book *Art and Fear* that dove into the psychological difficulties and blocks to creativity a dancer can experience. This enabled us to understand the nature of an art form in which we allow our true selves to be vulnerable and be fully seen.

Dance Styles and Forms:

- Expanding on previous choreographic techniques, Dance Styles and Forms further explored the various choreographic devices and the implicit messages created via implementing certain devices in combination with the dancers, space, and music.
- Research included looking into the history of a given piece of music, the period in which the music was composed, and the context of our current society within the given historical context.
- We created a solo and a group piece in which we implemented various choreographic devices, Laban Movement Analysis, as well as knowledge of the history and context of a piece of music in order to create movement that honored this heritage of music.
- Dancers participated in a site-specific work in which they explored outside of the dance studios and in the LMU community as a whole. Through such work dancers were confronted with questions such as the dancer's place in an environment and the functioning of the environment as a whole.
- Promoted a deeper expressive knowledge of how to hear and express music through a deeper lens looking at the tempo, pitch, and structure of a piece of music.
- Cultivate an open line of communication within the creative process in order to optimally participate in group choreographic processes. Dancers were asked to see their place in a dynamic relation between themselves and the other dancers.

### Laban Movement Analysis:

- An introductory level course to the Laban Movement Analysis System allowed for students to describe different movement modalities more thoroughly and precisely using the Laban Movement Analysis Terms.
- Analysis looked towards uncovering inherent universal truths and personal truths contained in different movements.
- We read about the life of Rudolf Laban and the development of his systems in order to have a refined understanding of the course material.
- Explored and Analyzed Body, Effort, Shape, and Space and the Bartenieff
   Fundamental Patterns of Total Body Connectivity through physical exploration
   including improvisation and choreography.
- We explored and documented the connections of the LMA concepts and how they correlated with the dance curriculum at LMU (including technique class, improvisation, choreography, and theory based classes); in addition we explored connections between LMA and daily living.
- In addition to working with groups, we created various solos utilizing the LMA Systems and the Bartenieff Fundamental Patterns of Total Body Connectivity, exploring outside of the classroom and expanding our Space to encompass the LMU environment as a whole.
- We kept a daily journal about our experiences within the classroom and how our learning transcended into other areas of our life. In addition we were often asked to employ LMA to look at other mediums of art and movement including painting, music, sports, and daily living activities.

The course work cumulated with a final movement study in which dancers
repeatedly observed a self-chosen activity outside the realm of dance. Dancers
were asked to witness the movement in terms of Space, Shape, Effort, and Body.
From the continued observation the dancer choreographed a movement study
highlighting the implicit elements of the object observed. In addition dancers
wrote a paper reflecting on the experience and articulating their intentions behind
each choice made during the course of the study.

# African Drumming:

- Students learned and practiced in hand drumming techniques based on classic African folklore.
- Students learned multiple patterns which allowed the students to explore tempo, rhythm, and speed while simultaneously learning the traditional lyrics to the folkloric songs and singing the lyrics.
- Developed student's understanding of rhythm and phrasing and how such knowledge could translate into the dancer's development in the studio while practicing and on stage performing.
- Students were challenged to learn not only how to create rhythm but how to consistently play a rhythm; this allowed the students to achieve a meditative state of being in the flow of the music and being fully present during the drumming.
- The class notably cultivated a greater enjoyment of African Drumming class but also affirmed the importance of each and every student in this and other classes.

# To Dance is Human: Dance, Culture, and Society:

- Throughout the course we examined and witnessed the wide range of avenues through which dance is used including: dance as ritual, rite, entertainment, art, and political reform.
- Students were further immersed to different cultures and contexts of dance including guest lectures on dance and Judaism, dance and Veterans, and Indian dance.
- Throughout the course we revisited dance in our home town and culture of Los
   Angeles while also exploring other cultures and forms of dance; as we opened our
   eyes to other disciplines we stayed mindful of our perspective as Los Angelinos,
   college students, etc.
- The course work emphasized was the importance of context in the development, performance, and witnessing of dance across cultures; every person has a unique and complex history which they bring to each performance or viewing of dance and movement. The histories and contexts are the way by which we see the world and influence our connection, emotional investment, and overall understanding of a piece of work.
- Throughout the course we used physical movement to contextualize the information we received in class and to see the course context through a different lens; course work itself was also presented in the contexts of printed words, films, and live performances.

- Various improvisation exercises were implemented asking the students to use their senses to remember and recall in order to delve deeper into their own understanding of dance and of their true self and connection to movement.
- Students cultivated the ability to mindfully and intelligently reflect and write on movement of different cultures and paralleling cultural issues.
- The structure of the course promoted an interdisciplinary outlook which also took into consideration multiple intelligences; information was presented and perceived through many different outlets in order to optimize learning; through the class structure students were exposed to a valuable new style of learning.

# Dance History (Transfer):

- Throughout the course dancers studied the progression of dance and relevant art forms in the 19<sup>th</sup> and 20<sup>th</sup> centuries.
- Students acquired an appreciation for dance as a form of art encompassing the entertainment, social, and political roles of dance throughout the centuries.
- Students developed proficient skills in order to view and write about dance.
   Dancers were urged to use a holistic perspective to viewing and writing about dance by acquiring as much information as possible about a given piece of art.
- Class work focused on the Romantic Era of dance and the various ballets choreographed and performed during this time period. By focusing on this era of dance, students were able to observe correlations between art a whole in the romantic era and art in future eras.
- Students focused on famous choreographers and dance styles, learning about the defining characteristic and stylistic choices of these artists and dance styles; in

addition to text information dancers were presented with the opportunity to physically move and experience different dance styles in their body in order to have a multisensory perspective.

- Dancers compared and contrasted the development and physical structure of dancers over the ages examining the setting, structure, and music, as well as taking into consideration how these elements evolved in the art of the different eras.
- We focused on the evolution of costuming and lighting over the centuries focusing on these elements as evidence of art themselves which supported and often elevated dances.

# Kinesiology II:

- Through the course content we explored the anatomy and biomechanics of the human body in order to apply this knowledge to dance technique and performance. The application of the material allowed us to understand how to move in a succinct and anatomically correct fashion in order to prevent injuries.
- We explored the functions of a few of the major joints in the body spine, pelvis, hip, knee, ankle/foot, and shoulder- through text, lectures, and physical movement.
- The relation of these major joints as they relate to alignments and the kinematic chain were discussed in order to improve alignment and safety within dance technique.
- Expanded our biomechanics and anatomy knowledge and applied this information to the analysis of movement.

- For our final project we accumulated the knowledge we gained throughout the semester and used this knowledge to analyze a pattern of movement we had observed in our bodies during technique classes, improvisation, performance etc. We wrote a final paper which explored the biomechanics of this movement pattern and how to actively and effectively correct this movement pattern in order to maintain proper alignment and prevent injuries.
- We explored personal limitations based on each student's unique anatomy in order to apply the classroom work into dance technique classes. Such exploration of one's limitations and anatomy aids in career longevity and injury prevention allowing the dancer to work intelligently with his or her own unique anatomy.
- We applied our knowledge of anatomy and biomechanics in order to describe movement using proper anatomical terms including movement of major muscles and joints.
- We explored strengthening and stretching exercises as they pertained to certain muscles groups and major joints in order to optimize one's dance technique.

### Principles of Teaching:

- The course material empowered students to integrate technical and theoretical dance knowledge to create and effectively teach an informed and insightful dance course.
- Students analyzed the different types of learning including Gardner's multiple intelligences in order to optimize the learning of students by embracing a multi-disciplinary perspective.

- We applied our knowledge of dance in order to create a variety of lesson plans which meet the California standards for dance in K-12.
- We researched and discussed issues among dance education including the funding and importance of such a learning style and discussed ways in which to implement change.
- We created lesson plans that followed a logical progression in order to optimize the learning of the target age/demographic group.
- Discussed the importance of historical and cultural dance and its ability to unite students within the classroom setting.
- We created a lesson plan and taught a single class to the other students in the course in order to practice the knowledge we had acquired about teaching.

### Careers In Dance:

- We engaged in the skills and tools necessary in order to pursue a career in various fields of dance as well as fields outside of dance, including yoga and dance movement therapy in order to tailor the class to my personal career aspirations.
- We discussed how much of career development is about who you know and what they think of you; through this fact we explored the importance of first impressions, being professional, and being prepared.
- We worked as a class on creating effective introductory emails, resumes, biographies, headshots, business cards, and video reels.
- We meet with various professionals within the field of dance including dancers, choreographers, and dance agents in order to facilitate genuine interactions in

which the guest speakers shared stories and advice; this allowed the class to ask questions and make connections.

- Throughout the course of the semester we worked on various drafts of our headshot, resume, introductory email, and biography which lead to our final project of a mock introductory package to a future employer which integrated all of the above elements.
- We worked with the professor to shed light on the importance of reliability, organization, and professionalism in order to obtain and keep a job within the field of dance.

# **Ballet**

- Proper alignment and places were emphasized looking at the classical positions and lines of ballet technique while also keeping in mind the unique anatomy of each dancer.
- Dancers further developed their knowledge and understanding of ballet vocabulary through proper spelling and demonstration of the codified terms.
- Through the continued classworks and the advancement of technique over the years dancers strengthen their muscles creating more power in their muscles in order to move more efficiently; through the strengthening of their muscles dancers were encouraged to implement their knowledge of anatomy and physiology in order to move with more ease and less pain.
- Dancers improved on their flexibility in all areas of their body including in their mind; through this improved flexibility dancers worked intelligently, being mindful to balance flexibility with strength in order to optimize their movement.

- Proper por de bras and epaulment was emphasized throughout every dance course at LMU. Dancers learned to move through the proper position while also cultivating a sense of grace and lightness through their por de bras. By focusing on the carriage of their arms dancers were empowered to be able to tell a story and convey emotions simply through the movements of their arms in space.
- Dancers were asked to be fully present in mind, body, and spirit in the classroom. This allowed each classroom experience to be an interaction between whole and present dancers moving through space while interacting with each other, the environment, and the teacher.
- Dancers strengthened their physical and mental stamina by becoming aware of the difference between physical fatigue and mental fatigue. Dancers learned to embrace will-power and were asked to deeply explore themselves in order to discover and implement the fine line between physical and mental parameters; this mindfulness allowed dancers to cultivate a knowledge of when it was appropriate to push themselves to their physical and mental limitation and when it was necessary to dance below their limit. Through this cultivation dancers are able to implement this self knowledge in their future careers whether they are within or outside of the dance field.
- Articulation of the feet and maintaining turnout throughout ballet class was emphasized in every technique class. Dancers cultivated a self-awareness and self-discipline in order to achieve optimal foot articulation and maintained turnout of their legs.

- Dancers optimized their jumps using ballon and learning how to utilize their plié in order to jump higher and with more ease; teachers explored concepts such as actual propelled weight, rebound, and momentum in order to further understand the physics behind jumping and how to best move through the air. An incredibly important discovery within executing jumps was centering of the dancer's mindset and adapting a light and graceful emotional state in order to improve one's jumps.
- Precession and special clarity were emphasized within the classroom. Dancers were prompted to be precise with their movement and directions while they were moving for safety, but to also create a clear canvas to paint emotions and artistic performances upon.
- Dancers strengthened their core and became acutely aware of the importance of their core throughout every ballet movement. Students built the stamina in order to keep their core engaged throughout class so that dancers could find stability coupled with freedom in other parts of their body.
- Musicality and building an awareness of the structure and tempo of the music allowed dancers to increase their knowledge of music in order to stay on tempo with the music and to elevate their performance. Dancers cultivated a knowledge of how to move rhythmically and dynamically with or without the presence of music.
- Dancers were given the freedom to explore their own artistry using imagery and mental intentions in order to grow as artists and to express themselves and their emotions in a more authentic way.

 Through continued practice in class, dancers improved their ability to learn combinations quickly and effectively and being able to execute such combinations while keeping their original nuances intact.

• Dancers cultivated a preparedness for class, a strong work ethic, and awareness of their attitude and emotions towards class in order to optimize their movement and learning within the classroom; this type of learning emphasizing self-awareness and discipline translated to the dancers life in non-dance classes at the university and to life as whole outside of the university. Dancers cultivated a driven and self-aware perspective which allowed the dancer to be fully present, mind, body, and spirit in all of life's endeavors.

#### Modern

- Understand and experience Countertechnique in order for the dancer to move faster and larger but with more ease in order to optimize movement and minimize injury.
- Dancers were prompted to explore the physical space around them implementing different kinespheres and becoming actively aware of Space and how Space changes; as the dancer moves through space they actively transform and create a new Space.
- Dancers used their knowledge of anatomy and kinesiology in order to move in the most optimal anatomically correct position; through anatomical knowledge and self-awareness dancers harnessed the skills to understand the unique variations of their own body and to learn how to optimize their dancing and well-being keeping their body in mind.

- Dancers lessened their fear to take risks and were encouraged to push themselves to their limits; through this process students were able to recognize the mental parameters and preexisting notions which prevent them from dancing at the edge and at their highest capability.
- Dancers became proactive in the classroom allowing themselves to discover solutions and find connections between their work in the classroom, with work outside of the classroom, and life as a whole.
- Through the practice of attending class everyday dancers learned how to be fully present in mind, body, and spirit; through this practice dancers were able to harness the tools and ability to be their whole selves while dancing. Dancers cultivated an awareness of their unique perspective and context which deserved to be seen in space.
- The exploration of various somatic movement methods including: Body Mind Centering, Authentic Movement, Alexander Technique, and Skinner Releasing allowed dancers to experience movement in new ways; embracing a multidisciplinary perspective which emphasized multiple intelligences dancers were able to learn more deeply about movement. Through this process students were able to discover what types of movement and styles of teaching best correlate with the students' personal intelligence.
- Dancers were encouraged to dance with their whole body, becoming more aware of more minute details of their own fingers, eyes, and lips, and how the entire body exudes a story.

- Focus was centralized on the transitions and the importance of nuances in these transitions that link together main movements; dancers were pushed to emphasize the transitions in their work and to ultimately view everything as one rather than a transition to get to the next movement. Through such a perspective the dancers were inadvertently asked to be fully present in the moment.
- Dancers grounded down through their dancing, focusing on the articulation and placement of their feet while simultaneously focusing on their connection with the ground within floor-work and standing-work.
- Dancers were encouraged to focus integrating learning inside and outside of the classroom in order to be fully present mind, body, and spirit; dancers became aware of their importance influence on the community of dancers as a whole.

# Jazz (Transfer)

- Dancers explored a variety of commercial dance techniques including but not limited to: Lyrical, Contemporary, African, and Hip-Hop.
- Dancers focused on proper technique and the correlations between classical ballet technique and the proper execution of jazz technique.
- Throughout the technical progression of the class dancers were exposed to the history of jazz dance and took part in the history by learning about the transformation of jazz dance over the years through movement explorations.
- Mental stamina was developed by asking the dancers to quickly and efficiently
  remember and properly execute choreography presented to the student; over time
  the combinations became increasingly more challenging and students were
  expected to continue to grow with the progression of choreography.

- Students advanced their technique, flexibility, and strength over the course of the class; such growth was measured and able to be observed through repetitive combinations which served as markers for progress over the semester.
- Dancers explored their own artistry using imagery and personal anecdotes in order to grow as artists and to expressive themselves and their emotions in a more authentic way. Through this exploration dancers acquired the ability to reconnect with past memories and emotions in order to become more personally invested in a piece of choreography in order to tell a story; dancers learned to tell a story of their most vulnerable self.
- Over the course of the class dancers developed their musicality, connection, and understanding of music; dancers were encouraged to listen to the various instruments within a song and find nuances in the music to further their dancing and ability to connect with a piece of music.
- Through conversations with the teacher and outside lecturers the students learned the high level of commitment and passion necessary to be successful in the dance world; students had the opportunity to interact with working professional and seek advice and make connections regarding a future career in dance.

# Yoga for Dancers

- Dancers focused on having an overview of yogic philosophy while exploring how such philosophies fit into the dancer's life inside and outside the dance studio.
- We focused on the fundamentals of yoga, taking an anatomy-based approach which emphasized proper alignment. Along with correct alignment dancers were

encouraged to become aware of how their muscles were working during certain postures and to be able to use this information for further development.

- Through the series of postures of class and the flow of breath to movement within these postures, dancers conditioned and strengthened their entire body while simultaneously using their breath; connecting the mind and body of the dancer.
- We focused on the mind, body, spirit connection taking moments of reflection inside the classroom, which translated to moments of mindfulness outside the classroom; through such work we were able to explore the subtle emotions in our body not only in yoga class but throughout other dance classes and in life as a whole.
- Dancers harnessed the ability to be self-reflective and to become the watcher of their own mind allowing them to become more intuitive and in touch with a deeper part of themselves.

#### <u>Pilates</u>

- We learned the fundamental of Pilates reformer and mat work from an anatomical perspective which simultaneously focused on mindfulness through these exercises.
- Dancers focused on conditioning their bodies for optimal health throughout dancing and performing at LMU and for future careers.
- Through the movement of Pilates dancers were conditioned to strengthen their core while simultaneously using their breath; connecting the mind and body of the dancer.

- Proper alignment was emphasized including alignment of the pelvis and spine in space. Individual attention was given to each dancer in order to help the dancer achieve and maintain an anatomically correct position for optimal movement without injury or pain.
- Dancers kept a journal throughout the course, taking note of cues and ideas that were discussed during each session in order to optimally grow from session to session.

AND IN

### Artist Statement

"Vulnerability is the birthplace of innovation, creativity and change." Brené Brown's words about the power of vulnerability have greatly shaped my perspective as an artist, a teacher, and a part of a community. Through vulnerability and the courage to allow yourself to be truly seen in your most raw emotional sense we foster connection. I find inspiration as a mover through the continued commitment and recommitment to the process of vulnerability in order to foster connection, love, and creativity. Whether as a yoga teacher, a dancer, or an explorer of movement therapy I resonate the strongest with the ability to be vulnerable and emotionally honest in order to foster deep-seated connection; a transformative connection in which you feel as if you have known another person forever. Through the union of yoga and the realization of the universality of the world, I share a part of my soul and spirit with others and my spirit becomes electric to the immaculate ability for connection.

Brené Brown's TED Talk entitled "The Power of Vulnerability" is a comprehensive speech on a research study and a piece of art that I constantly revisit for inspiration. With each revisit I bring a different perspective and find more fruitful knowledge within her genuine depiction of her story to discover and understand vulnerability. In her speech Brown states, "We cultivate love when we allow our most vulnerable and powerful selves to be deeply seen and known, and when we honor the spiritual connection that grows from that offering with trust, respect, kindness and affection." Brown's research has remarkably found that the key to cultivating love and connection is vulnerability. The fundamental difference between those who were able to foster love and connection in their life versus those who struggle was the simple

affirmation and belief that "I am deserving of love and connection." Through the act of being aware of your needs and truly believing that you are deserving of your needs, you can be empowered to manifest these desires within your life.

As a yoga and dance teacher I repeatedly come back to this knowledge and how it informs my connection with my students. By simply adopting a perspective that you are deserving of love and connection, you can get love and connection. This simplicity manifest into all areas of my life and further helps me realize the power of the mind and spirit. Through years of extensive dance training and yoga practice I have fostered my connection to my body in order to connect with my spirit. Movement transforms lives by allowing people to connect mind, body, and spirit. Within my background of classical ballet my outlet for connection is through my body. But this trilogy allows for people of multiple types of intellects to connect with this knowledge through varying outlets whether that be the mind, body, or spirit.

The presence of vigorous classical ballet training in my life from a young age has greatly informed my relation to movement. While the dynamic rigor and grace of classical ballet appeal to me on a deep level, my awareness of the therapeutic benefits of movement have altered my relation to movement. Deep within me is an immense love for the feminine and graceful movements of classical ballet as embodied in the ballet *Giselle*. Yuan Yuan Tan's performance of *Giselle* epitomizes the whole-body grace and vulnerability that ties me to classical ballet. Yuan Yuan Tan, a principle dancer at the San Francisco Ballet, not only has immaculate technique, but her portrayal of Giselle emotes vulnerability. Tan's ability to emotionally connect with the story line of the ballet allows for further connection with the audience. In January of 2014 I experienced a live performance of *Giselle* at the San

Francisco Opera House where Tan performed the role of Gisele. At this performance I felt deeply connected to my embodied history of ballet and how it has informed my life path. The nuances of her movement flow with a sense of emotional grace. Tan, while remaining in physical control, allowed herself to be emotionally exposed and vulnerable. The dynamics between technical caliber and emotional portrayals created a lively performance that resonated with me as an audience member. Beyond the physical grace encompassed in Tan's body, her emotional grace, humility, and vulnerability connect me with ballet. As an artist and a teacher I strive for connection with emotional grace and vulnerability in order to foster relationships.

Damian Smith and Yuan Yuan Tan in Christopher Wheeldon's *After The Rain* represent the further ability to connect through vulnerability within contemporary ballet. The *pas de deux* takes place on a stage overlooking the sparkling ocean at sunset. The connection to nature creates layers of dynamics in the piece as you see the wind blow through Tan's black hair and Wheeldon's emotional reaction when the sun shines on his sternum as he moves into a backbend. The couples close connection to one another and the trust needed to perform the suspenseful leg extensions in the *pas de deux* create a profound connection between the two dancers. Tan without hesitation fearlessly falls into Wheeldon's arms as he sweeps her across the stage into an embrace as they move closer to the center of the sunset. Deep connection, the ability to be vulnerable, and the courage to give your truest self over to another person allow for the enmeshed connection portrayed in Tan and Wheeldon's partnering. The dancers ability to connect and create vulnerability through a site-specific contemporary ballet by the ocean epitomizes the shift in my valuing of aesthetic. While the immaculate technical precision of the ballet dancers still appeals to me, my mind, body, and spirit are moved by the dancers' ability to be

human and to unite. Regardless of technique, body type, or background the beauty in dance is its ability to inspire intimate connection and foster shared emotional vulnerability.

Phillip Askew and Lydia Walker's dance "Variations on Surya Namaskara" represents my transition from the art of classical ballet to my existence as a yoga practitioner and yoga teacher. Askew and Walker seamlessly blend ballet, yoga, and partnering work into a moving variation of the traditional sun salutations, or *surya namaskara*, of yoga. Accompanied by the pianist Jonah Rank, Walker begins crouched on top of Askew's back. Askew effortlessly moves into *adho mukah svanasana*, or downward facing dog, from where he supports the vulnerable Walker who is solely counting on him to bear her weight. As the dance continues and the artists seamlessly flow connecting their breath and bodies there is a dynamic interaction between giving and receiving; a painstaking commitment to one another and a trust in the commitment of each person. The dancers have a dynamic existence between suspending mid-air using one another's body weight and coming into stillness with their hands coupled at heart center. Moments of stillness within their duet have as much communicative power as the intricate partnering movements. The power of stillness represents the complete connection and *santosha*, or contentment, in the ability to be vulnerably still.

Through dance, yoga, and movement I find a mind, body, connection of emotional grace and light-heartedness through physicality coupled with stillness. Within my yoga teaching I intend with each interaction to openly give students the opportunity to experience the emotional transformation of movement; the ability to connect and be vulnerable through movement. To evoke with your body and to speak what words cannot

express. Through this attention to emotional grace within my yoga practice, as well as my life as an artist, I always come back to the concept of gratitude. Gratitude and the immense richness of my life allow me to share dance, yoga, and the therapeutic benefits of movement. The practice of gratitude fuels my ability to vulnerably connect with my students, fellow dancers, and community at large.

"Gratitude unlocks the fullness of life. It turns what we have into enough, and more. It turns denial into acceptance, chaos to order, confusion to clarity. It can turn a meal into a feast, a house into a home, a stranger into a friend. Gratitude makes sense of our past, brings peace for today, and creates a vision for tomorrow."—Melody Beattie

# References

- Jonah Rank. (2008, December 20<sup>th</sup>) Phillip Askew & Lydia Walker Variations On Surya Namaskara (Music by Jonah Rank) [Video File] Retrieved from: https://www.youtube.com/watch?v=RcqvIJIjh9g
- TED Talk. (2010, June) Brené Brown: The Power of Vulnerability [Video File] Retrieved from: http://www.ted.com/talks/brene\_brown\_on\_vulnerability
- (2011, January 24<sup>th</sup>) Damian Smith and Yuan Yuan Tan in Christopher Wheeldon's After The Rain [Video File] Retrieved from:

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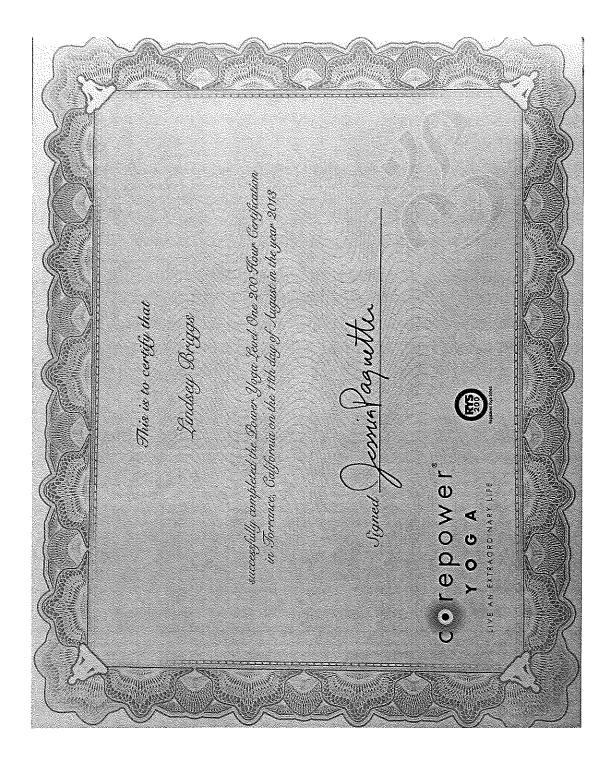
# Career Search

Dance Movement Therapy Graduate Programs:

- American Dance Therapy Association -- http://www.adta.org/about\_dmt
- Antioch University- New England-- <u>http://www.antiochne.edu/applied-psychology/dance-movement-therapy/</u>
- Columbia University- Chicago-- <u>http://www.colum.edu/academics/fine-and-performing-arts/creative-arts-therapies/index.html</u>
- Drexel University- Philadelphia-http://www.drexel.edu/artsTherapies/programs/danceMovementTherapy/
- Leseley University- Cambridge-- <u>http://www.lesley.edu/master-of-arts/expressive-therapies/mental-health-counseling/</u>
- Naropa University- Boulder-- <u>http://naropa.edu/academics/gsp/grad/somatic-</u> counseling-psychology-ma/dance-movement-therapy/index.php
- Pratt Institute- Brooklyn- <u>https://www.pratt.edu/academics/degrees/graduate/dance-movement-therapy-ms/</u>
- Sarah Lawrence College- Bronxville-- http://www.slc.edu/movement-therapy/#.TxnU6bNnV6c.email
- Alternate Route Guidelines from ADTA-- <u>http://www.adta.org/Alternate-Route-Information-for-Eductors</u>

Yoga Therapy Graduate Programs:

- Integrative Yoga Therapy-- <u>https://iytyogatherapy.com/</u>
- Yoga Therapy Rx- Loyola Marymount University-http://academics.lmu.edu/extension/programs/yogatherapy/
- Phoneix Rising Yoga Therapy-- http://pryt.com/yoga-therapy-training/
- International Association of Yoga Therapist -- http://www.iayt.org/



# Parent Questionnaire For Yoga Class<sup>i</sup>

Name of Child:
Date of Birth:
Parent/Guardian:
Address:
Cell Phone Number:
Email:
Emergency Contact Information:
Name:
Relation:
Phone Number:
Medical Information:
Primary Care Physician:
Telephone:
Special Needs Diagnosis:
Physical Symptoms:
History of Cardiac Conditions:
History of Seizures:

Injuries:
History of Respiratory Problems:
Medications Taken At This Time and Reasons:
Extreme Sensitivities: (Smells, Sounds, Touch Etc.)
Developmental Delays: (Motor, Speech, Cognitive, Other)
History of Physical Activity: (Sports etc.)
Amount of Daily Physical Activity:
Behavioral History:
Behavioral Patterns: (Self-Stimulation, Aggressive, Fearful, Anxious, Resistant to Touch
Etc.)
Behavior With Other Children:
Behavior With Adults:

Able to Follow Instructions: (Circle)

Verbally

Visually

Demonstration

Other\_\_\_\_\_

Please consult your physician prior to child's participation in yoga classes.

To my best knowledge, my child is in good health and is able to participate in yoga class:

(Circle) Yes/No

0

I give the yoga teacher permission to touch and adjust my child in the postures.

Signature of Parent or Guardian:	
Print Name of Parent or Guardian:	
Print Name of Student:	
Date:	