

YOGA AND DANCE: EFFECTS OF YOGIC PRACTICE ON PRE-PROFESSIONAL DANCE

TRAINING

by

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Yoga and Dance: Effects of Yogic Practice on Pre-Professional Dance Training

The time has come, and again it is Monday morning. As a junior in the University dance program, you waltz into the studios before class to find your classmates quietly warming up with tennis balls, foam rollers, and thera-bands. As usual, you assume position in the corner spot at the ballet barre for class. Because no one has really helped you create a beneficial and functional warm up routine for technique class, you mindlessly stretch your calves, do some leg swings and hold a short plank. Shortly after, the professor walks in and starts class.

Not halfway into the combination you get the cue to ‘breath with your plié; you look stiff!’ You huff a casual sign in response; what does it mean to breath ‘with my plié’? Later in class you are told that your releves lack balance because you’re sitting in your supporting hip. It must be impossible to be sitting in the supporting hip if you’re standing up, right? How does that hip translate to finding balance in your ankle?

After years of being that student in my ballet classes, I became exponentially curious what these corrections translated to in my training. How could I figure out how to put a breath in a plié, or stand in my hip instead of sit, or ‘lift’ my arch if I was standing on that leg. These problems continually puzzled me, and were frustrating in my training. Especially relevant to my own training, I wanted to get stronger without over-training to end up with an injury.

Introduction

Dance science is a relatively new field of research, but has priceless value to those aspiring to become professional dancers in the future. As a college student

training to become a professional concert dancer, I wanted to find out the most effective way to use the last few years of my pre-professional training to benefit me most. I had professors who recommended cross training at the gym, physical therapists who recommended yoga, dance mentors who pushed me to look at other fitness training methods like Pilates, Ultra Barre, and Gyrotonics, and then some who claimed that my dancing was sufficient enough to stand alone. With all of the proposed options, there was no way of knowing if any of these options were actually going to effect my dancing in a positive way. Modern dance science research has been looking at whether or not dancers should cross train to see maximum growth and strength in performing, auditioning, and technique training. After looking into literature and studies that were already published, countless professional dancers do incorporate some kind of fitness component in addition to their dancing. Of all the above methods mentioned, yoga classes were simple, realistic, and functional enough to benefit dancers of any background and training.

Is it beneficial for pre-professional dancers to cross train to achieve maximum fitness benefits that directly translate to dance abilities? More so, how can a regular yoga practice affect the dance training of a pre-professional level dancer?

Beyond literature review and fundamental yoga technique research, I decided to ask a few of my peers to incorporate a regular yoga practice into their training and journal about it. Using a local yoga studio, Purple Blossom Yoga, three dancers attended different Ashtanga classes and reflect about the experience. I have included some of the journaling prompts as an addendum for reference. This period

lasted for fifteen weeks, September through November. With those journals I was able to compare how my own yoga practice and the university-level dancers that I danced with matched up to the literature I was reading.

Anecdotal Research Subjects

Julia Shockley was my 'Dancer 1', a senior at East Carolina University's School of Theatre and Dance. She is a naturally long and limber female dancer primarily trained in classical ballet technique, but most interested in modern dancing. In this journaling period, Julia used her yoga practice as a medium for relaxation and release. When asked if she set an intention for her practice, she had some days where her intention was exactly that- restoration and release. When asked about her experience, Julia mentioned how much she benefited from the integration of breath in her yoga practice.

Sarah Kleinke was my 'Dancer 2', a junior at East Carolina University's School of Theatre and Dance. Sarah is very athletic and consistently strong throughout her body. She is hyperextended in her legs, tight in her hips, and has hypermobile ankles. Sarah Kleinke has strong technique in both modern and jazz. Sarah was surprised at her body's level of discomfort occurring in more yoga Poses than she initially expected. Reflecting her practice, some of the asana put strains in her elbow and hip joints because she felt there was muscular weakness within the stabilization muscles of those areas. Because the duration of the observed yoga practice was only September through November, the progression was minimal. Similar to Julia's experience, Sarah Kleinke felt that the yoga practice helped her to consciously think about involving her breath with the movement. Consequently, Sarah expressed how

that relaxed her muscles and helped her to feel the sensations at a deeper level in her body. After reading her journaling, I do feel that if Sarah continued to invest in her yoga practice, she would be able to expand on her current knowledge and see some changes in her dancing.

Lauren Pittman was my 'Dancer 3', a sophomore at East Carolina University's School of Theatre and Dance. Lauren had very little initial experience with yoga, but was involved in a regular cross training routine at the student recreation center on campus. One of her main concerns starting yoga involved tightness in her hips and shoulders that may inhibit her range of movement and comfort level through some of the postures. One of the things that Lauren touched on in her journals was how enjoyable and refreshing it was for her to engage her body without strain or tension. In classes where she was given time to free flow through asanas felt good on her body and allowed her to connect her mind and body as one entity. I thought that this was interesting to hear from one of the participants instead of just reading about it in the literature. Following many of the classes that Lauren took, she mentioned how relaxed she was and how different the physical sensations started to feel as she became more invested in her practice.

Of the three, Lauren made her yoga practice and journal reflections part of her regular week. Therefore, I saw a lot of parallels with her journaling to the research studies that I read about in literature. Not to make Dancer 1 or Dancer 2's journal entries invalid, however, the regularity of Dancer 3's practice made her journals more consistent.

Cross Training

The rigorous demands of professional dancers require training in three focuses: technique classes, somatics, and conditioning (Franklin vii; Rafferty 45; Welsh 9) for maximum strength in performance, auditions, and technique proficiency (Haas 169; Mistiaen 381).

Technique classes serve as the intellectual vehicle, or the teacher. This is the place where dancers should be learning the steps and vocabulary, finding clarity in the fundamentals, and developing skills to execute the different combinations of steps. Flexibility, alignment, and coordination are part of the focus in class as well (Rafferty 45). Although the actual movement may differ from one class to another, there is usually a part of class where dancers must work the strength and coordination to lift the legs, fondu and developpe for example. Along those same lines, there is usually time set aside to stretch and work on flexibility. With each new combination of steps in the exercises, the mental skills involved to learn are also practiced. In just a few minutes, the instructor presents the exercise that coordinates the arms, legs, and head together with certain counts or timing. Dancers must regularly practice teaching the brain to quickly learn phrases of movement so that strengthening technique is the priority, as opposed to remembering the steps (Bronner 64).

The body's total experience is the direct translation of somatic studies; the Greek word "soma" translates as "the body's wholeness" (Batson 1; Bauer "History..."; Eddy 6; Frank np.). Somatic theory looks at the relationship the brain makes with the body (Linden 2). Researchers have grouped the bodywork

approaches in somatics together as 'receptive somatics' (Batson 1; Eddy 7), and then awareness and self-guided movements summarize the 'active approach' (Batson 1; Eddy 7). For the purposes of this paper, the active somatic studies are most relevant. When the brain is able to map the sensations and activities that happen in the body and then make internal connections in the brain, the whole physical self has learned new information in relationship to that movement (Bauer "What is..."; Eddy 6). Due to the focus and specificity of this particular writing, there is not time to discuss somatic theory in detail. However, relevant to the dancers who are currently training, somatic research explains the novelty and repetition as valuable bodily sensations (Batson 1). Novelty, making new physical mind-body connections, is the path for growth when repetition is allowed (Batson 2). The movement patterns and sensations create strength of that action, similar to the concept of muscle memory.

Muscle memory describes the learning process when a repetitively performed action can eventually be executed with less and less conscious thought (Hassanpoor 1). When a new motor skill is learned, the brain has to consciously coordinate the muscles to make that action happen correctly. If that movement is frequently repeated, the muscles start to learn the pattern (Hassanpoor 1); the amount of muscular energy and thought involved decreases over time. Eventually, the learned action can be executed almost absent-mindedly and with minimal effort. Take a toddler learning to walk for an example. First, he has to learn how to crawl and stand before progressing into a walk. Learning the motor skill of continuous walking is the process, but repeated attempts are the only way to teach the muscles

so that the legs will eventually walk without consciously thinking about it. In relationship to dancing, if bad habits become part of dance training, then relearning the correct alignment is the only way for increased strength and growth (Franklin 1). Therefore, increasing the strength in bad habits will never translate to more functional dancing.

Conditioning, also referred to as cross training, is the third component for intensive dance training. Tanaka categorizes any exercise or routine worked on outside of the dance studios as cross training (Bronner 64; Kline 24; Tanaka 331). Specific to dancers, conditioning should improve performance ability, target overall fitness, and enhance physique (Franklin 3). Corbin uses the term 'fitness' when referencing the overall quality of life as well as the risk of illness (Corbin 2). Notice that the way fitness has been defined involves the entire body. Franklin sums it up with his statement, "Dance conditioning needs to achieve a highly balanced sense of balance, timing, rhythm, and orientation in space, as well as a measure of cardio fitness," (Bronner 64; Franklin 3; Haas 170).




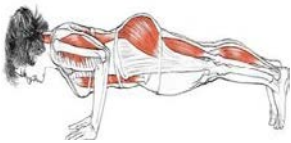


Health-related fitness relates to body composition, cardiovascular strength, flexibility, muscular strength and endurance (Corbin 2). Contrary to popular belief, the cardiovascular endurance required to perform at a professional level is only half of what dance conditioning is about. Dancers must also work to find muscular balance in the body. Training in dance classes that repetitively work specific groups of muscles create an imbalance in the muscle groups that can increase the risk of injury as time goes on (Bronner 64; Lee np.; Quinlan 170; Welsh 78).

Once the dancer reaches a professional-level of technique, physical conditioning can be the path to continue gaining strength, stamina, and efficiency. Here lies the priceless question: which ways of training are the most beneficial for aspiring professional dancers to pursue?

Balancing different muscle groups, injury prevention, and increased aerobic stamina are all reasons for dancers to cross train (Rafferty 45). In a well-know dance blog, *The Dance Training Project*, dancers posted testimonials about their own gym workouts while incorporating a yoga practice. The benefits of these disciplines combined provides priceless value to their individual training (Mistiaen 381).

Considering the foundation of information discussed above, the intention of this paper is not to analyze every aspect of cross training. It would be impossible to address the totality of hatha yoga in this single paper. Therefore, Vinyasa yoga flows are explained to serve as the vehicle to show dancers how yoga can be incorporated into regular dance conditioning. The casual overall language and style is intentionally chosen to benefit the intended audience with optimized clarity. The specificity of this writing will give aspiring dancers applicable knowledge to educate the mind and train the body through yoga practice.

Studying dance does not usually include a desk, textbook, or exam; dance supplies are simply active wear, shoes and studio space. However, educating dancers on the anatomy of the body can directly affect how they approach training. Shell said it precisely in her book *The Dancer as Athlete*, "The best dancers have an integral combination of two talents: knowledge of what is to be expressed and the physical and mental tools to accomplish the expression" (Shell 123).

Figure 1.0 <i>(Reference)</i>	Name of Pose	Familiar References for Dancers	Targeted Parts of the Body
Figure 1.1 <i>(1)</i> 	Mountain Pose, <i>Tadasana</i>	Active, neutral parallel; Standing anatomical position	Triad of the foot
Figure 1.2 <i>(2)</i> 	Forward Fold, <i>Uttasana</i>	Standing (Parallel) hamstring stretch	Lengthening and stretching in the back of the legs and muscles of the spine
Figure 1.3 <i>(3)</i> 	Half Fold, <i>Ardha Uttasana</i>	Altered hamstring stretch	Abdominal support and extra length in the muscles in the back of the legs
Figure 1.4 <i>(4)</i> 	Plank Pose, <i>Chaturanga Dandasana</i>	Plank / Triceps push up	Full-body engagement with proper alignment
Figure 1.5 	Upward-Facing Dog Pose, <i>Urdhva Mukha Svanasana</i>	Cobra / Abdominal stretch	Support in the neck, length in the hips, support from the abdominals protecting the low back
Figure 1.6 <i>(6)</i> 	Downward-Facing Dog pose, <i>Adho Mukha Svanasana</i>	Calf stretch	Length in the back of the legs, support in the shoulder girdle

1 Long, Ray. Anatomy of a Pose: Tadasana. April 2011.

2 Ellis, Sharon. Uttanasana. 2012.

3 Woodard, Stephanie. Ardha Uttanasana (Half Standing Forward Bend). Feb 2012.

4 Unknown artist. Asana Misalignment, Chaturanga. 17 March 2014.

6 Long, Ray. Adho Mukha Svanasana: Downward Facing Dog Pose Exploration. 03 March 2011.

Yoga Practice

The structure of yoga can be divided into two groups based on the practice's focus being either internal or external. In each of the two groups there are four limbs. Vinyasa flow yoga uses two of the external limbs, asana and pranayama, or posture and breath (Santillano #). The totality of the flow engages specific breathing patterns and functions to find balance; balance of strength and flexibility, and balance of focus, activation, and surrender (Mitchell). After collecting the journal entries from my subjects, I organized the concepts that directly transferred from their yoga into dancing: weight distribution, breath support, stretching, hyperextension discomfort, and core integration.

For the purposes of having a general structure, let's use the Sun Salutation flow. Each asana, or posture, in the flow is mapped out in Figure 1.0 below for understanding. The actions and breakdown help to explain the purpose of each pose, however, be careful not to overlook the importance of the overall flow.

I want to briefly describe the Sun Salutation and then discuss some of the key concepts that are rooted in the flow. Begin with Mountain pose; take a swan dive to a Forward Fold; extend to Half Fold; step the feet back to a Plank pose and lower the body by bending the elbows; lift the chest to Up-dog; push back onto the hands and feet into a Down-dog; step or hop the feet between the hands into a Forward Fold; flow through the Half Fold, and then raise back up to Mountain pose.

Some of the dancers who recorded their yoga experiences particularly liked classes that began standing as opposed to a floor sequence; this may be true because it reflects the structure of a traditional dance technique class. Dancers 1 and 3

avored the nature of Mountain pose because it allowed them the time to breathe and find neutral without unnecessary tension.

An important technique in yoga is the triad of the foot, or “3 points of contact”. These three points are the heel, first toe joint, and pinky toe joint, also known as the calcaneal tuberosity, first metatarsal, and fifth metatarsal (Kaminoff). By the way that the bones of the feet are organized, focusing on these three places naturally distributes the weight of the body in a balanced fashion. Proper weight distribution allows support in the arch and set up proper alignment in the body from the feet, ankles, shins and knees. From the start of the sequence, the three points of contact in the foot can help establish foundational stability and balance. Standing poses also restore energy through the feet (Kaminoff). At this point in the flow balancing on two feet may seem like a simple task. The strength in the muscle memory of the feet will be useful when more complicated balances, poses with a wide base or one footed balances, are seen later on. This imagery can be used to directly translate into dance training.

Because Mountain pose’s objective is to establish neutrality in the body, awareness in the breath while standing upright will prepare the body to find that breath in folds and twists using the pelvis, ribcage, spine, shoulders, arms and legs. In my own experiences, I take extra breaths in *Tadasana* to find my activation, relaxation, focus, and to set my intension. After that I can begin my practice without tension and with minimal effort.

A trademark of yoga is the integration of breath (Brungard 75; Kiecolt-Glaser 114). While the specific asana may indicate a simple exhale or inhale, there is

intention to each breath. The breath is used to manipulate the mood and physical energy in the body (Yogini np.). The moving breath creates pressure through the abdominal and thoracic cavities that protects the spine during slow flexion and extension movements of the Vinyasas (Kaminoff, Mitchell). One breathing technique is the Ujjayi breath.

The Ujjayi breath is used for relaxation, mental clarity, and focus, self-awareness, stillness of the mind, and energizing the body (Santillano, Mitchell, Palkhivala “Conquering..”; Palkhivala “Teaching...”). The active breath creates a physical heat throughout the body as well (Mitchell). Beginning with a slow inhale, the Ujjayi initiates an exhale slowly from the back of the throat, creating a soft, hissing sound (Palkhivala “Conquering...”). The continuous in and out of air through the nose remains a constant reminder to link the movement with the breath in the body (Mitchell).

The set yoga sequence integrated with breathing can be a formal way to think about incorporating breath into dancing and movement phrases. Many pre-professional level dancers do struggle with understanding how to integrate the two for efficiency. Look at the places in the yoga sequence where inhales or exhales happen and notice if that place is an action, a transition, a release, or a stretch so that it mimics the muscle memory of dance movement patterns as well. As we discussed earlier with muscle memory, using a regular yoga practice as the tool to integrate movement with breathing patterns can be a very functional way to start incorporating those patterns with dancing.

As aspiring professional dancers are my audience, the sun salutation flow can also function as a warm up. Franklin is very clear when describing a warm-up for dancers. Before starting intense physical movement, the heart rate, breath, and temperature in the muscles should be increased through full body movements. With the increased motion, the joints become lubricated and increase mobility (Franklin 9). Moving through the flow the first time should have an intention to feel sensations in the body and notice the constant inhale and exhale with breath. Deep belly breaths allow deep muscles to release more easily. The folds in the salutation target lengthening and stretching, but gravity should be the sole force at work so that there is still ease within the body. At the start of my study, the dancers had a hard time understanding that the legs should still be active in the fold even though the muscles in the back body are being stretched. Many dancers with an anterior tilt in the pelvis will over recruit the gluteus muscles, quadriceps, and hip flexors. I am one of those dancers. Fortunately, the Forward Fold is a pose that allows all of these muscles to release and stretch. Make sure to take advantage of these moments.

A common yogi term, 'walking the dog' can be cued during the first few flows through Downward-Facing Dog pose. Walking the dog allows the dancer to bend one knee and lengthen the other. It allows for a more concentrated stretch in the calves and Achilles. When the joints feel more mobile and warm, extending the knees will stretch the back of the legs with more ease.

The Forward Fold, Seated Forward Fold and Wide-stance Forward Fold target the same muscle groups but to different intensities. When the stretch becomes uncomfortable, the natural reaction of the body is to recruit powerful

superficial muscles in order to pull out of the stretch. Engaging extra muscle groups in this fashion can create harmful muscle memory patterns, tightness, fatigue, or lead to injury. A common reaction in Wide-Stance Forward Bend, *Prasarita Padotanasana*, is to grip the gluteal muscles. Very similar to Triangle pose, dancers who are hyperextended in the knees must be cautioned that Wide-Stance Forward Bend is another pose that requires extra attention. Because of the deep flexion in the hips, imagining the calves pushing forward in space may help relieve some of the pressure in the knees.

Intense Side Stretch, *Parsvottanasana*, can be practiced to increase the stretch in the back of the legs. See figure 2.1. Due to the placement of the feet, the hamstrings of the front leg are deeply stretched while the gastrocnemius and soleus are deeply stretched in the back leg. In comparison to *Uttanasana*, the lengthening in the legs is more accessible in the Intense Side Stretch because less spinal flexion is required (Kaminoff).

Yogi's use the term 'micro-bend' to refer to the extension that a joint can have without sitting into the hyperextension, therefore, recruiting a small bend. Those who are hyperextended in the knees or elbows may experience discomfort and weakness in some weight bearing steps in dance class along with common yoga poses. In a fold or the back leg in Triangle pose, it is easy to hyperextend the knees.



Figure 2.1
Intense Side Stretch, Parsvottanasana
Long, Ray. Parsvottanasana: Intense Side-Stretch
Pose. 31 March 2011.

This extremity weakens the muscles around the joint and may create pain. Dancer 2 recorded a discomfort in the back of her knees while in Triangle Pose. I experience these same pains when I lose focus in my legs and sit into my hyperextended knee joints. Incorporating the micro bend concept here can alleviate that pain and gradually create strength in that joint. Similarly, Dancer 1 experienced discomfort in her elbows and shoulders during *Chaturanga Dandasana*. This is very common. Allowing a micro bend in the elbows will help engage the right muscles, build strength, and get rid of that discomfort over time.

Poses For Strength

See figure 1.0 for Plank Pose, figure 1.4. Just like a standard fitness position, the maximum benefits can only be reached if the position is correct. Be sure the hands are directly under the shoulders; fingers are spread and actively pressing down through the floor while the shoulders are rolled back and open. The placement of the hands in the plank position is very relevant when trying to access the muscles in the upper body, because the proper distribution of weight can alleviate unnecessary pressure in the wrists. The toes are tucked, and the abdominals are supporting a flat, neutral spine. The head and neck should be lifted and supported and aligned with the spine as well. In order to properly engage the arms, the triceps should spin back so the biceps are forward, and with a micro-bend in the elbows. The heels should push back, the quadriceps and kneecaps lift and the adductors engage. Plank Pose, when used correctly, integrates strength in the body together as one entity (Carpenter).

With control and stabilization as the focus, be careful that flowing through Chaturanga does not allow weak muscles to compensate the alignment for range of motion; the body should remain in a flat plank. Working triceps push-ups will help condition and build strength in the latissimus dorsi. Because they are located along the back and side of the body, the 'lats' attach to the pelvis, lower and mid back, and inside of the upper arm. Interestingly enough, the anatomical placement of the latissimus dorsi allow them to integrate the upper and lower body because of the connection points. The 'lats' internally rotate and adduct in the shoulder joint, which allow the upper arm to hug the sides of the body without tensing and lifting the shoulders.

During my own observations, each of the three dancers noticed weakness in their flow through *Chaturanga Dandasana* because those muscles were not regularly conditioned. Apart from port de bras, sometimes the arms are forgotten about when the majority of technique classes concentrate on activity in the legs. Modern dancers should consider the strength of their alignment through the arms and back when approaching inversions in dance classes. Using yoga poses to properly strengthen these muscle groups will most definitely affect how successful inversions can be.

Another strengthening yoga pose is Upward-Facing Dog pose, *Urdhva Mukha Svanasana*. See figure 1.5. The stagnant position of Upward-Facing Dog Pose is similar to an arabesque. Dancers who have a flexible spine and long hip muscles commonly misuse that range of motion and do not properly learn to engage the abdominals for support. I noticed in my own practice that I relaxed my abdominals

and splayed my rib cage while in the Upward-Facing and Downward-Facing Dog. When the abdominals disengage in spinal extension, the lumbar spine becomes especially vulnerable to unnecessary pressure. Increasing the height of an arabesque must involve flexibility in the back as well as flexibility in the front of the hips. Using the Upward-Facing Dog pose to strengthen the core muscles will also strengthen the entire arabesque. Similar to the Forward Fold, the Upward-Facing Dog Pose should be at ease while lengthening.

A series of poses use inward rotation of one leg paired with outward rotation in the other to open the hips and strengthen rotation: Triangle pose, Extended Side Angle pose, Warrior I and Warrior II. The opposition in the legs helps release the hips and allow for greater mobility. Just like in dance technique, each individual has to find the delicate balance of inward and outward rotation that allows for space, balance and strength in the hips. These poses also engage the abductors of the externally rotated leg and the adductors of the internally rotated leg.

Related to dance concepts, dancers can use Triangle, or any of the above poses to better understand how rotation roots from the hips. When the knees bend, the greater trochanter has more motion in the ball and socket joint of the hip. With that said, engaging the abductors during flexion allows the pli   to be more than a bending and straightening, but an opening motion.

Therefore, flowing in and out of Triangle pose and Extended Side Angle pose can help the hips learn how to properly approach external rotation anatomically. If the abductors in the front leg are not strong, the external rotation may be sacrificed when trying to find balance and the knee of the front leg will want to rock toward

the centerline of the body instead of floating over the center of the foot on the ground. This alignment should not be sacrificed for deeper hip and knee flexion.

The instructor cued the rib cage to relax down and integrate with the lumbar spine for Dancer 3 during her flow. She was not ignoring her abdominals, but did not understand how to connect her entire front-body muscles together. Many dancers struggle with the relationship that the abdominals, shoulders, ribcage, and pelvis all share. Learning what it feels like to integrate the ribcage with the pelvis while still relaxing the shoulders down and back is especially valuable when approaching ballet technique, carriage of the arms, modern contractions, etc. The shift from Downward-Facing Dog to Triangle Pose to Extended Side Angle Pose is an excellent way to work that integration. Transitioning into Warrior II pose in a controlled way will also work that core integration.

Practicality

While everything prior aims to define and explain the theory behind the practice, the concept of specificity supports the transferability to dance training. Balance, strength, mobility, stability, and breath support are all components of the Vinyasa flow that directly relate to dancing.

Dancers usually have one area of the body that is weak, flexible, strong, or in control. Nancy Wozny's *Cross Training for Technique*, published in 2009's *Pointe Magazine* emphasizes the importance of identifying these kinds of weaknesses in the body to prevent injury (Lee np.; Rafferty 45; Wozny np.; Quinlan 170; Filipa 165). Using certain yoga Poses to balance strength and flexibility will positively

affect a dancer's performance ability. Strengthening the muscles benefits the bones as well by providing stability and protection to the joints (Bronner 64).

Dancers who decide to integrate yoga as a part of dance training should approach the practice differently from gym workouts or dance classes. The Poses should be approached slowly and with careful attention to detail, like learning a new dance vocabulary or style because the muscles do not have the strength in this specific technique yet. Welsh defines adaptation as the action of working muscles regularly for increased strength to overcome the physical challenges (Welsh). If the muscles are not yet strong enough to handle to present challenge, they tend to compensate something else in an effort to be successful. More than not, those compensations create bad habits and injury. Tom Welsh presents cautionary advise regarding the risks of overtraining in *Conditioning for Dancers*. He labels fatigue as a common risk of injury (Murgia 92; Welsh). When the body comes to a place of physical exhaustion, the muscles cannot respond with the precision, power, and speed that it is normally capable of.

Related to adaptation, reversibility supports Sally Fit's cliché, "use it or lose it," (Welsh). Conditioned muscles will lose strength once they are no longer regularly activated. Therefore, a regular yoga practice, in addition to technique classes and rehearsals, would be the best structure for training.

Conclusion

Subjectivity of Dance Research

While many dance therapists recommend an allotted amount of training, the dancer's individual judgment call is the best recommendation. Even though dance

science research is developing, it is still just collected data. Dancing is a performance art that is subjective and very personal, where research is a science that analyzes subject matter in isolation, or under specific conditions. Dance and dance training will never truly be a comprehensive science, however, the research is a valuable tool for education.

In my personal study using three of my peers and my own yoga practice, I was able to see how the literature review could be physicalized in our bodies. I understand that in a short time period and by only using four students the recorded journals should only be used as observations. However, this small amount of information is incredibly valuable to me as the curious mind, but also to other aspiring dancers because of how practical this study really is. With that said, I am glad that I could use their journaling statements to conclude some of the overall concepts.

In concluding everything that I observed in addition to the formal research I read about, I was able to merely scratch the surface of my initial question:

Is it beneficial for pre-professional dancers to cross train to achieve maximum fitness benefits that directly translate to dance abilities? More so, how can a regular yoga practice affect the dance training of a pre-professional level dancer?

My compiled research was able to support the statement that a regular yoga practice integrated with dance technique classes and rehearsals were a beneficial way for aspiring professional dancers to train. The use of breath, mid-body involvement, correct alignment, and strength with stabilization were all focus' of yoga as well as fundamentals in dance. It must make sense that the two activities compliment each other. I cannot say without a doubt that one affects and/or

benefits the other, specifically yoga to dancing, because more studies need to be done for more consistent findings. However, the current research does have confidence in the relationship of yoga and dance training thus far.

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Name: _____ Date: _____

M T W R F S Su

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Before the class

Stress level:

Carefree 1 2 3 4 5 6 7 8 9 10 stressed

Focus:

Not 1 2 3 4 5 6 7 8 9 10 engaged

Body Condition:

Ready 1 2 3 4 5 6 7 8 9 10 broken

Attitude: _____

The Class

Was there anything new you learned? _____

How did it feel on your body? _____

What did you like most about the class? _____

What did you like least about the class? _____

After the Class

Stress level:

Carefree 1 2 3 4 5 6 7 8 9 10 stressed

Focus:

Not 1 2 3 4 5 6 7 8 9 10 engaged

Body Condition:

Ready 1 2 3 4 5 6 7 8 9 10 broken

Attitude: _____

Today's focus: breath

Before you start the class, take a moment to set your focus on your breath.

Notice if your breath is at ease, quick, sharp, slow, etc.

Were there times when you forgot to focus in on your breath? Did you notice if that affected your movement quality? Balance, sustainability, focus, posture, ability, etc.

Do you think that the focus of breath in and out of the nose affected your movement in a positive or negative way? Was it hard for you, natural, mindless, habitual?

Do you think that the focus on breath directly or indirectly relates to your dancing? Is this something you can integrate into your dance warm-up, rehearsals, technique classes, performances, auditions, etc. ?
