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The Effects of Yoga Practice on Classroom Management in an Elementary School Setting

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Title Page

The Effects of Yoga Practice on
Classroom Management in an Elementary School Setting

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Submitted in Partial Fulfillment of the Requirements for the Degree

Master of Science in Education

School of Education and Counseling Psychology

Dominican University of California

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Signature Sheet

This thesis, written under the direction of the candidate's thesis advisor and approved by the Chair of the Master's program, has been presented to and accepted by the Faculty of Education in partial fulfillment of the requirements for the degree of Master of Science. The content and research methodologies presented in this work represent the work of the candidate alone.

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Abstract

Traditionally, students in an elementary class are either disengaged or distracted from their classmates. The problem involves behavior and emotional disturbances that are often accelerated by external influences. The purpose of this research is to explore the use of yoga as an approach to reducing stress, increasing self-confidence and reducing negative behavior in a fifth grade class. A review of the literature revealed that students can ultimately improve behavioral management skills when given specific learning tools. Fifth grade students in a suburban elementary school participated in a weekly yoga practice intervention over a 4-week period of time. Students participated in a 60-minute mindful practice which included breathing practice, yoga poses, meditation and relaxation techniques. This is a teacher action research project that involved a mixed methods approach. Quantitative inquiries measured behaviors before and after implementation of the yoga program. Qualitative documentation included teacher notes, student responses to focus group questions and researcher observation. Although no obvious behavioral changes were recorded, results indicated observable changes in strength, balance, and endurance by some students which may explain their increased self-esteem and self-regulation. Noticeable changes in focus, concentration and attention were recorded for a few students. The directing teacher's final comments highlighted students' stronger social connections with peers as they learned breathing techniques and how to use their energy more effectively.

Chapter 1 Introduction

At any one time, there were a handful of students who were either disengaged or distracted from the rest of their classmates and myself, their teacher. My yearlong challenge was to find an approach or strategy that would encourage my students to develop the confidence and self-love that would connect them to their learning. These behavioral and emotional disturbances were often accelerated by external influences, such as improper diet and family trauma. I do not believe my classroom looked very different than most urban public schools; however, I was puzzled and confused about the predominant behaviors that became challenging for me as a first year teacher.

By mid-year, I felt confident enough to introduce Yoga Ed., a program that started at the Accelerated School in Los Angeles and was developed specifically for students. I started small. The first “yoga” classes were challenging because of classroom management and also time constraints. I then began to start each day with reflection time, not unlike *restorative* yoga. I would have students close their eyes and visualize their secret garden. It was during this time that several students would often fall asleep. As I had learned from my Yoga Ed. training, I allowed them to sleep. I would take students through a short narrative and quietly bring them back to the room. I made some mistakes along the way, as it was truly a learning curve for me too. The disruptive students, who probably would benefit the most, were often sent back to their desks to read, as the remaining students found it distracting and unsettling.

Looking back on that year of teaching, I realize I was trying to establish a sense of community where cooperation, trust and kindness would become the cornerstone of our class. In turn, I was hopeful but realistic that these qualities would somehow instill a sense of well-being

within each student. My experience has brought me to this moment when I realize how important classroom management is if one is going to make a difference in each student's life.

Statement of Problem

What is the impact of yoga practice when used as a resource for classroom management? The practicality of exposing students and teachers to a yoga practice is for increased awareness, focus and attention in the classroom setting. The resources and training that impart yoga philosophy and principles to students and academic colleagues, present opportunities that would traditionally be unattainable because of costly classes and memberships to studios. The availability of yoga in the classroom and school community may communicate significant life skills and therefore promote long-term benefits to health, happiness, and well-being.

Purpose Statement

The purpose of this study was to identify the effects of an ongoing yoga practice within the classroom setting. The effects of negative behavior and disruption can be seen when classroom management becomes critical to teaching and learning for the entire classroom community. Certain student populations are often at great disadvantages when only traditional learning styles are offered within a classroom setting. Grade curriculum, gender, economic disparity, and students identified with learning disabilities are among those challenges presented to every directing teacher. Therefore, the consideration of yoga as a method for classroom management was the intention of this study.

Research Question

How does the integration of yoga practice in an elementary classroom support creating an environment that promotes self-confidence and attention to learning and simultaneously

decreases classroom distraction and disruption to enhance the learning process within the classroom community? Yoga practice, a mindfulness exercise that promotes physical and emotional well-being, may create a cooperative environment or situation where internal distractions due to different learning styles and external disruption such as negative behaviors are minimized.

Theoretical Rationale

At first glance, this research may seem to corroborate with many developmental theories; psychoanalytic, psychosocial and cognitive. Erickson's psychosocial theory presents eight stages of development from infancy through late adulthood. With each stage, Erickson describes the developmental period that presents itself and the struggle that may incur. Erickson's fourth stage, Industry versus inferiority, reflects on the child's conflict with eagerness to learn and feelings of failure. He emphasizes how critical a teacher's role is and how persuasive a teacher should be with regards to instilling a sense of confidence and accomplishment during this time of a child's development (Santrock, 2003). The implementation of yoga in the classroom may provide young students with a sense of wonderment and curiosity, which may lead to developing their sense of self-confidence and self-control.

Another motivating principle is Gardner's Theory of Multiple Intelligences. Human ability has been divided into eight groups: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal and naturalist. Fundamentally, every person has some degree of each intelligence and with the proper educational instruction, can be guided to enhance those intelligences that may be underdeveloped (Armstrong & Association for Supervision and Curriculum Development, 2000). Yoga practice may enrich each of the eight intelligences with specific movement, thought, and practice. The most obvious intelligence is bodily-kinesthetic

where strength, balance and flexibility are key in developing physical goals. Spatial, linguistic and musical intelligence can grow through visualization, storytelling and relaxation melodies. Yoga enhances interpersonal intelligence through community practice and intrapersonal intelligence through a better understanding of *self*. The naturalist intelligence is heightened when the environment becomes important to the practice and nature becomes part of the surroundings. Logical-mathematical intelligence is probably the least obvious of intelligences to be deepened by yoga. However, certain *asana* or physical practices, develop patterns of movement that are repetitive and therefore representative of the more abstract part of logical-mathematical intelligence.

Assumptions

There is a missing part to elementary school curriculum. There is a critical need for students and teachers alike to feel inspired, creative, refreshed and happy. Although some personal needs may differ, our basic need for love and acceptance are universal. Past observation and personal experience show that yoga practice may have a positive influence on character. To incorporate this discipline within our learning communities may offer students and teachers opportunities for a more pleasing and effective learning environment. My expectation for success comes with challenges. Academic focus has traditionally been mired in evaluation, testing and assessment. Contrary to these objectives, yoga practice will require time away from the discipline of academic rigor. It will require school or district consent along with administrative and teacher buy-in. The benefits of a structured classroom yoga practice may only then prove the importance of yoga for both students and teachers.

Background and Need

Recent research using urban elementary school settings, confirms the need for yoga among youth subject to environmental, physical and mental health stress. Harper reaffirms: “The places that are most challenging to teach are also the places where children embrace (and need) Yoga practice the most” (Harper, 2010, p. 99).

According to Harper (2010), environmental stress may include poverty, neighborhood violence and unhealthy living conditions which often lead to fears of health and personal safety. The increase in childhood obesity, diabetes and asthma, particularly among minority youth, reflect the presence of poor nutrition and lack of exercise. Finally, attention deficit disorder (ADD) and attention deficit hyperactivity disorder (ADHD), are becoming a prevalent diagnosis for many school-age children. These anxiety driven conditions foster poor concentration and lack of self-control. They prevent students from being truly present to their learning environment.

Perhaps just as important, Harper (2010) notes that schools and school districts may also add to student anxiety. The emphasis on accountability and testing puts added pressure on students to perform without having the necessary tools and resources to support their achievement. “In Yoga classes, learning takes place in a dynamic, supportive, and encouraging environment where students are not hampered by the pressures of testing or the fear of failure.” (Harper, 2010, p. 101).

Different learning styles can be accessed and academic skills can be reinforced using music, movement and storytelling. This model incorporates both physical and mindful activities that nurture independence and productivity while supporting a sense of community (Harper, 2010).

Little Flower Yoga developed a program for the urban classroom and was successful in implementing a yoga practice for students in schools throughout New York's five boroughs, including Central and East Harlem, Bushwick and the South Bronx. A relatively cost-effective resource, the yoga program "... has an added benefit of being relatively easy to implement, at a low cost and in a small space" (Harper, 2010, p. 100).

Teachers become an integral part of the yoga practice by creating theme-based lesson plans. *Asana* (postures), *pranayama* (breathing), Yoga games, and *savasana* (corpse pose or relaxation), are always adapted according to the needs of the student population. During each practice, attention is given to repetition, which furthers understanding and to new material, which inspires learning (Harper, 2010). Despite every best intention of keeping students engaged, there will be those students who exhibit behavioral problems: "It is important to remember that negative behavior is meeting a need for the child, and you cannot reasonably expect him or her to change the behavior unless you offer an alternative way of meeting the need" (Harper, 2010, p. 103).

Summary

Teachers, resources, and intentions are there to create a nurturing, fulfilling and dynamic addition to each school day in every school. Few would argue that we need more testing and assessment. More than ever, students of today are more vulnerable and subject to the effects of poverty, violence, poor nutrition, childhood disease and learning disabilities which in turn cause unfavorable classroom behavior. This becomes a perfect recipe for disappointment and failure for both student, teacher and family. Student achievement and success can triumph if we are able to offer an environment that promotes less stress and anxiety and encourages more self-confidence and love of self.

Chapter 2 Review of the Literature

Introduction

This section is an examination of the research literature on effect of yoga practice on classroom management. Information was gathered from academic library searches using online resources. Research information is organized in the following categories: Reducing Stress and Anxiety, Classroom Management and Yoga Connection, Brain Based Research, Yoga's Mind-Body Connection, Promoting Yoga Instruction in the Classroom, Yoga Benefits Students with Special Needs, Yoga and Self-Objectification, Incarcerated and High-Risk Youth and Interview with an Expert.

Brooks (2007) explores yoga's effects on reducing anxiety among elementary school-aged students. The author's review of literature includes coping strategies for children, intervention techniques and the benefits of yoga. Children, like adults, use different strategies depending on the degree of stress. Problem focused strategies are used primarily in academic settings while emotion focused strategies are used in more subjective situations (Brooks, 2007). While younger children rely primarily on problem focused strategies for both academic and personal stress, older children are able to access their emotion focused strategies according to the type of anxiety or stress (Brooks, 2007). Relaxation methods have been developed and used among student populations to enhance overall performance and well-being. Short interventions can produce successful coping skills (Brooks, 2007). Brooks' research indicates a strong correlation between stress reduction and yoga movement, breathing and meditation. In addition, limited studies show overall improvement for students with symptoms of Attention Deficit Hyperactivity Disorder

(ADHD). Inattentiveness, impulsive and resistant behaviors were successfully treated with yoga practice.

This action research study assessed the anxiety levels of fifteen fourth and fifth grade students using the *State-Trait Anxiety Inventory* before and after the yoga intervention period, which lasted for 6 weeks. Although results were primarily based on quantitative research, observations were performed and reported by classroom teachers during the 6-week period. Overall, there was no significant change in the trait anxiety scores. However, two participants who had been diagnosed with ADHD, showed a measurable reduction in anxiety. Classroom teachers noted a calmer and more focused response to reading and math. A quicker reaction time, a decrease in tardiness and a general refocus of classroom business generated a more positive classroom environment (Brooks, 2007). Classroom management in general improved, but the quantitative measurements of the t-tests might show more significant changes if administered before and after an exam or stressful situation. Both assessments were given prior to and following a yoga practice. It is significant, however, to acknowledge the two participants who showed a change in their anxiety level. It may seem minor, but two students can disrupt the equilibrium of even the most organized classroom.

Classroom Management and Yoga Connection

Garrett (2014) considered the practice of classroom management as a primary concern among novice teachers. Her purpose was to name, identify and dismiss some misbeliefs of classroom management, to introduce and examine a new model and to explore the effects of the new model on beliefs, perception and practices of new teachers. The most common misconceptions of classroom management as described by Garrett (2014) are as follows:

Misconception #1: Classroom Management is Synonymous with Discipline

Misconception #2: Effective Classroom Management Results in a Quiet Classroom

Misconception #3: An Effective Classroom Management Plan Relies on Rewards and Punishments

Misconception #4: Engaging Instruction is the Management

Eleven novice teachers were invited to participate in Garrett's proposed model of a successful classroom based on definitions from Evertson & Weinstein and Brophy (as cited in Garrett, 2014). Garrett identified most components of her model as proactive, rather than reactive approaches. Her five key elements consist of four proactive strategies and one prevention and response strategy:

- Creating the physical environment
- Developing rules and routines
- Establishing caring relationships
- Implementing engaging instruction
- Addressing discipline problems

Ten teachers contributed to the theoretical study; one participant opted out of the study. All elementary school teachers were in their second and third year of teaching in both suburban and urban areas. Teachers measured their own success as classroom managers, were interviewed and observed by the author and completed a questionnaire about their beliefs and practices. The results corroborated with Garrett's model of the managed classroom, and emphasized the

importance of engaging all components of her model. Eight of the 10 participants considered developing authentic relationships as the most meaningful approach to having successful classroom management. Although the sample size was small and the results were dependent on self-reported data, the outcome supports theoretical research about encouraging yoga instruction in the classroom and the community.

Brain Based Research

Streeter, Whitfield, Owen, Rein, Karri, Yakhkind, Perlmutter, et al. (2007) considered the effects of two different kinds of physical activity, yoga and walking, and the differences in overall mood, anxiety and brain GABA levels. Earlier research using magnetic resonance spectroscopy (MRS), indicates a significant increase in GABA levels among skilled yoga practitioners following a 60-minute session compared to a second control group following a 60-minute reading session. Supporting research suggests the neurotransmitter, aminobutyric acid (GABA), is responsible for decreasing mood and anxiety disorders as well as epilepsy. Pharmacologic agents are often prescribed to increase the activity of the GABA system and have been successful in raising levels needed to promote positive mood and less anxiety.

The authors take evidence from the previous study much further by comparing net effects of yoga versus walking. A total of 34 subjects were used for this randomized controlled study. Thorough screening was conducted for eligibility using instrumentation to identify behavioral disorders and alcohol consumption. Both yoga (n=19) and walking group subjects (n=15) met 3 times a week for 12 weeks for a total time of 60 minutes. Both mood and anxiety were assessed using the Exercise-Induced Feeling Inventory (EIFI) and the State-Trait Anxiety Inventory (STAI). MRS scans were taken at week 1, week 12 and immediately following the last

intervention. Among yoga subjects, there was an increase in positive EIFI subscales (Positive Engagement, Revitalization and Tranquility) and decrease in the STAI-State score, representing a decrease in anxiety levels. The walking group reported an increase in the negative EIFI subscale (Physical Exhaustion). Thalamic GABA levels increased with positive mood and reduced anxiety within the yoga group. This association may be in response to significant Revitalization and Tranquility scores. Overall analysis indicates a greater need for further study of yoga and the benefits of its renewal and calm effects on brain GABA activity.

Yoga's Mind-Body Connection

Hagen and Nayar (2014), offer a dynamic perspective on a global issue affecting the future of our children. According to Sifferlin and a survey conducted by the American Psychological Association (as cited in Hagen & Nayar, 2014), young adults (18-33 years of age) exhibit more stress than any other living generation. Consequences of living with stress become more apparent when health issues such as insomnia, muscle aches and pains, high blood pressure and weakened immune system lead to more serious and life-threatening illnesses. Children of these young adults, however resilient, learn to internalize stress that is caused by high expectations of family, school and social pressure. In this review, the authors recognize the need to offer yoga as a tool to help children manage stress and develop self-regulation.

The authors emphasize the attraction and distraction of media exposure and use, noting that American children have access to media nearly seven and a half hours per day. These alarming numbers indicate the need to bring balance to young people's physical and mental health. A Kaiser Family Foundation study (as cited in Hagen & Nayar, 2014), discovered that very young children, ages 0-6, are spending as much time with electronics as they are playing outside.

Media addiction, a term used by healthcare professionals, not only raises concerns for dependency issues, obsessive-compulsive and attention disorders, but cyberbullying, and exposure to violence, overt sexual material and other deviant behavior. Concurrently, the authors acknowledge technology as the great resource for information and knowledge, if used within the appropriate context of children's home, school and community life.

The recommendation for yoga as a long-term solution for a healthy mind-body connection, provides children with life-long tools and empowers them to self-regulate, reflect, protect themselves and develop into mindful young adults. The late BKS Iyengar (as cited in Hagen & Nayar, 2014), claims, "If you practice yoga every day with perseverance, you will be able to face the turmoil of life with steadiness and maturity."

Literature overwhelmingly supports yoga as an antidote for stress, self-control, motivation, and sleep. Additional studies show evidence of improved academic performance when students are able to perfect their concentration and focus skills as well as benefits to children with attention disorders and special needs. Khalsa (as cited in Hagen & Nayar, 2014), recommends that yoga for children be a unique and fun practice tailored to their individual needs.

Hagen and Nayer describe how yoga has become a universal enterprise and how teachers, schools and communities have a social responsibility to incorporate this practice into their daily lives. Their recommendations for more extensive inquiry on the effects of children's yoga on mental and physical growth include accessibility of yoga practice in schools and community centers, pre and post-test intervention studies, theoretical framework for self-regulation and public policy pertaining to yoga in schools and training for teachers. The authors also

highlighted many research gaps and the lack of empirical studies to ensure future research will focus on yoga practice and the developmental needs of children.

White (2012) explored mindfulness practice by reducing stress among school-age girls. The assumption that mindful movement is used to reduce perceived stress and increase coping skills among fourth and fifth grade girls while improving their self-esteem and self-control is measured between and within an experimental and control group. The second hypothesis measures the correlation between perceived stress as well as the positive benefits of mindful movement and the frequency and duration of yoga sessions. An overwhelming response to the proposed study includes 190 participants at the starting point of the research. The final group consists of 70 intervention participants and 85 control group participants (n=155). The majority of participants are fifth grade students with a mean age of 9.9 years and all participants are enrolled in schools that share similar demographics. Participants are non-clinical school-age girls, a population without medical or psychological identifiers.

Earlier studies by Robins and Trzesniewcki (as cited in White, 2012), indicate adolescent girls are more likely to experience lower self-esteem than their male counterparts and also sustain more stressful experiences according to Griffith, Dubow and Ippolito (as cited in White, 2012). According to Harter (as cited in White, 2012), children with high self-esteem may have the tools to manage perceived stress whereas Kliewer and Sandler (as cited in White, 2012), claim those with low self-esteem may be more vulnerable to stress. Robins and Trzesniewcki (as cited in White, 2012), also report that self-esteem in school-age children is less consistent than that of adolescents, and may be more amendable to receiving intervention.

The mindfulness practice was adapted from the Mindfulness-Based Stress Reduction created and introduced to adults by Kabat-Zinn (as cited in White, 2012). Its primary focus is an awareness based training which includes meditation and hatha yoga. For research purposes, this study was conducted as a randomized cluster of repeated measures. The 70 intervention participants met once a week for an hour of mindfulness yoga practice over an 8-week period. The program also consisted of 10 minutes of daily homework. Quantitative measurements for both intervention and control groups included The Feel Bad Scale, The Schoolagers' Coping Strategies Inventory, The Global Self-Worth (subscale of the Self-Perception Profile for Children), and The Healthy Self-Regulation (subscale of the Mindful Thinking and Action Scale for Adolescents). These measures were administered before and at the completion of the 8-week program.

Results indicate no significant differences in stress levels and reported self-esteem between the intervention and control groups at baseline and following the 8-week intervention. Within the intervention group, however, there was an increase in reported perceived stress levels and frequency of coping skills used over time. The independent variable, home practice, accounted for the 7% change in perceived stress. Both groups reported an increase in both self-esteem and self-regulation over the 8-week period. It is important to note that both homogeneous groups entered the study with high self-esteem and self-regulation and reported perceived low stress. The study was also implemented at the start of the school year, which could account for the reported increase in self-esteem and self-regulation as participants adapted to school (White, 2012).

The author describes the clear difference between adult and children's developmental stages and therefore somewhat different outcomes of mindfulness practice. It is possible that the practice of

identifying stress increased participant awareness of perceived stress. Further inquiry with smaller and more inclusive populations would provide for individual attention and management of the intervention group. The addition of qualitative measures would offer more feasible and authentic feedback and data. Although few empirical studies with children and mindfulness practice exist, mindful meditation and yoga are tools that school-age children can practice throughout their childhood and well into their adult life (White, 2012).

Promoting Yoga Instruction in the Classroom

Chen and Pauwels (2014) studied the apparent benefit of integrating yoga into the classroom curriculum by implementing Yoga Ed. Tools for Teachers program. The U.S. Department of Health and Human Services and Zimmerman (as cited in Chen & Pauwels, 2014), have recommended school based physical education programs as ideal settings for improving student health by promoting physical activity, which could prove to be an antidote to the alarming obesity epidemic and premature mortality rates among youth. According to Burke (as cited in Chen & Pauwels, 2014), in addition to traditional physical education programs, some educators are using a more holistic approach with mindfulness training to improve student well-being. Yoga has been suggested as the ideal complement to school-based programs, because of its inclusiveness. Rather than a competitive sport, yoga is founded on individual ability, making the exercise accessible to all students, even those with physical limitations. Burke (as cited in Chen & Pauwels, 2014), defines yoga as a mindfulness exercise which increases self-awareness of breath, posture, diet and behavior, influencing the whole person.

A Carol M. White Physical Education Program (PEP) grant was awarded to The Accelerated School (TAS) to provide funding for this research. The 661 student participants were selected

from both public and charter schools in the Western United States and were from mid-to-low socioeconomic status. The Yoga Ed. Tools for Teachers workshop offered a 2-day workshop to 103 classroom and physical education teachers, led by Yoga Ed. certified instructors. Instruction included activities in breathing, postures, yoga games and visualizations for the K-12 classroom. Additional training offered suggestions on how to improve students' physical activity, social responsibility and enhance student relaxation. The workshop also provided teachers with skills to improve student behavior and classroom management. At the conclusion of the training, teachers signed a contract to provide 5-15 minutes of daily yoga-based activities to their students for the school year 2008-2009 and agreed to complete and send a teacher survey questionnaire back to TAS. Students and parents also agreed to complete a like questionnaire.

The triangulation of data provided accuracy for the perceived benefits of the practice. Students and parents completed 18 self-survey questions based on mental, social, and physical well-being and positive behaviors. Teachers completed eight Likert-scale questions and two open-ended questions. These inquiries provided researchers with useful information about any obstacles the teachers may have encountered and their response during implementation of the Yoga Ed. program. Results indicate strong positive benefits of integrating yoga activities and classroom teaching through the Yoga Ed. Tools for Teachers program. Student surveys indicate the most perceived changes were in mental and physical health. Parent surveys show growth in all areas of well-being, but results are less positive than those of students themselves. Teachers evaluated over-all improvement in emotional, mental and physical well-being of their students. The most outstanding results reported in emotional health were an increase in perceived self-confidence, joy and self-esteem. Physical well-being indicated an increase in knowledge of the human body, body posture and eating awareness. Data also concludes that year-long participation in the Yoga

Ed. program resulted in positive behavioral changes. Although this was not a controlled and randomized study, it was the largest research of its kind that included triangulation of data with participants who were primarily Hispanic and African Americans with limited yoga experience. The present study exemplifies the significant effects of yoga when integrated into classroom teaching.

Researchers, Slovacek, Tucker and Pantoja (2003), examined the Yoga Ed. program at The Accelerated School, an inner city school. The Yoga Ed. program was originally founded by Tara Lynda Guber and implemented by Leah Kalish in 2001 (Slovacek, Tucker & Pantoja). Prior to 1980, research on relaxation, meditation, yoga and its usefulness had been scarce and the focus had been on adult subjects. Since that time, a few studies have been conducted with students that explore the relationship between relaxation techniques and their effect on performance and stress levels. One such study conducted by Benson, H. et al (as cited in Slovacek, Tucker & Pantoja, 2003), revealed a positive relationship between a relaxation response curriculum and academic achievement over a 3-year period. The Yoga Ed. curriculum in this study is closely aligned with the relaxation response curriculum (Slovacek, Tucker & Pantoja, 2003). Transcendental Meditation (TM) research has provided scholars with another effective means of reducing anxiety. According to Linden (as cited in Slovacek, Tucker & Pantoja, 2003), third grade students who practiced meditation were found to have less anxiety during testing.

The purpose of this study was to measure the outcome of Yoga Ed. curriculum on elementary and middle school students' attitudes toward self and school, including emotional and physical health, academic performance and attendance. Participants were 405 K-8th grade students and 18 core subject teachers at an inner city charter school. The Yoga Ed. curriculum was used as the

method of study and divided into three developmental grade levels: physical awareness and skills (K-2), mental/emotional awareness and skills (3-5) and self/community/universal awareness (6-8). Quantitative data were collected by 5 yoga teachers at the end of each semester using a rubric for “participation” and “discipline”. A two-page pre-test and post-test questionnaire was completed by students. All core subject teachers completed a questionnaire about the Yoga Ed. program and its effectiveness. Teachers also graded students on participation and discipline at the conclusion of the three semesters. Results indicate a favorable improvement in student self-esteem measured by noticeable levels of participation and behavioral problems with less discipline referrals. Student physical health improved with significant gains on the statewide Physical Fitness Test, scoring higher than average levels within the district primarily in flexibility, upper body strength and aerobic capacity. Although elementary student grade point averages (GPA) were not available, middle school student GPA’s showed a positive relationship in yoga participation grades. Finally, because average daily attendance is very high at 97-98%, there was little correlation between yoga participation and school attendance (Slovacek, Tucker & Pantoja, 2003).

The pre and posttest questionnaires showed little difference in responses to student attitudes towards the Yoga Ed. curriculum (Slovacek, Tucker & Pantoja, 2003). Answers would have been more measurable had there been a Likert scale, instead of the yes/no selection for student response. Also, nearly all students had been taking yoga for two or more years, but the pre-post questionnaire measured change only within the 9-month study (Slovacek, Tucker & Pantoja, 2003).

Data clearly indicates and supports the positive correlation between the Yoga Ed. curriculum and student success. There are limitations to the study because of the multiple variables being measured (Slovacek, Tucker & Pantoja, 2003), but the purpose of the study determined that Yoga Ed. classes improved the overall well-being of its participants.

Harper (2010) examined the value and purpose of yoga therapy in today's urban elementary schools where children are often subject to environmental stress and compromised physical and mental health. Harper's exploration of some of the most poverty-stricken school districts in New York, confirm the challenging conditions that face urban youth and the serious consequences for academic success because they often prevent students from being alert, attentive and focused on learning. According to Wasserstein, Silverman and La Greca (as cited in Harper, 2010), African American children are more likely to suffer from anxiety in response to stress and distractions from their environment where violence and poverty often exist. Police officer presence at some school sites have added additional worry and concern to students while school and district accountability have placed added burden on children where performance is critical to district ratings.

While research with children is more limited than with adults, Slovacek, Tucker and Pantoja (as cited in Harper, 2010), conclude that yoga practice helps students improve academically and physically, and increases positive behavior and attitudes about themselves.

In 2007, Harper, founder of Little Flower Yoga, directed a small qualitative study at one of her program's sites in Harlem, New York. After conducting a ten-week yoga school project, surveys were distributed to students, teachers and parents. Harper's purpose was to identify and measure the acceptance and support of community members who were not yoga practitioners. Students

overwhelmingly favored the classes while teachers and parents found the program to be helpful. The same survey was repeated at two school sites in 2010 with a larger return rate and equally positive response. Harper's purpose is to offer a collaborative program to communities who would otherwise not have the resources to offer children a supportive, available and valuable practice. Creative programs are tailored to fit school requirements but Harper considers classroom management skills an essential part of the yoga instructor training. Compassionate communication with students is essential and she encourages teachers to "Remember that the kids are more important than the yoga practice. Meet their needs in whatever way works best at the time" (Harper, 2010).

Morgan (2011) had a two-fold purpose in designing a harmonious learning environment for her English language learners. The author created a supportive teaching space where each student was respected and valued for their individual language learning styles. Her resolve to create a less anxious and stressful environment with the practice of yoga, promoted a balanced approach to the emotional and physical aspects of learning a new language. Secondly, the author supported different language learning styles by promoting a healthy approach towards self and the community by integrating the physical aspect of yoga, bringing joy and pleasure to English language learners.

The author aligned her graduate program internship in Teaching English to Speakers of Other Languages (TESOL) with her yoga teacher training. Morgan (2011) decided to replicate a similar learning experience she had acquired while attending Italian language classes two years earlier. Twice weekly, the author would participate in isometric stretch classes (taught in Italian), where the language spoken reinforced her new knowledge of the Italian language. She

recognized the strength of this learning style and modeled her lessons on the Total Physical Response (TPR). Research by Cameron; Peck; Richards and Rodgers (as cited in Morgan, 2011), supports the TPR connection between listening, observing and performing the physical actions necessary to strengthen understanding of vocabulary and grammar.

The study participants were young Latina women, all newcomers to the United States and mothers of preschool aged children. English language lessons were guided by the TPR approach, with adaptations. Instead of traditional oral commands, such as “Open the door” and “Close the door”, simple instructions were given to practice yoga poses using different parts of speech, such as “Stand with your arms above your head”. The author would pre-teach key words and also write vocabulary and commands on a flip chart. Learners were also provided with one-page illustrated handouts, complete with vocabulary and instruction for take-home practice. Each lesson would build upon the last, but the goal and objective was to learn the English language in a relaxed and supportive environment.

Concurrently, Morgan taught in a traditional ESL classroom where curriculum and text defined learning. In this learning environment, students appeared to be more anxious, shy and cautious about learning their new language. The traditional TPR approach was used, but the actions were not as meaningful to students as the yoga poses were to the young mothers.

The most effective learning and teaching experience was the harmonious learning environment, where learning became a conscious and joyful experience and teaching a fulfilling vocation. Although the participants in this study were adults, there is strong evidence that the focus and concentration of listening, observing and participating in a yoga practice could be beneficial to

younger language learners as well. Cameron and Shin (as cited in Morgan, 2011), strongly suggest the advantages of using movement to engage young language learners.

Yoga Benefits Students with Special Needs

Koenig and Buckley-Reen (2012), designed research to target the efficacy of a yoga program as a specific intervention for children with autism spectrum disorder (ASD). The incidence of ASD has risen over 600% during the past 20 years as reported by the Centers for Disease Control and Prevention, (as cited in Koenig, Buckley-Reen & Garg, 2012). The staggering figures that 1 in 88 children are diagnosed with ASD, makes this research even more vital. Since multiple interventions are often used by occupational therapists, it becomes difficult to isolate those that are most effective in the classroom. Staying on task, transition time, reaction to change and ability to work independently are but a few of the classroom behaviors that require a calm and focused presence to succeed. Goldberg (as cited in Koenig, Buckley-Reen & Garg, 2012), acknowledges that school-based curriculum rarely offers students the chance to engage and practice the skills needed to achieve this kind of equilibrium.

Krisanaprakornkit, Ngamjarus, Witoonchart, and Piyavhatkul (as cited in Koenig, Buckley-Reen & Garg, 2012), recognize that limited studies and errors in research make it difficult to draw absolute conclusions about yoga intervention among youth. Yoga is being used informally throughout classrooms in the United States as a seemingly valuable resource to control disruptive behavior and achieve academic success. A controlled study by Chan, Cheung, and Sze (as cited in Koenig, Buckley-Reen & Garg, 2012), showed a decrease in withdrawal behavior and attention problems among low-achievers who participated in a yoga intervention program. Additional research by Khalsa, Hickey-Schultz, Cohen, Steiner, and Cope (as cited in Koenig,

Buckley-Reen & Garg, 2012), measured an improvement in the mental health of adolescents who practiced yoga compared to a control group who attended regular physical education classes. Further research by Harrison et al.; Jensen & Kenny; Powell, Gilchrist, and Stapley (as cited in Koenig, Buckley-Reen & Garg, 2012), supports the positive benefits of yoga intervention. However, limits to program design including sample size, absence of a control group and manualized intervention, provide a challenge for conclusive results.

By eliminating the design flaws of previous studies, the authors used a manualized occupational therapy program, Get Ready to Learn. This developmentally appropriate yoga curriculum developed by Anne Buckley-Reen, an occupational therapist, assessed the value of yoga practice and classroom behavior with school-aged children diagnosed with ASD and other disruptive behaviors.

Participants were chosen from eight classrooms in an urban elementary school, serving more than 700 students with autism. The intervention group was comprised of 24 students (19 males, 5 females) with a mean age of 9.7 years. The control group, who followed a typical classroom morning routine, included 22 students (18 males, 4 females) with a mean age of 8.7 years.

Instrumentation included Aberrant Behavior Checklist (ABC) – Community and VABS-11, a parent-based interview. The ABC – Community subscales included Irritability/Agitation/Crying, Lethargy/Social Withdrawal, Stereotypic Behavior, Hyperactivity/Noncompliance, and Inappropriate Speech. The VABS-11 provided insight to student behaviors in other settings and also eliminated the impact on teachers for additional information. The ABC-Community was completed pretest-posttest by both teachers and parents.

Classroom teachers played an active role by participating in the 16-week intervention. They were provided with in service training, program DVD, instructional materials, yoga mats and video cameras to assist researchers. Results of the yoga intervention showed a moderate change in total behavior scores rated by classroom teachers. A small effect on the Irritability/Agitation/Crying subscale was measured and near significant effects were measured on the Lethargy/Social Withdrawal and Hyperactivity/Noncompliance subscales. The Stereotypic Behavior and Inappropriate Speech subscales measured no significant change. With the exception of the Lethargy/Social Withdrawal subscale, no measurable changes in the control groups were noted, although some behavior indicators increased, suggesting an escalation in negative behaviors. Minimal changes were noted in Parent ABC-Community ratings. Both pretest and posttest scores showed little or no change for the intervention group and a significant mean change for the control group, representing an increase in maladaptive behavior.

This evidence-based yoga program confirmed the authors' hypothesis that a manualized intervention would yield positive results. A bias towards selection of classes by school administrators instead of random selection, teacher bias and the low return of parent posttest questionnaires may have contributed to the final outcome of the intervention.

As the authors suggest, further research will indicate whether the efficacy of the GRTL program can lead to academic success among students with ASD. More inquiry is also needed to explore the impact when those same students become part of mainstream classrooms.

Authors, Steiner, Sidhu, Pop, Frenette and Perrin (2012), designed a pilot study for students with Emotional Behavior Disorder (EBD). Forness et al. and Merikangas et al. (as cited in Steiner, Sidhu, Pop, Frenette & Perrin, 2012), determined that 12-13% of school-aged children may

suffer from EBD. Smith et al. (as cited in Steiner et al., 2012), suggest that children with EBD diagnosis are often non-responsive to conventional special education approaches and behavior is often manifested in lower academic achievement, poor inter-personal relationships, high school dropout rate, unemployment, incarceration, substance abuse and suicide. The National Center for Special Education Research (NCSE) and Wagner et al. (as cited in Steiner et al., 2012), claim disruptive classroom behavior is the most intolerable of EBD symptoms as it directly influences academic success. According to Lippman et al. (as cited in Steiner et al., 2012), the biggest challenge, therefore, for classroom teachers in urban environments, is to manage and discipline student behavior which can result in loss of valuable instruction time.

A randomized controlled study by Lohaus et al. (as cited in Steiner et al., 2012), compared the use of a mind-body practice for relaxation using muscle and imagery based relaxation with 8-10-year old children. The imagery based technique decreased heart rate and skin countenance compared to the control group, who were provided with neutral stories for relaxation. Jensen and Kenny; Haffner et al; and Peck (as cited in Steiner et al., 2012), provided encouraging results for children with ADHD and yoga intervention. The three studies provided positive effects among school-age children with attention problems.

As exercise programs have been used in the past to treat anxiety and depression, there is still inconclusive evidence to support exercise alone as a successful intervention, according to Larun et al. (as cited in Steiner et al., 2012). Yoga, however, offers the relaxation element with the physical practice, visualization and meditation as opposed to a standard exercise program (Steiner et al., 2012).

Students were selected for this pilot study from an urban elementary school. The participants were 37 fourth and fifth graders, although 74 students were initially identified by the special education director and staff as having an emotional and behavioral disorder. Two weekly sessions were offered for a duration of 3 months. Yoga Ed. curriculum, which supports social-emotional and behavioral well-being was implemented in small groups (7-10 students).

Significant changes were reported by teachers using the Behavior Assessment Scale for Children (BASC-2) on the Internalizing Problems Composite, Behavioral Symptomes Index and Adaptive Skills Composite. The Swanson, Kotkin, Agler, M-Flynn and Pelham (SKAMP) assessment showed significant improvement in Classroom Attention Symptoms. Parent results were inconclusive due to a very low return rate of data (BASC-2 and additional questionnaires). Student data included results from 100% of participants of State-Trait Anxiety Inventory for Children (STAIC), quality of life (KIDSCREEN-27) and emotional intelligence (BARON-EQiv:YV) assessments. There was a significant increase in state anxiety reported.

Limitations to this pilot study included the challenges with assessments to both parents and students. Communication with non-speaking parents and between student and parent, the high mobility of families and outdated contact information contributed to limitations encountered.

The head yoga instructor was invited back by the school administrators to teach an introductory course to grades 1-4 with positive results from both teachers and students. The majority of teachers intend is to use their newly acquired skills within their own classroom setting and would also like to provide a time in their schedule to include yoga in their classroom.

For future research, the authors suggest using larger randomized controlled studies in school settings with interviews and focus groups. Also, long-term follow-up assessments may guarantee the sustainability of yoga interventions.

Yoga and Self-Objectification

Authors Shepler, Lepfer-Johnson, and Riovkin, recognized yoga as a useful tool in minimizing self-objectification in adolescent girls. Fredrickson and Roberts (as cited in Shepler, Lepfer-Johnson & Riovkin, 2008), hypothesize that young girls and women are socialized by Western society to view themselves as objects to be noticed and admired by others. This phenomenon occurs less frequently with men and may account for why women suffer more from depression, eating disorders and sexual dysfunction. These same authors suggest that sports and physical activity may contribute to a healthier body image. Young women, however, were among the least likely to benefit according to Prichard and Tiggemann (as cited in Shepler, Lepfer-Johnson & Riovkin, 2008) and were especially vulnerable to the more “feminine” sports of dance team, cheerleading and gymnastics, according to Parsons and Betz (as cited in Shepler, Lepfer-Johnson & Riovkin, 2008). In an earlier study, Daubenmier (as cited in Shepler, Lepfer-Johnson & Riovkin, 2008), found that women, ages 18-87, who participated in yoga, a mind-body exercise, reported having lower trait self-objectification as well as increased awareness, happiness and receptiveness to the physical practice.

Eight young women between the ages of 9-15 were selected from a Boys and Girls club in Anchorage, Alaska, to participate in a 6-week yoga intervention program. Kundalini yoga, taught by a certified instructor, incorporated breathing, mantra (chant) and meditation as well as the physical practice that provided the young women an opportunity to focus on feeling rather

than doing. Quantitative data included modified versions of the Self-Objectification Questionnaire (SOQ) and the Twenty Statements Test (TST), which measures state self-objectification. The SOQ analyzed the importance of perceived body traits before and after the intervention series. The TST presented open-ended questions about body image and feelings and was given to participants before and after each weekly practice. Results indicate that Kundalini yoga was more effective in reducing state self-objectification than trait scores. Although statistical significance proved small, the sample size allowed for an adjustment to the conventional statistical significance which produced positive results. The largest decrease in self-objectifying statements was seen immediately after the first weekly practice and may suggest yoga is an effective response. The outcome of this study indicates yoga as a favorable practice to reduce incidence of self-objectification among young women and encourages further study with larger sample sizes.

Incarcerated and High-Risk Youth

Two pilot studies were conducted with incarcerated youth and at-risk high school students using the Transformative Life Skills (TLS) model. Research was conducted by Niroga Institute, located in Oakland, CA at the Alameda County Juvenile Justice Center (ACJJC) and at El Cerrito High School. The purpose of this study was to measure the effects of yoga, breathing practice and meditation on reducing stress and regulating self-control.

The U.S. Department of Justice data (as cited in Ramadoss & Bose, 2010), reports that more youth are imprisoned in the United States than in any other country through the juvenile and adult system. Further research by Sickmund and Sladky (as cited in Ramadoss & Bose, 2010), confirms that California leads the nation in number of incarcerated youth. Earlier studies by

Holman and Ziedenburg (as cited in Ramadoss & Bose, 2010), indicate the often disastrous effects of juvenile detention. When youth are separated from family and community, deleterious effects on emotional, psychological and social development are observed. The recidivism rate supports the view that detention may not be the most effective solution to delinquency and crime among youth nor the most cost-effective means of restoring order. A policy study conducted by Aos (as cited in Ramadoss & Bose, 2010), suggests that alternative programs may be more socially and economically responsible.

Another area of serious concern among youth is the high school dropout rate. According to the California Research Dropout Project (as cited in Ramadoss & Bose, 2010), California leads the nation in high school dropouts. The Husky Report by the Alameda County Probation Department (as cited in Ramadoss & Bose, 2010), estimates that a 50% decrease in high school dropout rate in Oakland would lower community costs and also reduce crime by 22% within the city.

Participants in the first pilot study were 217 residents of the ACJJC. Yoga classes have been offered on a daily basis since 2006 for both residents and staff. For the intention of this study, data was collected from participants over an 18-month period. Young women comprised 56% of the participants, and young men made up the balance of subjects. Few participants reported their age and ethnicity but demographics were reported to be consistent with the population of the center, with 65% of subjects between the ages of 16 and 17 and 73.1% of African American descent. Quantitative data from pre and post tests on perceived stress and self-control were collected from 35% and 32% of the participants, respectively.

Separate TLS classes were taught by certified yoga instructors to boys and girls Monday through Friday. Additional training was provided for these instructors who serve vulnerable youth. The 60-minute class included attention to yoga poses to benefit physical, emotional, psychological and social healing. Quantitative data was measured prior to, during and following the 18-month intervention. The Perceived Stress Scale (PSS-10), a self-report questionnaire consisting of 10 items was given pre and post study. The Tangney's Self-Control Scale (TSCS-13), a self-report questionnaire consisting of 13 items, was also given pre and post study. In addition, participants were asked to complete a 4-item questionnaire weekly in order to note any significant shifts in stress levels. Qualitative data was recorded by staff through observation and reflection of the program. The results of the PSS-10 showed a statistically significant decrease in perceived stress while results from the TSCS-13 data indicate a statistically significant increase in self-control at the completion of the 18-month program. However small these measurable effects were, observation data collected by staff reinforced the positive effects of the program. Participants became accustomed to resolving conflict and practiced self-awareness. A noticeable increase in leadership roles among some youth suggests that yoga sessions provided a strong sense of well-being.

Participants of the second pilot study were selected from El Cerrito High School (ECHS) in California. Student profile is 35.6% African American, 23.7% Hispanic, 17.2% Asian, 16.7% Caucasian, and 2.5% Filipino. One-third of the student population qualified for free and reduced lunch. Fifteen classrooms (472 students) comprised the TLS intervention group and 4 classrooms (85 students), the control group that did not receive the TLS program. The 15-minute yoga sessions were offered each day for a total of 18 weeks and student attendance determined the frequency of instruction, with 32.5% receiving the program three times a week. The same

pre and post-tests (PSS-10 and TSCS-13) and mid-point evaluation were administered to assess any change in perceived stress and self-control among both intervention and control groups. Results indicate a small but statistically significant decrease in overall perceived stress among the intervention group, while the control group showed no significant change. Perceived stress was significantly reduced for those receiving instruction five times per week, as opposed to once, twice or three times per week. There was no significant change in self-control among the intervention group. The small observable decrease among members of the control group could predict a tendency towards less self-control. Qualitative feedback indicated both students and teachers felt calm, focused and relaxed. The authors hypothesize that even a short but frequent use of Transformative Life Skills can produce positive results in reducing perceived stress and increasing self-control.

Both pilot studies strongly indicate that yoga intervention can bring about positive change in vulnerable youth. The authors propose that becoming involved with troubled youth may lead to fewer high school dropout rates, juvenile crime and violence which could ultimately lead to social transformation. The need for future research is key to understanding the implications of bringing yoga practice to youth in the classroom and how it could impact students and teachers alike.

Interview with an Expert

Brynne Caleda, M.Ed., E-RYT, and CEO of Yoga Ed., agreed to be interviewed on February 5, 2015.

1. Today's youth share some of the most unique stressors of modern society; environmental, physical and mental. Do you see one as being more prevalent in the classroom setting?

Youth do have a lot of unique stressors from modern society, however, I can't say that I would say one is stronger than the other in the classroom.

2. "The places that are most challenging to teach are also the places where children embrace (and need) Yoga practice the most" (Harper, 2010, p. 99). Do you agree with this statement?

I am careful to say that anyone children or adults "need" yoga. I think yoga can be a tremendous tool to support the health and wellness of both students and teachers. I would be more comfortable to say, "The places that are most challenging to teach for Teachers are also the places where teachers find yoga to be beneficial."

3. As a leader of Yoga Ed., have most schools and school districts welcomed and embraced the idea of yoga in the classroom?

Yes, most schools and school districts have welcomed and embraced Yoga Ed.

In being pioneers in the field of Yoga Education we have Our Guiding Principles which summarize acceptable conduct that allows our Trainers and Educators to create safe and respectful yoga in school environments. These principles set best practices for yoga in school programs and are not intended to supersede the policies of any school.

Our Principles

We agree to uphold the following Guiding Principles:

- We conduct ourselves in a professional and conscientious manner.

- We teach Hatha Yoga, which includes breathing exercises, yoga poses, yoga-based games, and yoga relaxation.
 - We provide yoga in school programs to promote health and wellness.
 - We call yoga poses by English names that do not have religious connotations.
 - We carry out any Yoga Ed. programs in a way that would seem non-religious to a reasonable student in that school.
 - We acknowledge the limitations of their skills and practice and, where appropriate, refer students to seek alternative instruction, advice, treatment or direction.
 - We educate school administrators, teachers, parents and students about the yoga in schools program before it begins. The administrators, teachers, parents and students have the option to not participate in our programs.
 - We create and maintain a safe, clean and comfortable environment for the practice of yoga in schools.
 - We value diversity and demonstrate this by respecting all students regardless of age, physical limitations, race, creed, gender, ethnicity, religion or sexual orientation.
 - We respect the rights, dignity and privacy of all students.
4. In your opinion, do schools and school districts add to student anxiety with increased accountability and testing? And, if so, how can Yoga Ed. make a difference?

I think students (regardless of influencers and depending influences) experience high levels of anxiety and a place where it shows up frequently is with testing.

Where Yoga Ed. helps make a difference with students and teachers is that we give them tools that have a clear utility to help lower levels of anxiety.

For Example:

When Students and Teachers utilize yoga tools before such as Balloon Breathing before taking a test, it may lead better test results for students and accountability for teachers.

5. Can you provide any examples of “harmonious learning” as it would apply to a group of English language learners while guiding a yoga practice?

I feel all aspects of yoga are Harmonious Learning. Yoga Ed. addresses both the Teacher and the Student through Harmonious Learning.

For example we teach Teachers about Self-Awareness. Self-awareness is the state of consciously being present to thoughts, feelings, and sensations. Self-awareness allows us to bring clarity to our internal state. Instead of reacting blindly to experience, we give ourselves the mental space that allows us to slow down and examine our thoughts objectively. This creates perspective and freedom to choose the most effective path.

When working closely with children and teens, we may encounter specific words or actions that cause us to react strongly. These are known as triggers and are often connected to our own unresolved emotional experiences from childhood. Triggers can cause us to transfer and superimpose our own experiences onto the children we work with.

Cultivating self-awareness in your teaching allows you to recognize your own past experiences and reactions as they are triggered. This awareness empowers you to shift from a place of reactivity to a place of clarity, where you move through your own past to recognize the present experiences of the children and teens in front of you.

As you become more familiar with your thoughts and emotions in your daily life, you will naturally bring this awareness into the classroom (Caleda & Bond, personal communication, February 15, 2014).

The intention of the Yoga Ed. Lesson plans are to engage students. Yoga Ed. believes that engaged students learn more efficiently and are more likely to remember what they learn. Often second language learners learn well through kinesthetic learning. Moving the body engages the mind. Research has shown that light exercise promotes learning by stimulating the brain's ability to process and store information (Jensen, personal communication, February 15, 2005).

6. What is your experience with students with Autism Spectrum Disorder (ASD) and yoga?

I don't have any personal experience however we have several Trainers who do and we are in the process of creating the Special Needs Manual.

7. How important do you think learning relaxation techniques are for students?

Relaxation exercises calm the mind and body. They include focused attention exercises and visualizations that allow students to take a break from the busy school day and restore their inner balance.

Relaxation offers an invaluable opportunity for students to shift their focus from external experiences to internal understanding. This shift in focus allows students to observe and reflect on their inner thoughts, ideas, and feelings. By encouraging self-awareness, relaxation teaches students to tune into what's going on inside and to let go of any unproductive tension that they may be holding on to. Relieved of this tension, students are able to process and learn new

information. Over time, your students will naturally build the confidence and expertise to use these relaxation exercises to recognize their inner experience and shift their state of mind.

A busy lifestyle with no time to relax can lead to chronic stress. Given students' increased workload and extracurricular activities, it is very important that you encourage your students to take time to relax. This is a proven way to increase productivity and learning.

Studies have demonstrated that relaxation positively affects how our body functions. When we relax, our breathing and heart rate slow, blood pressure decreases, immune function increases, and our overall sense of well-being increases. This alleviates the many signs of stress including digestive problems, high blood pressure, headaches, insomnia, anxiety, and depression.

When we are active during the day, we naturally need to relax. People who exercise tend to sleep better. Let your students know that an active lifestyle will improve the quality of their rest (Caleda & Bond, personal communication, February 15, 2014)

8. Have you noticed any relationship between mindfulness practice and an increase in self-regulation and self-esteem, especially in school-age girls?

Absolutely, I have seen the clear increase in self-regulation and self-esteem when teaching yoga to girls. Especially when working with adolescent aged girls.

Yoga class is a safe environment for students to learn and practice yoga tools that will help them navigate their daily lives. Through honest communication and problem solving, yoga gives students the opportunity to work through the challenges they face as they are growing up.

As a Yoga Educator, you are a mentor for your students. You are in a position to guide and support your students through this turbulent time and help them turn difficult situations into exciting adventures. Your understanding of adolescence gives you greater insight into what is happening in their lives so you can design yoga classes that are relevant and useful. Yoga can support adolescents in the following ways:

Sense of Identity

Yoga connects students with their inner experiences and allows students to discover their own sense of self.

Sexuality

Yoga helps students manage this driving force in their lives.

Body Image

Yoga encourages students to develop a positive, healthy relationship to their bodies. Yoga also teaches students tools how to care for themselves, make wholesome food choices, and develop healthy physical habits.

Personal Safety

Yoga brings awareness to emotions and helps students respond effectively. Students often experience greater self-respect through their yoga practice, which helps them set safe emotional and physical boundaries.

Acceptance

Non-judgment, self-compassion, and self-respect are core principles of the Yoga Ed. approach. Through yoga activities and role modeling, Yoga Educators teach students the power of self-acceptance. Yoga class gives students a supportive community where they fit in and feel good.

Emotions

Yoga brings self-awareness, self-regulation, and stress reduction to the emotional peaks and valleys of adolescence. Students learn how to respond reflectively rather than reactively to life's challenges. Yoga also nurtures emotional intelligence as students learn to consult their intuition when faced with complex life situations.

Stress

Yoga relaxation gives students the opportunity to unwind and release their stress. Students learn many stress management techniques and choose the ones that work best for them.

Compulsion and Addiction

Yoga nurtures the mind-body connection, which creates awareness and the realization there are a range of choices in every situation. Students experience greater freedom from negative behavior patterns and often take the next step to get the help they need or do the work to move through detrimental compulsions and addictions.

Peer Pressure

Yoga nurtures a stronger sense of self. By creating a non-judgmental social environment, Yoga Educators can help students be true to themselves instead of trying to “look good” or “be cool.”

Success

Yoga empowers students to access their inner resources to discover what success and fulfillment mean to them (Caleda, & Bond, personal communication, February 15, 2014).

9. Tell me about one of your many success stories.

I founded a nonprofit organization in August 2010. Stretch Your Imagination's mission is to teach yoga techniques to the students, teachers, and parents of Hawaii's schools in order to improve physical and emotional well-being in tandem with academic and life success. Our first program was a two-year pilot program at Ala Wai Elementary School in Honolulu, Hawaii.

Upon completion of the first year the school counselor who has been on campus for 35 years told me the "overall health and wellness on campus had changed since having the yoga programming on campus." This was largely in part because all 489 students were practicing yoga 1 time per week but more importantly we had a 85% participation rate of teachers taking the weekly yoga class for teachers, participating in their students classes, and the annual Tools for Classroom Teachers workshop.

For me the most powerful part of the work that Yoga Ed. does is sharing with adults the basic principles of the Yoga Ed. teaching philosophy:

BE / INTENTION

Intention is at the root of everything we do. It inspires, drives, and motivates us into action. Your intention is fundamental to the way you teach. Whether you teach because you want the children and teens in your life to be happier or because you want your students and colleagues to be

healthier, you always return to your intention for doing the work and align your intention with your approach to teaching.

DO / ACTION

You practice yoga because you understand that your practice increases your relatedness to your students. You intuit their reactions, understand their experiences, and guide them through the experience because you are on a similar journey. Your relatedness powers your teaching.

HAVE / OUTCOME

You have credibility because you live up to what you teach. You are the balanced, healthy human being you aspire to see in your students. Your work is genuine and your practice speaks for itself.

Your work starts from within. Finding the yoga in your own life helps you cultivate a more authentic and effective relationship with your students. In this section, we will reflect on how an internal yoga practice and external yoga practice deeply influence your approach as an educator. Your internal practice is your self-work: the self-study and self-practices that cultivate your own well-being and balance when working with adolescents. Your external practice is your work with others: the way you communicate with your students, both physically and verbally (Caleda & Bond, personal communication, February 15, 2014).

10. What is your vision for our future generation of students and their classroom yoga experience?

Within academia there is little or no room in the curriculum where children are taught Life Skills. Life Skills refers to the skills usually associated with managing and living a better quality of life, they can help us to accomplish our ambitions and live to our full potential. I envision a future for students where through the practice of yoga they learn Life Skills. Yoga Ed. achieves this by teaching teachers and students how to practice Self-Awareness and Self-Care.

For example, when a student has the ability to identify who and how they are being in any given moment (Self-Awareness) and then has the appropriate yoga tool to shift into who and how they want to be (Self-Care) to me is when we have powerful physical, mental/emotional, social, cognitive success.

I appreciate Ms. Caleda's honest and forthright answers to my interview questions. Her responses were thoughtful and were clearly intended to highlight the benefits of yoga practice for health and emotional wellness. Ms. Caleda's expertise is invaluable and her intention is for both student and teacher to realize their potential and development of self-awareness and self-care as the essential foundation of well-being.

Chapter 3 Method

Research Approach

This is a teacher action research study using both qualitative and quantitative evaluations. Subjects participated in ongoing yoga practice. The study took place once a week for a duration of 4 weeks. Practice included physical poses (asanas), breathing (pranyama) and relaxation (savasana). At times, games, storytelling and visualization were used to enhance subject experience. There was a focus group before the initial practice and a follow-up focus group at the end of the yoga series as well. Directing teacher observed and recorded changes in behavior before, during and after the yoga practice as well as throughout the series. Focus group included pre intervention class discussion and post intervention written discussion questions. Qualitative data also included informal observation and reflection by both researcher and directing teacher.

Lesson Plan Format for Research

Part A: Link Lesson to Common Core Standards

Academic Content Standard (s): Physical Education Model Content Standards

Grade Five

STANDARD 1: Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities.

Body Management

1.1 Perform simple small-group balance stunts by distributing weight and base of support.

Flexibility

3.6 Perform flexibility exercises that will stretch particular muscle areas for given physical activities.

Fitness Concepts

4.5 Explain the elements of warm-up and cool-down activities.

Muscular/Endurance Strength

4.13 Explain the benefits of having strong arm, chest, and back muscles.

Flexibility

4.14 Explain the benefits of stretching after warm-up activities.

Self-Responsibility

5.3 Distinguish between acts of physical courage and physically reckless acts and explain the key characteristics of each.

5.4 Act in a safe and healthy manner when confronted with negative peer pressure during physical activity.

Social Interaction

5.5 Contribute ideas and listen to the ideas of others in cooperative problem-solving activities.

5.6 Acknowledge orally the contributions and strengths of others.

Group Dynamics

5.6 Accommodate individual differences in others' physical abilities in small-group activities.

5.7 Appreciate physical games and activities reflecting diverse heritage.

Unit/Lesson Goal

What broad ideas/concepts does this lesson work toward which the student will be able to demonstrate at the end of this unit?

The learners will be able to bring an awareness of breath to their activities and to their relaxation.

The learners will be able to develop their intrapersonal skills through a better understanding of “self”.

The learners will be able to improve their interpersonal intelligence through community practice.

Part B: Plan the Lesson

Learning Outcomes/Objectives for this lesson: *What specific behaviors will the students demonstrate to show they have achieved the unit goal? (Outcomes must be observable and measurable).*

The learners will increase strength, balance and/or flexibility.

The learners will attentively listen to instruction.

The learners will actively contribute to focus group questions and discussion.

The learners will be able to sit for longer periods of time in quiet reflection and concentration.

Assessment: *How will you check for understanding and learner's level of achievement of lesson outcome? What evaluation measures, formal and/or informal, will you use?*

Informal observation of students: **I will monitor group yoga practice and progress and be available for questions during the group activities.**

Formal observation: **Students will write/draw about their experience following a visualization or storytelling activity.**

Adaptations for EL and SN learners: *What adaptations will you make for English Learners and students with Special Needs (ie: disabilities and GATE)?*

For EL learners, I will use the Total Physical Response (TPR) approach. Students will listen, observe and imitate the flow of practice. At first, physical poses will be repeated. As the series continues, new poses will be introduced, modeled on previous ones.

Part C: Components of this Lesson

1. Introduction: *How will you hook learners into the topic of this lesson?*

I will begin the yoga series using focus questions for whole class discussion.

State the purpose of the lesson: *How will you explain why the learner needs to know this concept or skill: Why is it important/relevant?*

Focus questions will offer students/teachers a chance to brainstorm the significance, meaning and history of yoga.

Share the learning outcome: *How will you state the learning outcome with the students so that they are clear about the purpose/intent of the lesson?*

The purpose of this lesson is to achieve a calm, centered and balanced inward feeling with emphasis on conscious breathing. The short history of yoga, including the use of some Sanskrit words (ie: Namaste), will give students an understanding of yoga's roots in ancient civilization.

Connect to prior learning: *How does this lesson/skill/concept connect to other learning and/or experiences?*

These lessons and skills become life learning. They connect to their everyday lives using concepts from “Olive School in Motion (OSIM) movement program.

2. Instructional Strategies: *What are all the steps necessary to present this lesson (writing as a script is helpful or a list is fine, too)? How will you model what you want the students to do? What assignment, if any, is planned to reinforce learning?*

- 1. Breathing Exercise 5 mins**
- 2. Dedication/Intention**
- 3. Master pose- Tadasna-Mountain pose (connection to nature) 5 mins**
- 4. Centering breath work in Tadasna**
- 5. Balance pose-Tippy toes**
- 6. Heaven and Earth pose**
- 7. Lateral stretches – left hand holding right wrist 5 mins**
- 8. Half-sun salutations 5 mins**
- 9. Chair pose (incorporate former pose- centering breath)**
- 10. Chair pose twist 5 mins**
- 11. High lunge (becomes Warrior pose later)**
- 12. Knee raises (becomes Tree pose later)**
- 13. Cool down (Rag doll with open mouth exhalation)**
- 14. Relaxation exercise in the chair (meditation/visualization with Yoga Ed.)**

Using same main poses each week... breath work, tadasana, sun salutations, chair pose, high lunge, etc. will strengthen and reinforce learning.

- 3. Student Activities: How will students be engaged during each part of this lesson? How will students practice the skills/concept presented while you are available for assistance?*

Yoga postures and relaxation breathing will be modeled by myself and Susan Ackermann, certified yoga instructor. Poses will be repetitive and build upon one another weekly.

- 4. Student Groupings: How will you group students during each part of this lesson?*
Students will be instructed as a whole class, but according to ability, may need to be shown variations to poses. Occasionally, students will be asked to participate in partner poses. Yoga practice will also include a visualization and/or storytelling sequence where students will be asked to sit/lie comfortably and in silence.

- 5. Materials/Technology/Resources: What technology links are made in this lesson? What materials (supplies, equipment, teaching aids) need to be prepared and available? How will you use volunteers/instructional aides in this lesson (if available)?*

Audio recorder

Music- Ipod and speakers

Flip chart

Index cards

Yoga Ed. Curriculum and Yoga Ed. Tools for Teachers Manual Grades K-8

Professional Institute 1 Foundations: Teaching Children's Yoga (First Edition)

Teaching Stress Management- Activities for Children and Young Adults by Nanette Tummers

Yoga mats

- 6. Progress Monitoring of Student Learning: What strategies will you use to check for understanding? What strategies will you use to monitor progress in learning?*

Poses will be modeled for students and questions will be encouraged to check for understanding. While students are practicing, instructors will be walking around the classroom, assuring and helping those students who appear to be struggling. Permission will always be asked in advance of physical adjustment (s).

7. *Closure: How will you close the lesson? How will you connect the lesson's main points to learning outcomes?*

I will close each lesson with a meditation/visualization.

Ethical Standards

This paper adheres to the ethical standards for protection of human subjects of the American Psychological Association (2010). Additionally a research proposal was submitted and reviewed by the Dominican University of California Institutional Review Board for the Protection of Human Subjects (IRBPHS), approved and assigned number 10292.

Sample and Site

Participants were 24 fifth grade students, an intact group, at a suburban elementary school in Northern California. There were 8 English Language Learners (CELDT levels: 1 Beginning, 3 Intermediate, 4 Early Advanced). One male student is on a 504 plan. The fifth grade teacher agreed to participate as record keeper for behavioral changes before and after the weekly intervention.

Access and Permissions

I am affiliated with this elementary school as I completed my student teaching with the directing teacher and her fourth grade class. I was hired to teach second grade for the 2008/2009 academic school year.

Approval of participants

Informed consent letters (both English and Spanish) were written and sent by the teacher of record to the school principal, directing teacher and parents or guardians.

Data Gathering Procedures

Data were gathered in the form of open-ended focus group discussion questions, pre intervention. The directing teacher used a checklist of ten items that measured observable behavioral changes in students, changes in strength, balance, endurance, focus and concentration and attention. Changes in increased or decreased competition, self-esteem, self-regulation and acceptance of others and community were also recorded over the 4-week period by the directing teacher. In addition, changes in students with medical conditions were observed. The directing teacher noted any negative response to teaching cues for the student exhibiting moderate hearing loss. The directing teacher also observed and noted any difficulty with the physical, breathing and relaxation practice for the student who had undergone a liver transplant. At the conclusion of the yoga intervention, data were gathered from student feedback on 6 written questions which comprised the post focus group.

Data Analysis Approach

Data were evaluated at the end of the 4-week series of yoga intervention. Both quantitative and qualitative research were measured and summarized.

Chapter 4 Findings

Description of Site, Individuals, Data

I was fortunate to have the music portable available to students for our yoga intervention practice. Thirteen female and eleven male students participated in the weekly series, which occurred after morning recess. The directing teacher, assistant researcher and I collaborated each week to provide 60 minutes of movement and relaxation. Data were obtained through focus groups, measurable results as well as observing behavioral change throughout intervention.

The Research Story

The yoga intervention was implemented over a 4-week period. Each week consisted of a breath and physical practice and concluded with a relaxation sequence. It was important for both researchers to establish a sense of trust and continuity with students from the onset of the study. A focus group was offered during the first session and provided students a forum to voice their general knowledge and experience, if any, of yoga. Three students had previously taken a yoga class while more than half the class was acquainted with someone who practiced yoga and had access to a yoga mat at home. The definition of yoga was discussed as the union of mind, body and spirit. Researchers shared their knowledge that the word *yoga*, is derived from the Sanskrit (a classical Indian language), root, *yuj*, meaning *yoke* or *union*. Students added their own definition of yoga as a way to stretch out your body; balance, focus, calm down, breathe in and calm down when scared or pressured.

Researchers were curious about student goals and outcomes and asked how this practice could benefit and improve their lives. Feedback included their interest in learning how to balance, stretch and relax. Developing their skills in focus and coordination, breath control and stress reduction were important goals for mastering ballet, swimming, lacrosse, and soccer. One

student was interested in learning how to type Java Scripts more fluently while another voiced his emotional concerns. A very honest comment from one of the male students that “none of the boys really like Olive School in Motion (OSIM)”, prompted further discussion by the directing teacher. The teacher acknowledged that yoga and other mindful and centering practices such as OSIM, were activities that may be perceived as “uncool” by some of her young male students, but that the young man was not to be considered a spokesperson for the entire class. Two traditional poses already practiced during OSIM, Warrior and Eagle, were requested by students, incorporated into our yoga sequence and refined over the four weeks.

To encourage student interest and participation, I provided a glimpse into how some athletic teams, players and Olympic competitors have used the practice of yoga to improve their game and excel in their sport with more endurance, better insight and decision making, developed awareness and used their imagination to reach their goals.

Following the focus group, the first physical practice was held at student desks in the fifth grade classroom. Class discussion and breathing activity were introduced followed by a short physical practice. Students returned to their desks for a sound meditation and mindful sitting practice before being excused for their PE class.

Our second research session was held in the music portable where students had the space to transition from discussion, yoga game, physical practice to quiet reflection and visualization. Each student was provided with their own individual mats, which were loaned to them by the researchers and directing teacher. We reminded students to bring their own mats, if available, but only 3 participants remembered to do so for the duration of the study. Our yoga game, *dogs and snakes* expanded on our theme, focus and coordination, and allowed students to get out all their wiggles and at the same time taught them skillful poses they would be using during the next 3

weeks. Our physical practice consisted of belly breathing and foundation poses that we continued to build on weekly. The yoga visualization, *Meeting Your Future Self* (Kalish & Guber, 2002), was age appropriate and allowed students to dream, imagine and create their own success story. As students were being excused to P.E., one of the male students remarked to the directing teacher that his neck had not been bothering him since he had been doing yoga. Of course, I did wonder how he could assume this discovery was a positive result of practicing yoga, since this was only our second weekly class. I wanted to believe him all the same. The directing teacher's observation of student response to our visualization was, "... they have never been this quiet". She spoke of the benefits for students who are not "in touch" with their own bodies, especially those who always seem to be "connected" outside of school hours with personal devices and technology.

Students entered our third week late but more quietly and quickly than in week 2. The assistant researcher led students in *alternate nostril breathing*, commonly known as left/right breath. This breathing practice introduced our theme, balance, and taught students another relaxing breath to use in times of stress. A yoga dance game, *stop the rock*, demonstrated the importance of physical stability while students mastered a balancing pose known as star pose. As a whole class, we discussed the definition of balance, how it feels to be off balance and how students can support themselves to stay balanced in their lives. "Stay in position wherever you are", "not doing too much" and "eating a balanced meal" were responses for feeling balanced. "Toppling over" and "not taking care of yourself" were student replies to feeling off-balance. To pique student interest, I introduced the metaphor of a balance beam, and explained how gymnasts who need to stay focused, relaxed and centered, are always going a little off balance then coming back into balance. I added that breathing, finding a focal point, engaging one's core or center and

moving slowly with grace were tools that students could use to practice balance. Yoga postures introduced in the first and second week were practiced while new balance poses, *tree*, *eagle*, *flower* and *bat* were taught to reinforce our theme. Our closing visualization, *Wisdom Tree* (Kalish & Guber, 2002), coached students to center themselves, relax, breathe and get balanced inside. The purpose of this relaxation was to prompt students to feel strong, beautiful and wise like their tree and to realize their self-love.

Two students with medical conditions, who were scheduled for speech therapy, were absent during the first 3 weeks of yoga intervention. The directing teacher asked permission of their speech therapist to attend the fourth week of yoga practice. The directing teacher also showed genuine interest in alternate nostril breathing and used the practice with both fifth grade classes prior to a science test the following day.

We opened our fourth week of yoga research in the classroom with a review of the previous week and introduced our theme, the *finesse* of yoga. I was given information from the directing teacher that the majority of students had met or improved their science score from a previous science test. Open discussion about the effects of *alternate nostril breathing* (right/left breathing), showed that the practice had created a positive environment for students, but left some fifth graders feeling distracted by the soothing music played in the background. Most male students concurred that the breathing technique did not help them relax. Three breathing strategies (*abdominal*, *snake* and *alternate*) were reviewed before introducing another calming breath, *candle breath*. This breathing technique teaches students to control their exhalation, much like blowing out a candle, a metaphor used to explain *force* and *finesse*. Students were then given a short piece of knotted rope and asked to untie the knot skillfully, using the imagery of finesse. We followed with a short discussion on how yoga can help students be strong yet

graceful. Favorite yoga poses from previous classes were practiced, with noticeable strength and attention. Our yoga game was a rendition of *freeze dance* accompanied by contemporary music, where students would strike a yoga pose they had learned during previous sessions. Students were creative, entertaining and both researchers were highly encouraged by the level of skill and knowledge they had attained. The relaxation piece of our class introduced students to a restorative pose called *constructive rest*. From here, students were led into their guided rest and visualization, *Watching Yourself on TV* (Bond & Caleda, 2014). This guided relaxation asked students to imagine themselves in a movie about themselves. Their imagination led them to their favorite place where they watched themselves doing something they loved to do and would like to do better. It could be as simple as playing their favorite sport, exceling in school or learning how to be thoughtful and kind to others.

My initial intent had been to conduct the post focus group during our final yoga session, but due to limited time and the desire to impart as much information as possible to students, we decided to present the focus questions on the following Wednesday. We moved the first half of the focus group class inside the fifth grade classroom and began with a short breathing practice. *Bear breath* was explained and taught to give students a different breathing technique before stressful times. Although *alternate nostril breathing* is quite powerful and effective, it may not be an appropriate or fitting strategy when in public. *Bear breath* is also a calming breath used to focus and concentrate. We followed-up with a short right/left nostril breathing practice before distributing the written focus group questions:

Think about your experience of yoga class in the last 4 weeks. How would you answer the question, "What is yoga"?

"Yoga is a kind of stretching where you join your mind and your body."

"Yoga is an art of breathing and balance from India."

"Yoga is an ancient Indian form of meditation that had poses added later in time."

"It helps me be relaxed."

"Yoga is exercise that is supposed to help you focus."

"It is a motion that helps your breathe and concentrate on what we are going to do."

"Yoga is a relaxing exercise."

"Yoga is an Indian meditation that helps you relax."

"Yoga is a kind of exercise that helps you feel focused or relaxed when you have been stressed about something or felt nervous."

"Yoga is a way to focus your mind and body with breathing and poses. It can calm you down when you are stressed or nervous."

"Yoga exercise for your body so if you are feeling weird."

"It is a way to relax, exercise, calm your body and release energy."

"Yoga is something like a way to clear your mind and with your frustration."

"Yoga is from India and it is supposed to calm people and make them feel better and stronger."

"Yoga is something that calms you down."

"Yoga is an exercise and a way to calm yourself. Yoga takes practice and time."

"Yoga is a relaxing technique that calms the body."

"Body, balance, exercises"

"Yoga is something that you relax."

"Yoga is uniting the body and the breath."

"Yoga is breathing and relaxing and clearing your mind."

"Yoga is a way to calm yourself and clear your mind."

"To do exercise"

What did you like most about participating in yoga class?

“I liked the visualization because it gave me a chance to think.”

“Childs pose”

“My favorite part was the yoga games.”

“Laying down”

“The eagle pose”

“When we played the yoga games and when we went to our own garden”

“When we got to relax at the end of the class and the breathing”

“My favorite part was the visualization and the yoga games.”

“I liked that Ms. W and Mrs. A let everyone go at their own pace and everybody could learn at a good speed. I also like the visualization and I think it will help me in my daily life.”

“Personally, I really like enjoyed the visualization part. When you had us close our eyes and relax, it made the nerves and stress flow out of me, making me feel like a new calmer human being.”

“My favorite thing was where you close your eyes and think about your garden.”

“The visualization and poses”

“The visualization”

“I liked that we did some hard poses and some easier poses and I thought it was fun playing the games.”

“Laying down”

“I like the yoga games and the last part she always does was the visualization.”

”The games”

“Play games”

“The flower and the tree”

“The poses because it helps calm your nerves.”

“I like the visualization the most.”

“I did not like some stuff from yoga and I didn’t have a favorite part.”

“The tree position”

What did you like least about participating in yoga class?

“I did not like the poses or how much time it took. I also did not like taking off my shoes.”

“The visualizations”

“I didn’t like the breathing part.”

“Balancing”

“During the science test the music was **VERY** distracting. I could **not** focus.”

“I didn’t hate anything. Everything was fun.”

“I like the tree pose the least.”

“Nothing, I really liked everything.”

“I did not like the chair position because I don’t think it felt that it helped me in any way.”

“The least was the nose/nostril breathing because it didn’t seem to calm me down as well as the others. I seemed more focused on the thumb finger situation than just breathing.”

“The one I like the least is the rock pose.”

“I did not like really like trying to do a few of the poses because I am not yet limber or flexible enough to easily touch my toes.”

“Having not be able to do something”

“We did the visualization at the end. I would like if we did that so we did yoga then had the visualization then did a little more yoga.”

“Being patient”

“I did not like doing the breathing as much as the games.”

“Sun salutation”

“I liked everything.”

“The dog position and the chair position”

“I’m not completely sure.”

“Taking off our shoes”

“Everything because I don’t like yoga and I don’t want to participate”

“The flower position”

Is there anything you have learned in yoga that you might be able to use in your daily life?

“No, I will not use anything that I learned in my daily life.”

“No, because I do not do anything that requires me to think about my breathing that much.”

“Ways to calm down- visualization”

“Breathing in and out”

“No, not really.”

“I use the breathing technique before I score a goal of soccer.”

“I would use the breathing for my daily life.”

“I would use the breathing to help me when I am stressed out, mad or sad.”

“I would like to use visualization and some breathing techniques because I think it would help me a lot in my daily life.”

“Well I am a competitive level 4 gymnast so when I am about to perform I get really shaky and nervous but yoga will help me breath to relax. The balance beam takes a lot of balance so doing focus really helps.”

“I learned that yoga helps you calm down.”

“The breathing and visualization was nice. I enjoyed how it made me feel.”

“I would use the breathing treatments when I’m having a hard time.”

“Yes, when I’m taking a test for anything I could use the breathing.”

“Yes, because I can do math, social studies, ELA and PE better.”

“The visualization helped me to let all the stress go away.”

“Breathing”

“No.”

“The breathing from your nose”

“Possibly the breathing, for relaxation”

“The breathing”

“Nothing. I’m just not a big fan of yoga.”

“When you breathe in your nose”

Would you like to see yoga offered or integrated into your class schedule?

“No, I did not experience any calming effects from the yoga.”

“No, because it often distracts me and makes me bored.”

“Not really, because I feel I could be doing other things.”

“Not really.”

“No. It sort of gets us too relaxed before P.E.”

“Yes, yoga is so fun I like it better than an electronics game.”

“I would do yoga breathing when I want to relax.”

“Yes, because it is really fun to do.”

“Yes I would because I think it would really help me in class and at home when I have problems.”

“Yes, even if it was 15 minutes I remember leaving feeling relaxed and fresh. Yoga would definitely make a difference in my school work.”

“I would because you can calm down.”

“Yes, I enjoyed this activity and I think it could be helpful in school.”

“Yes, because it would be helpful to us when we have P.E. or other things.”

“If we did yoga every other week”

“Not really because I’m not that patient.”

“I would like to have yoga in my class schedule.”

“Yes.”

“Yes.”

“Maybe I would like to have yoga in our schedule.”

“Yes, because it helps relax you.”

“Yes.”

No comment

“Yes I would like to have yoga in our schedule.”

Do you have any questions or comments?

“Are there different movements for breathing?”

“Why did you choose to do yoga?”

“At what age did you learn about yoga?”

“Will you come back to teach yoga? Why do you enjoy yoga? Why did you choose to teach us yoga?”

“How does yoga make you feel? Thank you for giving us this time. I really believe it helped me.”

“No, thank you very much.” (smiley face yoga)

“I think this a great activity because it calms us down and teaches us something very helpful and valuable as a life lesson.”

“Thank you for your time here in _____ School and helping us through hard day.”

“How was yoga first created? Thank you for coming to _____ to teach us yoga. ”

“How long have you been doing yoga? When did you start doing yoga?”

“Can YOU teach this to my brother to get him to calm down PLEASE!!?”

Students were given 25 minutes to answer focus group questions with additional time if needed to complete the questions following their P.E. class. Two English language learners, assisted by fellow classmates and directing teacher, used Google Translate to interpret the questions and respond correctly. Students were assured this was not a test and that their answers could remain anonymous, if they chose. They were encouraged to provide detailed answers and to be as honest and accurate as possible. The remainder of the hour was spent playing a yoga game and taking part in a visualization activity. Students participated in *Building a Story* (Tummers, 2011), a mindfulness game activity that helps develop communication skills within a community practice. For the closing relaxation, I chose a YouTube video with a child's voice narrative, *Guided Imagery Relaxation Script: Floating on a Cloud* (Inner health Studio, 2013). Due to technical difficulties, the video started and stopped shortly into the description. I quickly decided to use another guided script from Yoga Ed. called *Awakening Gratitude* (Bond & Caleda, 2014). As I read this visualization to students, I realized how appropriate this was to my yoga research. It asked students to be thankful and appreciative for someone or something in their lives. It became a perfect ending for my gratitude to my participants and everything they had given to me.

Before leaving, I encouraged students to create their own visualization and prepared a written outline for doing so. The directing teacher used it as a writing exercise with her proficient language arts group the following week. The use of imagery may be a powerful tool for student interest and relaxation, but I also wished to impart a sense of joy and pleasure in learning this meditative practice. This also reminded me the *desire-based framework* while designing my research.

According to Tuck (2010):

Desire is about longing, about a present that is enriched by both the past and the future; it is integral to our humanness. It is not only the painful elements of social and psychic realities, but also the textured acumen and hope. (p. 644)

Data collected from the directing teacher showed changes in 6 male and 3 female students.

Changes in strength were noted for 3 male students. Two male students improved balance; 1 female and 1 male student improved endurance; 2 male students developed better focus and concentration, and 2 different male students became more attentive. One female and 1 male student showed an increase in self-esteem and 2 additional students, 1 female and 1 male, showed an increase in self-regulation. Of these descriptive statistics, one male student showed a noticeable change in all four areas of strength, balance, endurance, focus and concentration.

Observations of students with medical conditions were noted. Both students were absent for the first three yoga practices, due to scheduled speech therapy sessions. Both females were in attendance during the second half of the 60 minute class and were able to participate in week 4.

The student with moderate hearing loss, engaged in the yoga practice but had difficulty with relaxation techniques. The student who had received a liver transplant, engaged in the practice but had difficulty achieving the poses.

Chapter 5 Discussion /Analysis

Yoga naturally provides and promotes community where negative behavior and disruptions may be minimized. Students were taught physical and reflective skills to practice and access to reduce their anxiety and stress. Individual practice evolved over the 4 weeks into a collaborative community class. My hope is that growth in self-esteem, self-regulation and other yoga skills will support and empower students to build upon a life of health and well-being (adapted from Yoga Ed. teaching philosophy, 2014).

Summary of Major Findings

Implementation of yoga practice in the classroom explored the mind/body connection and provided students with useful strategies to self-regulate and reflect. The yoga classroom became a peaceful environment free of testing and fear of failure. The practice was accessible to all students, was non-competitive and inclusive. Students were provided with individual modifications when needed and play became an integral part of our time spent together. Visualizations, deepened our meditation and relaxation exercise by allowing our young imaginations to share in their personal delight of fantasy, nature and wildlife.

Students demonstrated modest individual growth over the duration of the research study, but camaraderie between and among classmates flourished. Their eagerness was evident by their willingness to arrive early to assist with setting up yoga mats and props when needed; to contribute to discussion; to move courageously into yoga poses that were unfamiliar and to

honestly provide reliable feedback at the conclusion of our study. These were acts in which students learned to develop with awareness.

Comparison of Findings to the Literature

The primary concern in implementing the yoga practice in the classroom was developing caring and trusting relationships with our students. Similar to Garrett (2014), we used proactive rather than reactive strategies. Researchers created a relaxed yet fun environment with appropriate lighting, music and space to practice. We developed rules and routines such as removing shoes when entering the yoga classroom, sequencing the poses that were repeated weekly and requesting students to watch demonstrations before attempting the practice of new poses. We established caring relationships by asking students to trust our knowledge and expertise.

Instructors (researchers) implemented engaging instruction with a weekly theme and asked students to participate in activities with different learning styles. We addressed discipline problems appropriately, although the directing teacher was present to help mitigate disruption.

According to Harper (2010), compassionate communication is also a valuable classroom management strategy and should be more important than the yoga practice itself. It wasn't as important that poses were always practiced correctly, but that we listened to student cares and concerns. Harper (2010) also emphasized how repetition was essential to student learning as reflected in our weekly intention to build on the former poses that were taught during the previous yoga class.

Researchers planned each lesson with age appropriate material to inspire joy within each child.

According to Khalsa (as cited in Hagen & Nayer, 2014), yoga should be a unique and fun practice for children. The yoga games were overwhelmingly a favorite activity each week.

Students were able to “play” and at the same time learn and practice yoga poses. I believe the playfulness encouraged their imaginations and their ability to appreciate and enjoy the visualization part of yoga practice.

During the yoga intervention, a harmonious learning environment was created for all students and teachers, especially English language learners. Morgan (2011), emphasized the importance of the emotional and physical environment for these learners. Researchers initially addressed the accessibility for all students and the non-competitive nature of the practice. Using the Total Physical Response (TPR), students were given auditory, visual and kinesthetic instruction to help their physical practice. Repetition was integral to learning before introducing a new pose and instructors (researchers) were always available for assistance.

By week 3, expectations of both students and researchers had settled into a routine. Students appeared to be less anxious and as a result students entered more focused and receptive to the yoga practice. According to Brooks (2007) and a 6-week yoga intervention, classroom management generally improved, showing that even short interventions can produce successful outcomes.

Even though the students participated in only 4 sessions, they came away with a better body image and strengthened their social connections with peers while they learned how to breathe and use their energy more productively (Rozoff, personal communication, March 22, 2015)

During this same week, the directing teacher used a relaxation technique prior to a science exam:

The yoga poses and self-actualization exercises improved my student participants’ concentration and focus. The nasal breathing techniques as well as soothing music was

employed before a Science test the 3rd week of yoga instruction. The result was that 16 out of 24 students met or improved their score from a previous Science test (Rozoff, personal communication, March 22, 2015).

Data from Hagen and Nayer (2014) confirm that school-age children internalize the stress and anxiety of parents and other adults. These concerns lead to family, school and social pressure. These findings concur with the directing teacher and my observations that students are always “connected”. As valuable resources, technology consumes the attention of our youth and competes for their attention. Our weekly yoga practice was an opportunity for students to slow themselves down and explore their emotional state without any external distraction.

The physical yoga and visualization practice during our 4-week implementation was very similar to the 8-week mindfulness training that White ((2012), offered to fourth and fifth grade girls. She determined that quantitative data was not conclusive but recommended smaller studies, such as ours, using more qualitative research for authentic feedback.

Self-awareness and self-care are two life skills that Yoga Ed. curriculum (Bond & Caleda, 2014) offers students and teachers. This vision is aligned with the Transformative Life Skills model, developed at Niroga Institute in Oakland, CA, and introduced by Ramadoss and Bose (2010) which integrates stress management, self-awareness, self-regulation, and healthy relationships. For my 4-week yoga intervention, I included features of Yoga Ed. curriculum (Bond & Caleda, 2014) and Transformative Life Skills. Yoga Ed. breathing strategies, games, poses and visualization practices increased essential life skills such as focus and concentration, attention, self-esteem and self-regulation.

Limitations/Gaps in the Research

Limitations of this study included intervention time, scheduling, classroom interruptions, ELL modifications and measurement. Due to academic requirements and time restrictions, I was given the 60-minute window on Wednesday mornings between 10:30am-11:30am. Students were dismissed from each session to a 30-minute PE class. Feedback from student comments was unfavorable because they usually felt very relaxed and focused when leaving the yoga classroom, following the visualization practice. To counter the conflict, the directing teacher encouraged students to use their new strategies and tools while mastering their PE skills. The effects of the weekly practice may not have had immediate results, but I hoped the results would be cumulative.

There were some classroom interruptions and distractions as students returned from their speech therapy (sessions 1-3), as visiting aides were assisting individual students (session 1) and as the directing teacher addressed discipline problems. In addition, two male students have counseling sessions 1x week, which accounted for an occasional absence.

I did not account for modifications with English language learners and their families. Originally, three letters of consent were returned because parents/guardians did not understand the word, *opt out*. The Community Liaison for the Spanish speaking students called each family and discovered the misunderstanding. Also, the final focus group questions were presented only in English. Two students, with assistance from their teacher and fellow students, were able to use Google Translate to interpret the questions and communicate their answers.

Finally, I did not require names on the focus question responses. Knowing whether the replies were from a male or female student, may have provided more data. Eleven students wrote their

names on their focus questions; 8 girls and 3 boys. Conversely, students may have felt more inclined to provide honest and authentic responses without identifying themselves.

Implications for Future Research

Literature has revealed the lack of empirical research of yoga practice among youth, especially as it relates to developmental needs (Hagen & Nayer, 2014). I would suggest more studies among elementary youth, especially school-age boys, in the classroom with triangulation of data from students, teachers and parents. Educators have a social responsibility to offer students the tools to make better and healthier life choices. Just as critical, is to have the schools and school districts involvement and support. Life skills are essential learning tools for our future generation and teaching them is just as important.

Imagine... An entire generation of children where *most* of them are acting with self-mastery *most* of the time. What a powerful tipping point for a kind and compassionate world! (Bose, 2014).

Overall Significance of the Study

This study inspired my hope for yoga to become a mainstream activity in the classroom. The results were encouraging. When I received the responses to the study focus questions, I realized that breathing, movement and meditation can make a difference in children's lives. The careful and thorough planning and preparing for each four classes, could not have prepared me for such thoughtful responses to the post focus group questions. Since the completion of my classroom research, I have been invited back to present a short 20-minute yoga program to the entire school, where I look forward to sharing my knowledge and inspiration for future practice.

The directing teacher added this reflection on the effects of yoga practice on classroom management:

This healthy awareness that my students learned will be crucial to the proper development of their minds and bodies as they begin their adolescent growth (Rozoff, personal communication, March 22, 2015).

About the Author

The author, born and raised in Oakland, CA, has made Marin County her home for the past 25 years. A graduate of San Francisco State, she received her teaching credential from Dominican University in 2008 and subsequently accepted a teaching job as a second grade teacher in Novato, CA. A passionate yogi and Iyengar student, she received her certificate from Yoga Ed. in 2008 and has gratefully and gracefully imparted her knowledge of yoga and its benefits to her students. She is currently employed as an international flight attendant at United Airlines. When she's not traveling the friendly skies, she enjoys spending time with her biggest fans, her family and friends.

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