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Yoga in the Early Elementary Classroom: A Narrative Inquiry

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Author Biographies

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Abstract

This research focuses on the introduction of yoga into two elementary classes. The yoga sessions were delivered over the course of three months, and included a breathing practice, followed by the reading of a children's book, and then a yoga practice. Employing a narrative inquiry methodology, data were collected through three methods: student journals and related artifacts, classroom observations, and individual interviews. Using an inductive process and thematic coding, three common salient themes were constructed through the data collection: students' understanding and experience of yoga, story and yoga, and yoga in the world. Relying upon the lotus flower as a metaphor, a discussion of these results is offered. This discussion focuses, primarily, upon the following six broad topics: mitigating challenges, consistency and routine, body and mind, being versus doing, yoga and story, and yoga in the world. This discussion and subsequent conclusion offer affirming evidence and potential applications related to the introduction of yoga into early elementary classrooms.

Keywords: yoga, mindfulness, children, elementary education, narrative inquiry

Résumé

Cette recherche porte sur l'introduction du yoga dans deux classes du primaire. Les séances de yoga ont été offertes sur une période de trois mois et comprenaient une pratique de respiration, suivie de la lecture d'un livre pour enfants, puis d'une séance de yoga. En adoptant une méthodologie d'enquête narrative, les données ont été recueillies par trois moyens : les journaux des élèves et les artefacts connexes, les observations en classe, et des entrevues individuelles. Grâce à un processus inductif et un codage thématique, trois thèmes saillants communs ont émergé des données recueillies : la compréhension et l'expérience des élèves du yoga, le lien entre le récit et le yoga, et le yoga dans le monde. En s'appuyant sur la fleur de lotus comme métaphore, une discussion de ces résultats est proposée. Cette discussion met principalement l'accent sur les six sujets suivants : surmonter les défis, la constance et la routine, le corps et l'esprit, être versus faire, le yoga et le récit, et le yoga dans le monde. Cette discussion et la conclusion qui en découle offrent des preuves affirmatives et des applications potentielles liées à l'introduction du yoga dans les classes de niveau primaire.

Mots-clés: yoga, pleine conscience, enfants, enseignement primaire, enquête narrative

Introduction

Yoga is an art and a science of living that incorporates a system of disciplines for furthering an integrated development of all aspects of the individual, including the body, the mind, and the emotional bodies (Saraswati, 1990). Yoga includes *asana* (physical postures), *pranayama* (breathing techniques), and mental practices to help with *dharana* (concentration) and focus (Saraswati, 1990). The practices are designed to bring a sense of balance and health to the physical, mental, and social and emotional aspects of an individual (Ross & Thomas, 2010). In the West, Hatha yoga is the most common system of yoga. Hatha yoga encompasses several practices that include physical postures, mindfulness and meditation, and breathing techniques (Saraswati, 1990).

Yoga can be, and is, practiced by adults, youth, and children. Research suggests that yoga can help children concentrate, balance their emotions, develop mind-body awareness and self-regulation, increase their physical fitness, and reduce and/or respond to stress (Butzer et al., 2016; Saraswati, 1990; Stapp & Lambers, 2020). Robinson and Berezowski (2016) noted that students who participated in Yoga 11 (a government-approved physical education-equivalent course in K–12 school systems in Nova Scotia, Canada) had an increased level of self-awareness, confidence, and an overall positive experience, feeling more present, kinder, and happier. Given these findings, integrating yoga into the elementary classroom seems like a suitable way to support young students' well-being throughout their development in their school years. Though the literature demonstrates that yoga might benefit children, there is little research related to what is the best time to begin and how to skillfully integrate yoga practices into the classroom.

Extracurricular programs are one way to introduce yoga practices to children. However, they also prevent some children from participating as they sit outside the timetable. For example, some of the barriers that exist with this type of programming include a limited of number of spaces in an afterschool program, financial limitations when students are expected to pay, conflicts with other afterschool activities, and/or a lack of interest that may stem from a lack of knowledge about yoga and what it may offer (Khalsa, 2021). The implementation of school-based yoga programs can ensure that all students have access to the physical, mental, and social-emotional benefits that yoga has to offer.

Given this context, we recently introduced a school-based yoga program to elementary students, with a research goal related to understanding this introduction. More specifically, the purpose of this research was to explore the impact of a yoga program at the elementary level, to better understand how a consistent yoga practice—incorporated into "typical" classroom routines—might support students' physical, mental, and social-emotional development. The two primary questions that framed the research were: (a) What are the experiences of students participating in a school-based yoga program? and (b) What do students learn and understand about themselves by participating in daily yoga lessons?

Relevant Literature

What is Yoga?

Yoga is an ancient discipline that is over 5,000 years old (Iyengar, 2005a). The word "yoga" derives from the Sanskrit root word *yuj* and means to yoke, join, or connect (Iyengar, 2005a). Hatha yoga is one of the most practiced types of yoga in the West. It is a term for all styles of yoga that include physical postures, mindfulness and meditation practices, and breathing techniques

(Saraswati, 1990). Children's yoga is considered a type of Hatha yoga, and it often includes songs, storytelling, art, and/or journaling (Cohen Harper, 2019).

Health Benefits of Children's Yoga

The practices of yoga are designed to bring a sense of balance and health to the physical, mental, social, and emotional aspects of an individual (Ross & Thomas, 2010). There are consistent findings that suggest yoga has a positive impact on children's physical and mental wellbeing (Berezowski et al., 2017; Piotrowski et al., 2017; Reindl et al., 2020). More specifically, children routinely benefit from the practices of yoga in three core areas: mind-body awareness, self-regulation, and physical fitness (Butzer et al., 2016). Yoga helps children keep their bodies strong, their minds aware, and it makes them better able to concentrate as it stimulates their creative abilities while balancing emotions (Saraswati, 1990). In addition, its practices provide children with accessible methods to bring their body, breath, and mind into a balanced and healthy state (Cohen Harper, 2013).

Mental Health Benefits of Yoga

Children are experiencing higher levels of stress than ever before and, as a result, they are susceptible to higher expectations to succeed in school (Stapp & Lambers, 2020). They are exposed to increased stimulation through the internet, as well as other media and communication technologies (Hagen & Nayar, 2014). And the world continues to recover from a global pandemic—causing disruptions to routines and services, increased family stressors, social isolation, school closures, and changes to classroom learning that have had a significant impact on children's mental health (Gadermann et al., 2021). Within this milieu, research continues to demonstrate that yoga can be a helpful tool in addressing children's mental health challenges. For example, a similar school-based yoga program yielded findings suggesting elementary students were able to find improvements in their emotional regulation, calmness, relaxation, and self-acceptance (Broderick & Metz, 2009). These students also indicated that they were better able to manage stress and felt more empowered to handle stressful situations (Broderick & Metz, 2009). Notwithstanding the positive results found by Broderick and Metz (2009), their research study was one of very few that investigated the implementation of yoga within schools and, like most others, their research did not consider the early elementary context.

Social and Emotional Health Benefits of Yoga

The literature offers recurring findings related to mental health and social and emotional health that are sometimes challenging to separate. Nonetheless, when students reported that they were better able to regulate their emotions (Berezowski et al., 2017; Slovaceck et al., 2003), they also indicated that they experienced less stress and anxiety (Berger et al., 2009), suggesting a possible interconnected relationship. Yoga has a unique ability to integrate the physical and the mental, and research has suggested yoga-based activities for children has the potential to reduce stress and anxiety, increase health and wellness, and teach emotional regulation practices (Cohen Harper, 2019). Relatedly, Butzer et al. (2016) discovered similarities in social and emotional learning interventions and yoga-based interventions by comparing school-based social-emotional learning models with school-based yoga interventions. Children noted that yoga enhanced or improved self-awareness, self-management, emotional regulation, self-regulation, and social skills. In another study, school-age children felt calm and relaxed after participating in yoga, while also noting that yoga created a fun and joyful learning environment (Laxman, 2021).

Physical Health Benefits of Yoga

While yoga is more than a system of exercise, in the West most yoga that is being practiced includes an element of physical postures. Butzer et al. (2016) discovered that yoga may enhance several aspects of children's physical fitness, such as respiratory function, exercise adherence, and reduced obesity risk factors. Similarly, Slovacek et al. (2003) noted that participants demonstrated significant improvements in physical fitness tests, including gains in flexibility, upper body strength, and aerobic capacity-their fitness levels were better than the average fitness levels of other students who did not participate in a yoga program. Additionally, Kim et al. (2016) presented a yoga project for her preschool students that incorporated breathing practices, songs, and physical postures. The yoga project helped children develop skills in balancing and body control, while promoting imagination and collaboration between their peers. Children noted the importance of exercise and how yoga helped them make their bodies healthy and strong (Kim et al., 2016). Moreover, another study for children ages 6-8 years old investigated the effects of a yoga program in physical education classes. The results yielded positive changes in children's motor abilities, including balance, strength, and flexibility (Folleto et al., 2016). This research study investigating yoga as a part of physical education instruction by Folleto et al. (2016) was one of two (the other being Chen & Pauwels [2014]) that investigated yoga in early elementary education. Clearly, given this limited literature, additional research in the area is warranted-particularly research related to all dimensions of wellness, in-class yoga, and the integration of related literature.

Students' Experiences in School-based Yoga

There is limited literature related to students' experiences in school-based yoga programs. One such study investigated high school students' perceptions of their high school yoga course (Berezowski et al., 2017). That research indicated that a high school yoga course helped students feel happier, kinder, and more self-confident (Berezowski et al., 2017). Chen and Pauwels (2014) also found that students who participated in a school-based yoga program noted positive changes in their mental wellbeing, physical wellbeing, and interpersonal growth. The most notable positive changes included feelings of joy, increased self-esteem and confidence, better sleep and concentration, and improved interpersonal relationships (Chen & Pauwels, 2014). Lastly, Stapp and Lambers (2020) examined the impact of mindfulness-based yoga in a fifth-grade class and found that students had a decrease in their stress and anxiety. Stapp and Lambers reported that the mindfulness-based yoga program was a positive experience for students, and it promoted a positive classroom environment for effective learning to transpire.

Teaching Yoga through Story

In addition to the core components of Hatha yoga (i.e., physical postures, breathing practices, and meditation or mindfulness practices), a balance of routine and creativity, along with repetition and new activities, are essential components of a children's yoga class (Cohen Harper, 2019). In her book *Storytime Yoga*, Solis (2006) suggested that the combination of storytelling and yoga is one way to help children relate to themselves and to others. Children's literature is a powerful medium for understanding the world (Diakiw, 1990). In addition to improving children's literacy (e.g., writing, oral, and listening skills), stories help children foster relationships and empathy (Solis, 2006). Yoga is a useful tool to help children develop a healthy relationship with oneself and with the world (Kishida et al., 2018). Combining these two traditions (yoga and storytelling—or practices and arts) is a natural way to engage children in the practices while empowering them with tools as they develop.

Theoretical Frameworks

Three theoretical frameworks were central to this research: Coe's (2016) Curriculum of the Heart, Clandinin and Connelly's (1992) Teacher as Curriculum Maker, and Iyengar's (2005a) Yoga *Sadhana*.

Curriculum of the Heart

Curriculum of the Heart is a curriculum theory proposed by Coe (2016) with the intention of creating a more balanced curriculum and a healthier education system. Four components— thinking, growing, feeling, and connecting—contribute to a balanced curriculum and learning environment, furthering students' health and happiness. Elements of yoga support Coe's four elements of a balanced curriculum. For example, *vrksasana* (tree pose) is a pose that fosters focus, balance, and strength. If a student experiences these qualities in a yoga posture, they may be more likely to feel focused, balanced, and strong in their learning environment. In addition, practicing *vrksasana* and feeling your feet on the ground may serve as a reminder of the many interconnections that we share in the world; at the same time, falling out of the pose and beginning again fosters an understanding of persistence rather than perfection. This theory helps contribute to the students' narratives beyond the walls of the classroom and into their lives.

Teacher as Curriculum Maker

Teacher as Curriculum Maker (Clandinin & Connelly, 1992) is a theory that suggests that the teacher is an integral part of the curriculum, both constructed and enacted in the classroom. Clandinin and Connelly (1992) suggest that curriculum is an account of teachers' and students' lives over time and, as a result, the teacher not only teaches the curriculum, but also co-creates the curriculum with their students. In children's yoga, stories and metaphors are used to help children understand and embody the physical movements to help them better relate to the elements of the practice, which in turn serve in helping them better relate to themselves. As students co-create the curriculum with their teachers as described in the theory Teacher as Curriculum Maker, their experiences of how they engage in yoga in the classroom may also indicate what they need to best embody the practices of yoga and, in turn, communicate their understanding to their teacher.

Yoga Sadhana

Iyengar's theory of Yoga *Sadhana* (2005a) describes yoga as a study and an endeavour of practice, a thoughtful journey, or an intentional practice that takes consistency and repetition. Implementing yoga into the classroom as a daily practice fosters this consistency and repetition; it also removes barriers that may prevent some children from otherwise participating. The theory of Yoga *Sadhana* suggests that a daily yoga practice at an early age may help children thrive in all areas of development. Yoga *Sadhana* is rooted in story. That is, traditionally, yoga was passed from teacher to student through story. This theory helps to integrate traditional history and roots of yoga with elements of contemporary narratives of students.

Research Methodology: Narrative Inquiry

Narrative inquiry is a methodology that aims to capture the ways in which humans experience the world and share their experience through stories (Connelly & Clandinin, 1990). Though stories are often used in qualitative research to make sense of one's experience, narrative inquiry is much more than storytelling (Clandinin, 2006). Clandinin et al. (2007) use three

commonplaces to clarify the distinct characteristics of narrative inquiry. These commonplaces include temporality, sociality, and place. These commonplaces can be used to understand how students relate to their ongoing transitions and changes (temporal), their relationships with each other and with themselves (social), and with their environment (place). The primary researcher used these commonplaces as the foundation of inquiry for understanding students' experiences. As students shared elements of their environment, relationships, and temporal changes in retelling their experiences in their interviews, these commonplaces became an integral aspect of the participants' narratives.

Narrative inquiry complements this study of students' experience with yoga, as this methodology, and its emphasis on imagery, metaphors, and stories are often used when teaching yoga, to help students understand, and embody, the qualities of the characters or images. This may help students make sense and relate to a particular theme or lesson woven throughout the yoga class. The stories and experiences of the participants are one way to help us make sense of, and to better understand the impact that yoga may have on their mental, physical, and emotional health (e.g., see Merriam & Tisdell, 2016) along with how they can best integrate the practices into their lives. Further, narrative inquiry uses listening and observing to help the researcher best understand, interpret, and construct a narrative to bring meaning to the participants' experiences (Clandinin et al., 2007). Listening and observing to participants is an integral component in understanding their experiences.

Research Methods

Participants

The participants were six students, aged five and six years old (three from each of two teachers' classrooms) from a private school in a Canadian urban centre. The teachers at this school received an email from the principal with an "expression of interest to participate" in daily yoga practices using the online program, *Breathe.Read.Yoga.* Teachers were informed that each class ranged from 5–25 minutes and that each class included a breathing practice, a story read aloud, and yoga postures to bring the story to life. They were also provided with a short sample of the class. Two teachers expressed interest in implementing the yoga program. One teacher taught a split Primary and Grade 1 class, and the other teacher taught a Primary class. Their students were selected after an expression of interest letter was sent out to their parents/guardians. The six students who were chosen to participate were randomly selected. Consent and assent were given by participants and their parents/guardians.

Program Description: Breathe.Read.Yoga.

Breathe.Read.Yoga. is an online yoga program designed for the elementary classroom. The program consists of 30 classes of an average of 25 minutes in length. Each class begins with a breathing practice, followed by the reading of a children's book, and then a yoga practice to engage the students in movement—to embody the story through the practices of yoga. Each story has a theme or key learning idea to embody, to help teachers integrate the classes into their daily lessons. The literature used is broad and intended to be culturally representative, spark self-inquiry and empathy, and help students make connections and build relationships with themselves and others. Leanne designed this program during the COVID-19 pandemic when in-person yoga classes stopped. Leanne has been teaching yoga and mindfulness-based practices to children in schools and as professional development to teachers for over 16 years in addition to facilitating children's

yoga teacher trainings. The children's literature used in the program includes, among others, the following:

- EveryBody's Different on EveryBody Street by Sherree Fitch,
- Eyes That Kiss in the Corners by Joanna Ho,
- Last Stop on Market Street by Matt De La Pena,
- Parker Looks Up: An Extraordinary Moment by Parker Curry and Jessica Curry,
- The Grateful Book by Angela Kohler,
- The Proudest Blue: The Story of Hijab and Family by Ibtihaj Muhammad, and
- We are Water Protectors by Carole Lindstrom.

Data Collection

Data were collected through three methods: student journals and related artifacts, classroom observations, and individual interviews. An overview of these three data collection methods is offered below.

Student Journals and Related Artifacts

Students documented their reflections—an aspect of yoga called *svadhyaya* (self-study). This was an important part of the data collection as the students' reflections helped them articulate their experiences. The students were prompted to journal and draw a picture periodically throughout the research period. The teachers prompted the students' journaling with sentences such as, "Yoga makes me feel...." Students were also given opportunities to draw their favourite yoga pose or to draw themselves doing yoga. One teacher prompted her class to write a yoga book.

Classroom Observations

Given that the purpose of this research study was to better understand the experiences of yoga in the classroom, observing students engaging in the practice was an important aspect of the data collection. Both classes were observed three times throughout the research period (during weeks two, seven, and 12 in one classroom and weeks two, seven, and 13 in the other classroom). In both classrooms, the first observation was completed online via Zoom because of COVID-19 restrictions.

Field work journals were used to record students' interactions, participation in yoga, and conversations with each other. Observations followed Rosenberg's (2003) suggestion to focus on what can be recorded by video. For example, rather than noting the children had fun and felt confident practicing yoga, the observer noted that three of the children were smiling and laughing while holding *navasana* (boat pose) for three breaths. In the reflective component (Merriam & Tisdell, 2016) of the observer's field notes, assumptions, insights, and reflections were also recorded.

Individual Interviews

Individual interviews with students were used to help understand their experiences of yoga and how they applied their experiences into other areas of their life. All the participants (six students [three from each class]) were interviewed three different times throughout the 12-week research study period. In one classroom, participants were interviewed during weeks two, eight, and 13. In the other classroom, participants were interviewed during weeks three, eight, and 13 (the research occurred for 12 weeks over a 13-week period due to this teacher's absence because of COVID-19). The first set of interviews in both classrooms was completed over Zoom due to COVID-19 restrictions in place. The second and third interviews were completed in person.

One of the interview questions asked participants to use photos to describe yoga. This was used to help students identify qualities of a student and qualities of a teacher. In a yoga class, qualities of nature are often used to describe and relate to a particular pose or sensation. For example, in tadasana (mountain pose), one's feet are planted on the earth while the head lifts towards the sky (Iyengar, 2005b). One's experience of mountain pose could be grounding, while also being expansive and open. Pictures of objects and things in nature were used for their interviews as they help to spark qualities of yoga for the participants to identify with and support their descriptions. In the first and second interviews, photos were provided of objects and things in nature. The pictures were of things such as trees, rainbows, butterflies, balloons, the ocean, rocks, and gardens. For the third and final interview, participants were asked to draw photos to describe their yoga experience. Pictures of emoji faces to help students identify with their emotions were also used. Participants were asked to pick one that represented how they feel when practicing yoga. In the third interview, students drew an emoji that represented their experience. The participants were often excited to tell stories about yoga and describe their experience. Despite their limited yoga vocabulary, they were eager to share their experiences and what they liked and did not like. The images helped prompt discussions and the emojis were a helpful tool to enable them to identify their feelings.

Data Analysis

Data analysis is an ongoing process of making sense of the data collected (Merriam & Tisdell, 2016). We used the metaphor of the lotus flower, as part of the data analysis process, to help interpret and represent emerging themes across participants' narratives as they described their yoga experiences. In yoga philosophy, the lotus flower is often used as a symbol to represent how we live in our world—as it grows in muddy water while the flower shows no trace of the murkiness (Iyengar, 2005b). The muddy waters represent the challenges, and the fully bloomed petals represent areas of growth that the students experienced by participating in a school-based yoga program.

Throughout the data analysis, we listed as many codes as possible that emerged from students' experiences of yoga through their observations and interviews. The process of creating themes, based on the clustering of open codes, is an inductive process (Merriam & Tisdell, 2016). After each observation and interview, time was set aside to "have a conversation with the data" (Merriam & Tisdell, 2016, p. 204). We reviewed, reflected, and wrote memos, questions, and comments. After each interview and observation, open coding allowed us to reflect on the data initially, and axial coding enabled us to narrow the categories for the purposes of developing themes, keeping in mind the codes from previous interviews and observations and developing them appropriately. These formed our themes which we consistently compared from each participant interview and observation. This comparative process helped to narrow and refine our themes in relationship with the narrative inquiry commonplaces of temporality, sociality, and place (Clandinin et al, 2007). For example, throughout the research process, the COVID-19 pandemic shaped participants' narratives as they moved from online to in-person (sociality/place), wearing masks to not wearing masks (sociality/place), as well as ongoing scheduled changes (temporality); all these changes impacted how and for how long students practiced yoga in a day. These changes are represented in the muddy waters surrounding the lotus flower. The narrative inquiry commonplaces (temporality, place, and sociality) and the theories (Curriculum of the Heart, Teacher as Curriculum Maker, and Yoga Sadhana) nested within the metaphor of the lotus flower enabled us to construct well-rounded narratives of participants' experiences in a school-based yoga program.

Ethical Considerations: Establishing Credibility and Trustworthiness

It was important for us to develop and build a trusting relationship with the students, given the relational ethics of narrative inquiry (Clandinin et al., 2017) and our role of representing the participants' experiences through their narratives. We organized an initial meeting with the students prior to the research commencing. This meeting served as an introduction and a discussion opportunity about the *Breathe.Read.Yoga.* program, so that we might answer questions about the research that the students may have had. The meeting took place over Zoom because of the COVID-19 restrictions. We were initially worried that the social context of an online introduction would be a limitation to developing a relationship with the students. This worry dissipated when we met in person for further interviews as students seemed comfortable and eager to share their experiences, connected to the familiarity of meeting from initially online, and in the online presence of the *Breathe.Read.Yoga.* classes.

Given that we were the primary instruments of data collection and analysis as the researchers (Merriam & Tisdell, 2016), we were aware that the interpretations of the observations and interviews derive from our own reality. While this is understood to be a strength of qualitative research, we used several strategies to ensure credibility and trustworthiness.

Transparency

We did not know the participants prior to engaging in the research and we were transparent with Leanne's role as a yoga teacher and teacher trainer.

Bias

We named our bias and belief that the research is worthy and significant as professionals in the field. We approached this bias by purposefully seeking data to challenge our expectations, a strategy identified as discrepant case analysis (Merriam & Tisdell, 2016). We explored literature that both supports and challenges our belief that yoga is of benefit in an elementary classroom versus an afterschool or lunch hour program. For example, certain religions suggest that the mainstream practices of yoga and meditation may have religious beliefs. This has created ongoing conversations and debate about yoga being taught in schools, and whether it is taught as a secular or religious exercise (Brown, 2019). Other barriers that challenge the idea of integrating yoga in the classroom are space (both the size of the space required and the lack of a clean space to practice in), the time required for teachers to invest in training or practice, the time required to schedule yoga into their daily schedule, the quality of the instructors or the instruction, scheduling, and communication issues (Dariotis et al., 2017).

Triangulation

To ensure the credibility and trustworthiness, we used triangulation of data (Merriam & Tisdell, 2016). Triangulation creates connections of multiple sources of data. We used data from interviews, observations, and the participants' journals and related artifacts. We cross-referenced these methods and noted emerging themes and findings throughout the process.

Adequate Engagement

We engaged with the participants until the emergent findings of the data collected were saturated and stopped when the participants' responses were repetitive and we were no longer collecting new information. We conducted member checks (Merriam & Tisdell, 2016) as another strategy to ensure credibility and trustworthiness and to help to ensure the narratives we were telling were reflective of the participants experience. In each interview, we repeated what we heard the students say and provided them with opportunities to clarify or modify their responses. In addition, we frequently asked the participants if we interpreted their responses appropriately and accurately.

Results

Below is a summary of the results based on the data collected. Three common themes were identified throughout the data collection, and the results are summarized in these areas: students' understanding and experience of yoga, story and yoga, and yoga in the world. The themes collectively represent the students' stories of a school-based yoga program.

Early Elementary Students' Understanding and Experience of Yoga

In their interviews, students defined yoga as "something that makes you feel calm and peaceful" (Sydney), "doing fun poses" (Zack), and "exercise that helps your muscles" (Kayla). Most students emphasized breathing as an important aspect of yoga. For example, one student shared how breathing helped when she felt frustrated (Sydney), another student said that breathing "helped me feel calm" (Zack), while others commented on their favourite breath ("bumblebee breath"; Lily) and how it helped them to slow down and feel good. Most students described feeling calm, peaceful, and relaxed while doing yoga. For example, Sydney shared how yoga helps her to "get her mind off of everything that would go bad in the day." She referenced the zones of regulation, a colour-coded social emotional program that the school used to help students understand their emotions. She explained that her class used this program, and she shared that doing yoga put her in the "green zone." The green zone represents focused, happy, content, and calm. Summer also used the words "calm and ready" to share how she felt after yoga, and she used "happy" and "calm" to describe her experience. She emphasized that she felt good when she slowed her breathing down and further explained that putting her hands at her heart centre "just feels good."

Students shared that yoga was a welcome challenge and that it built upon their physical strength while empowering them. For example, Cooper explained that yoga is "something that calms you down but also makes your muscles stronger." Another student (Zack) shared how he loved the challenge of the hard poses, and Lily described feeling happy and excited, along with a feeling of accomplishment after doing yoga because it is "really good exercise." Kayla named her challenge with balancing postures, but also indicated that she felt proud when she was able to balance without falling and commented that the poses become easier the more she did them. Summer liked doing some of the postures because "they were hard, and I like hard things." She used eagle pose and crow pose as examples of challenging postures but ones that she liked because she liked the challenge. Relatedly, students were observed attempting balancing postures such as *vrksasana* and *natarajasana* (dancer's pose), sometimes falling out of the posture and trying again. Some students said that they were "easy" while other students said they were "hard."

Yoga was also enjoyable for the students. Zack shared that the poses were fun for him, and Lily defined yoga as fun, specifically the animal poses. Kayla also agreed that the animal poses were some of her favourites. Most students named downward facing dog or *shavasana* (corpse or relaxation pose) as their favourite pose. Kayla shared how resting in *shavasana* helped her to take her mind off things and helped her feel calm. Another notable feeling that Sydney and Summer felt was the feeling of love when doing yoga. Sydney shared that it was "like wrapping your arms around yourself as if you are giving yourself a hug" and continued to explain "it feels like you are hugging your mom and your family."

The length of time was also a critical factor in maintaining students' attention and focus. In both classes, observation field notes indicated students were consistent in their ability to maintain their attention for 15–20 minutes. *Shavasana*, the final closing posture that invites students to rest in stillness, was also helpful in guiding students' focus back. They were observed resting in stillness, placing their hands on their belly, and focusing on their breath during their time in *shavasana*.

In both classes, students were observed moving their desks to the side to create space for yoga. This became part of the routine in preparing for the class. One class (Primary and Grade 1) used yoga mats while the other class did not. Students were observed intentionally choosing a space where they could practice free of physical and other distractions. On occasion, the students' teachers would prompt them to consider their choices to ensure their friends nearby would not be distracting to them.

Students' Experiences of Story and Yoga

Breathe.Read.Yoga. sessions consistently begin with a breathing practice. Students were observed listening attentively and focusing on their breathing. Three minutes of breath awareness was the optimal length of time that was observed; any longer and the students started to show signs of restlessness. During the breathing period, students were observed closing their eyes while following the cues such as opening and closing their arms while they imagined breathing air into a balloon, imagining the rise and fall of ocean waves, or making the humming sound of a bumblebee.

The story was the second component of *Breathe.Read.Yoga*. A story was read aloud to students which captured their interest and attention. If students started to lose their focus towards the end of the breathing practices, the story consistently brought them back. In every observation, students in both classes were engaged in the story; it held their attention consistently. They watched and listened to the whole story without disruptions or distractions. In their interviews, students shared that the stories "made yoga fun" and it "helped them do yoga" (Lily). Another student described doing yoga to the story as "jumping in the book" (Sydney); she imagined being the characters and the story helped her feel calm.

The final part of the yoga program was yoga postures using the story to help guide the children's movements. The yoga postures helped to bring the characters in the story to life. Students were observed following the instructions and they mirrored the yoga postures as best as they could, sometimes exploring different postures on their own—a sign of creative exploration in yoga that is appropriate for their age and developmental ability.

Students' Experiences of Yoga and their Connections in the World

In both classes, students were provided opportunities to discuss their experiences and create connections beyond their experience on their yoga mat. For example, in one observation session, just before Earth Day, students practiced yoga to the story *The World is a Wonderland* (Tillman, 2018). At the end of the story, the teacher prompted a conversation and asked them "What makes our earth wonderful?" The students responded with "flowers," "trees," "the ocean," and "animals."

Journals and related artifacts were another way that students created connections to yoga and their world. Each class journaled and created unique artwork throughout the research period. This included drawings of yoga postures and animals that reminded them of yoga postures, creating their own yoga books, and naming things in nature that reminded them of yoga. Animal poses inspired some of the students to draw animals using water colour. For example, Summer drew a deer, Lily drew a bird flying in the sky, and Zack drew a dinosaur (see Figure 1).

Figure 1

Summer's Drawing of a Deer, Lily's Drawing of a Bird, Zack's Drawing of a Dinosaur.



In one of the classes, students were learning how to become authors and they each created their own yoga book. In their books, the students defined yoga, described how yoga made them feel, wrote about a pose that reminded them of an animal and a pose that reminded them about something in nature. Their writings included stretching, doing poses, breathing, restful, peaceful, relaxing, exercising, quiet, beautiful, entertaining, good for you, and fun. The words they wrote to describe their feelings were calm, peaceful, explored, happy, good, tired, strong. The objects in nature that reminded the students of yoga were a flower, a tree, a rainbow, and a mountain.

In one of their journals, students were asked to draw how they feel when they do yoga. Cooper drew a picture of a dragon, his favourite pose, and wrote "yoga makes me feel focused!" (see Figure 2). Kayla drew a picture of her resting in *shavasana* surrounded by hearts and wrote "yoga makes me feel calm!" (see Figure 2). Summer drew a picture of herself standing in *tadasana*, framed in hearts with more hearts surrounding the page (see Figure 2). She wrote "yoga makes me feel happy." Other students drew pictures of themselves in their favourite yoga poses, including *tadasana*, *sukhasana* (simple seated pose), and *vrksasana*. Many students also included hearts in their drawings. The feelings that students wrote under their drawings included calm, awesome, good, exciting, hungry, happy, and focused.

Figure 2

Summer's Drawing in Mountain Pose with her Hands at Heart Centre Feeling Happy, Cooper's Kayla's Drawing of herself in Savasana (and Feeling Calm), Drawing of a Dragon (and Feeling Focused), Summer's Drawing of herself in Mountain Pose.



Discussion

The discussion below is presented in the form of a narrative that uses the metaphor of a lotus flower (see Figure 3). The roots of a lotus flower grow downward towards the mud in a body of water. As the seed develops and grows, the lotus flower eventually rises to the surface of the water and the petals blossom to their fullest in the day and close underneath the water's surface at night. The growth of a lotus flower is not unlike the growth and development of a child and how they experience the world. The three themes that were identified in the results (students' understanding and experience of yoga, story and yoga, and yoga in the world) emerged from muddy waters to form blossoming petals. The metaphor of the muddy waters is used to represent the challenges and learnings the students experienced that have led to growth and awakening while engaging in a school-based yoga program. The blooming petals represent the benefits and impact of a school-based yoga program that may contribute to students growing, developing, and blooming to their fullest. Below, we discuss and share the narratives of the students' experiences of a school-based yoga program through the imagery of a lotus flower.

Figure 3



The Lotus Flower as a Metaphor for School-Based Yoga Program Results

Muddy Waters: Challenges that Yoga Helped Students Mitigate

The challenges that the students experienced while participating in a school-based yoga program are represented by the lotus flower and its ability to grow from the mud and flourish to its fullest. Students navigated temporal challenges of the COVID-19 pandemic, an unprecedented and fragile time that required tools and practices for resilience to flourish and survive. For example, schools opened and closed, learning moved from in-person to remote and returned to in-person, and mask mandates were in (and out of) place. This led to students also having to adapt to scheduling changes and changing lengths of time that could be allocated to practice yoga. While students did not articulate an optimal time for their yoga practice, it was observed that for most students, 15–20 minutes (inclusive of breath work time) seemed to be an optimal length to maintain their interest and attention.

Like the lotus flower that grows from its own seed in the mud, when it reaches the surface of the water, its leaves settle into place. But as other flowers surface, or the water below moves, the leaves overlap each other. Similarly, the students in each class started their yoga practice in their own space, but as the physical practice began and they started to move, they would sometimes overlap each other's space. One class used yoga mats to define their space, while another class did not. All students readily adapted to temporal changes within their classroom environment, and they adapted to the space available. Students had the opportunity to connect with each other and explore the postures, even if it meant students were sometimes falling over towards a classmate. The helped ensure that the class was playful, fun, and exploratory, as yoga should be at this age.

Blooming Petal 1: The Importance of Consistency and Routine

The petals of the lotus flower open during the day and close during the night. This pattern of consistency mirrors one of the primary benefits noted by students: a *daily* practice. Students routinely looked for yoga on the board in their schedule each day. This aligns with Iyengar's (2005a) theory of Yoga *Sadhana*, which emphasizes the benefit of consistent practice and repetition. One student commented that the more she did yoga, the easier it became. Included in the importance of routine was the sequence of the *Breathe.Read.Yoga*. program. The students became familiar with the three elements and sequence—breathing, followed by a story, then a yoga practice, which helped them prepare for their practice each day. Just as the lotus flower blooms in concert with the sunrise and rests when the sun sets, the students seemed to thrive on the consistency and routine of their daily practices of breathing, a read aloud story, and yoga postures to bring the story to life.

Students took pride in the organization of the classroom just as one would in preparation for a flower to bloom in a garden. This is a unique finding that was not emphasized or noted in the literature. The set-up of the classroom in preparation for their daily yoga practice became an important integration of their daily routines. How they moved the desks and the intentional choice for where they would practice helped give students a sense of autonomy and prepared them for yoga.

Just as the petals of the lotus flower routinely open and close each day and night, the students developed a routine where they took pride in unfolding their mats and moved the class so that they could find their space. At the end of the practice, like the petals of the lotus flower that close at the end of the day, they folded up their mats and put the classroom back in place—each day and each practice, a new opportunity to grow, develop, and flourish to their fullest.

Blooming Petal 2: Body and Mind Connection

One of the most repeated mantras in yoga derives from the Tibetan Buddhist practice, *om mani padme hum*, which can be translated, "homage to *mani* the jewel in the lotus (*padma*)" (Little, 2016, p. 258). This mantra generates a connection with the body and the mind through compassion, kindness, and equanimity. Each student described a connection to their body, and to their emotions or feelings in their definitions of yoga. This extends upon the literature and the three core areas (mind-body awareness, self-regulation, and physical fitness) that Butzer et al. (2016) noted that children routinely benefit from. Most students identified the breath as an integral part of their yoga practice. The awareness of the breath is often what differentiates yoga from other forms of physical activities such as stretching, dancing, or gymnastics. Our research suggests that in addition to the positive impact that yoga has on the physical body (Folleto et al., 2016), the connection to the body and the mind can be an important realized benefit of a daily yoga practice for early elementary students. The students' ability to identify the value of the breath and how it helped them feel calm and peaceful underscores its importance in developing the connection between the body (physical awareness) and the mind (mindfulness or awareness).

Students used feelings or a bodily awareness to describe and define yoga, such as feeling calm or building strong muscles. All the students described their experience of practicing yoga using the emotions calm, peaceful, happy, and relaxed. This is similar findings in the literature where students noted feeling calmer and more relaxed after participating in yoga (e.g., see Broderick & Metz, 2009). Some of the students also commented on the physical elements of stretching, exercise, postures, and strength. The importance of yoga helping children make their bodies healthy and strong was also a key finding in the literature (e.g., see Kim et al., 2016). Their ability to communicate this connection and the feeling that they have accompanying it is the

beginning of their relationship with themselves. It is an indicator of their self-awareness and their ability to make connections with their body, their mind, and their heart (social-emotional development and awareness). Like the lotus flower receptive to the light of the sun to bloom, the students' comments demonstrated a strong sense of self-awareness, the ability to communicate their emotions, develop empathy, and be kind to themselves and others. This extends upon the literature where children also noted that yoga helped to enhance their self-awareness, emotional regulation, and social skills (Butzer et al., 2016).

Creating a feeling of calm was highlighted by all students. Given that the literature suggests that children are experiencing higher levels of stress than ever before (Stapp & Lambers, 2020), the students' experiences of feeling calm and relaxed is reassuring and promising. This suggests a daily yoga practice may help to reduce their overall stress and increase their ability to self-regulate. Students in Primary and Grade 1 were able to share that they are better able to reduce stress and anxiety through their words and drawings, indicating that they felt calm and relaxed after practicing yoga. The literature highlighted that children who are better able to regulate their emotions are also more likely to reduce stress and anxiety (e.g., see Berezowski et al., 2017; Berger et al., 2009; Slovaceck et al., 2003).

Blooming Petal 3: Being Versus Doing

One student commented how yoga helped in "getting your mind off of everything." This comment from a Grade 1 student is telling in that children as young as six years old are finding that their minds are racing, and they can be easily caught up in "doing." This may be a Grade 1 student's way of articulating that yoga helps them to "be" present. Another Grade 1 student explained that yoga helps her "feel calm, not fragile or frustrated." Many students commented that *shavasana* was their favourite posture. Traditionally, *shavasana* can be one of the most challenging postures, especially for children as it requires stillness and silence. The idea of children being present was not articulated specifically in the literature. However, it is like Chen and Pauwels's (2014) findings where students noted positive changes in their mental well-being, physical wellbeing, and interpersonal growth, as well as Stapp and Lambers's (2020) findings, where they found that a mindfulness-based yoga program promoted a positive classroom environment for effective learning to transpire. An effective learning environment could be the result of students' ability to be more present. The students' comments may also be an indicator of their need and longing for stillness and ways to "be" to avoid getting caught in all the things that they must "do."

Blooming Petal 4: Yoga and Story

Just as the lotus flower can be used to help us understand our own growth and transformation because of the way it grows down into the muddy waters and up into the light of the sun, using stories to help children practice yoga can help them both reflect on themselves and better understand and develop empathy and relate to others (Solis, 2016). Using story combined with yoga was one of the favourite components of the yoga program for all students. The stories helped children focus, relate to characters, and, as a result, each other. This fostering of relationships with both self and others connects to the sociality commonplace and has an impact on how students see and relate to themselves and others.

Coe (2016) uses the element 'thinking' in the theory Curriculum of the Heart to suggest that students learn ways to embrace diversity, in terms of different needs and interests of others, in their learning. Stories with diverse representation are one way to foster this type of thinking. After practicing yoga to the story *Eyes That Kiss in the Corners* by Joanna Ho (2021), one student said, "she has eyes that look just like me." The story is about a young Asian girl who discovers her eyes

look different than others, but she discovers and becomes proud that they are just like her mother's, grandmother's, and her little sister's. Another student shared the feeling of "jumping inside the book" and that imaging herself as the characters in the story "helped her keep calm." Another student shared that his favourite yoga class was with the story *How the Elephant got its Trunk* by Andrea Florens (2022). He was curious and proud to make parallels with his previous knowledge about crocodiles.

Students agreed that the story was helpful in teaching them yoga postures as well, as it helped them focus. And, possibly the most important variable for children's yoga, all students said that the story made yoga fun. For some students, using a story brought them inside the book where they could imagine they were the characters.

Blooming Petal 5: Yoga in the World

A bloomed lotus flower is one that has rooted itself deep into muddy waters while also grown and bloomed to the light and warmth of the sun. Coe (2016) uses 'connection' as an element in her theory Curriculum of the Heart to describe this need for students to understand and learn how human beings are connected to the people and the places with whom they share the world so that they can develop healthy and positive relationships with themselves, with others, with the earth, and with the environment. This also refers to both the place and social commonplaces as the need for students to develop an understanding of our interconnections reminds us of the importance of developing healthy relationships with oneself and with others (social), as well as with the environment (place). The literature also supports this idea that yoga is a useful tool to help children develop a healthy relationship with oneself and with the world (e.g., see Kishida et al., 2018).

The students drew images that reminded them of feelings that they had in yoga. One student chose a tree because she felt calm and confident. Others chose the ocean because it helped them feel happy and calm. These connections appear to indicate that students are developing self-awareness, a connection to themselves and others, and that they can understand their emotions. The ability for students to connect to feeling happy and calm after a yoga practice with images of environments beyond the classroom walls is promising in suggesting that children may also feel less stressed in other environments and situations because of the self-awareness and emotional regulation that results from a regular yoga practice. One student used balloon breathing to calm himself down after he fell in the playground on ice, and another student would practice the bumblebee breath periodically at her desk because it helped her feel calm and focused.

Limitations

The lotus flower represents the participants' narratives of their experiences in participating in a school-based yoga program. Just as muddy waters describe their challenges, we also encountered limitations in the research. Like the participants' experiences, we had to navigate the challenges of the COVID-19 pandemic. The initial interviews and observations occurred online which made it challenging to connect with participants. In addition, the research occurred in a private school; we would like to explore further research in public schools with various demographics. Finally, our research focused on early elementary school-aged children, limiting our ability to comment on the development of children as they experience and practice yoga from early elementary to upper elementary. A longitudinal study may be considered to capture and research students' experience of yoga throughout their elementary education. Additionally, future related research might also aim to engage with a greater number of participants, enabling the possibility for more input and other possible conclusions.

Conclusion

The practice of engaging young children in yoga and yoga-related activities as part of schooling is a relatively rare occurrence. And, unsurprisingly, research related to this infrequent practice is also similarly limited. This research adds to the limited body of literature related to yoga in schools and, perhaps more importantly, adds to the near-absent body of literature related to yoga in early elementary classrooms. This is timely research, and it answers the calls of others to research the implementation of yoga in school communities. For example, to Robinson and Berezowski's (2016) suggestion that "future consideration may be to develop a yoga curriculum that would be appropriate for younger students," we have identified one of these age-appropriate curriculum resources (*Breathe.Read.Yoga.*) and we have researched it.

Our research provides a window into children's understanding of yoga and, less directly, insights into teacher pedagogy and how yoga and mindfulness-based practices can be of benefit to one's physical, mental, and emotional health. In addition, the yoga program (*Breathe.Read.Yoga.*) offers a diverse library of yoga classes that uniquely combines mindfulness, literacy, and yoga. This distinctive combination offers possibilities for integrating children's literature with movement and has the potential to empower students through cross-curricular integration and learning. Teachers may use this research to consider their own pedagogy and how a daily yoga practice, using breathing techniques, story and movement in their classroom may be of benefit to their student's literacy and social emotional development. For example, teachers may consider integrating yoga as a way to help students embody the emotions of the characters in the story to help children understand their own emotions, in addition to using literature to enhance their written, oral, and listening skills.

The knowledge we gleaned from this study reaffirms much of the literature related to the various health benefits that may be realized through yoga participation. However, that these same (and other) findings were found with such a young cohort of students suggest that this school, other schools, school systems, and/or provincial ministries of education might consider implementing yoga within all classes with elementary-aged students. Such an undertaking might be small in scale (e.g., this one school, with more teachers). Or it may be large in scale (e.g., all students in a province).

This study, with the others we have shared, suggests this is an idea warranting serious consideration. And, at the same time, we know those who make these decisions might still call for more—more evidence, more resources, and more time. To these sorts of calls, we suggest we have added to this body of evidence, and we encourage others to do the same. This line of inquiry is wanting for continued attention. We would agree that more resources are needed too. Teacher education programs may need to help take on this role for pre-service teachers, and continuing professional development might support in-service teachers. With respect to time, we know that many disciplines would like a bigger piece of the instructional time "pie." But we cannot imagine any way of slicing that pie where dedicating 20 minutes a day to young children's physical, mental, and social and emotional well-being is not a good idea. And yoga, we have seen and are arguing herein, is one way of doing that.

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