

# Growth in Kinder"Garden" - The Integration of Outdoor Education into the Ontario Kindergarten Program

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## Abstract

This academic article examines the integration of outdoor education, specifically the incorporation of school gardens, into the Ontario kindergarten program with the aim of promoting the comprehensive development of young learners. The author, a dedicated kindergarten teacher with a passion for outdoor activities, shares insights gained from a year-long practice of taking students outside daily, fostering a profound connection with nature. The article explores the positive effects of an outdoor learning environment on various aspects, including social-emotional development, sensory play, and academic engagement. The author underscores the transformative influence of school gardens, recounting the process of establishing nine gardens that not only contributed to academic advancement but also instilled principles of eco-responsibility and sustainable stewardship. The article provides a detailed account of the outdoor learning environment's characteristics, encompassing natural colors, diverse seating options, as well as the presence and relationships with non-human entities. Moreover, the article addresses the contemporary shift in kindergarten education, highlighting the departure from exploration and play toward a more academically focused paradigm. It advocates for a return to the foundational concept of kindergarten as a children's garden, as conceptualized by Friedrich Froebel, presenting evidence of how outdoor education can harmoniously align with academic as well as age appropriate developmental objectives. Practical initiatives, such as composting projects and tree planting, are expounded upon as examples of how kindergarteners can actively participate in eco-friendly practices within the school community. The article accentuates the underestimated capabilities of young children, citing instances of successful school-wide initiatives led by kindergarteners, culminating in the attainment of the platinum eco-school certification. The significance lies in the transformative influence of school gardens, fostering not only academic advancement but also principles of eco-responsibility and sustainable stewardship. The author shares personal insights derived from the gardening journey, spanning from horticultural knowledge and problem-solving skills to intergenerational relationships and community engagement. The article concludes by reflecting on the enduring impact of the school gardens, asserting that the roots and shoots cultivated in this outdoor environment have provided invaluable learning experiences for both the students and the community.

**Keywords:** Eco-responsiveness, Holistic development, Kindergarten, Outdoor education, Place-based education, School gardens.

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## 1. Introduction

How can we foster growth in kinder“garden”?

As a passionate kindergarten teacher for most of my career I was always told by my administrators and mentors to cater to the whole child. That is the social, emotional, physical, spiritual and intellectual child. "A whole educational approach focuses on the social, emotional, mental, physical as well as cognitive development of students. At its core, such an approach views the purpose of schooling as developing future respondents and providing the basis for each child to fulfill their potential" (Slade & Griffith, 2013). Ultimately, the expectation was that I, as a kindergarten teacher, cater to the development of the whole child. However, throughout my formal teacher training and three kindergarten specialist courses, there was little mention of how this could also be done with the help of the land. There was little mention of outdoor education - where my true passion lies. In real life, outside of school, not every “classroom” or learning opportunity is confined by four walls. I contend that outdoor education offers a more comprehensive approach to education, capable of tending to the entirety of the child.

Here is a deep dive into how I took my students outside daily for an entire academic year, teaching them to love, care and cherish nature, all while building their eco responsiveness and developing their sustainable stewardship. Throughout this process we built nine gardens that assisted in the development of reciprocal relationships with the land, the learning of fundamental life skills, life-long lessons and immeasurable growth. Some might even say that nature helped me cater to the development of the whole child.

## 2. What does a garden as a learning environment look like?

Envision yourself observing a learning environment of a kindergarten class where you witness genuinely happy children playing together, socializing, participating in free, sensory and loose parts play, getting dirty and demonstrating creativity, and taking part in risky play and taking chances, all while adhering to their limits and boundaries, and being challenged within their zone of proximal development (ZPD) (Fani et al., 2011). In this learning environment, you would also observe that these young learners are interacting with and exploring their natural surroundings, acquiring an appreciation for nature in all four seasons, and developing a sense of care and love for the environment. You would observe that these kindergarteners are transitioning easily, mostly without tantrums from one activity to the next, because they are playing and learning according to their interests and whatever piques their curiosity, and cooperating and sharing with other students, all while interacting and learning with their teachers who are considered allies in the learning process. You would notice that they feel valued, unique and that their differences are celebrated in this learning environment.

You would also notice a few things about this learning environment you would not expect to find in a traditional kindergarten classroom. Even subtle details make a big difference in the learning process which include but are not limited to naturally calming colours, such as the blue of the sky, the green of leaves in the trees and of the grass, the dark brown vitamin-enriched soil, all illuminated by the natural sunlight, which also gives students vitamin D and breathing fresh clean air. This learning environment also provides multiple flexible seating options such as logs, stumps, piles of leaves, soft ground, and multiple standing learning opportunities. The sound of birds chirping and buzzing bees and the butterflies and wind in the trees. Observing insects and worms, as well as traces of animals living in their natural environment. Ultimately learning that this environment was reciprocally a place for learning and as well as habitation. This is teaching us to care and give and benefit from our earth with kindness and reciprocity. Not to take too much. Always ensuring we can give back and aiming to form reciprocal long-lasting relationships with the land. Acknowledging that this is not our land and that we are settlers to this land. Learning about all the gifts that mother earth has to offer. Finally, the natural sunlight and the weather (wind, sun, rain and snow) also serve as agents in the learning process, all while giving health benefits in this outdoor learning environment, more commonly known as a garden.

Depending on their needs, students know they can find a safe space in and around the garden and outdoor learning environment where they can go at will. For instance, they may opt to sit under the shade provided by a large tree - a place to reflect, do some deep-breathing exercises, and self-regulate. Students would tell you that they can go to this safe space whenever they feel the need, and you would realize this is not a place they are forced to go to after misbehaving, but rather a place of security and wellbeing where they know they will be able to reflect, self-regulate, calm themselves down and emerge feeling recharged. A place where they can fill their “cups”. Various social-emotional development and strategy-setting tools are presented in this outdoor class, and yoga and meditation are frequently used to help with self-regulation. Students are also learning the vital life skill of social-emotional learning (SEL) and development (Weissberg, 2019).

This outdoor learning environment known as a garden is home to many more-than-human beings such as plants, flowers, insects, reptiles, and animals in their natural habitat. As such, there is a limitless number of open-ended toys that mother earth has to offer (sticks, logs, rocks, wildflowers, etc.), all of which can be used to engage in sensory and loose part play, foster creativity and imagination, and help with learning literacy and language development, numeracy, dramatic play and inquiry investigations. For many students, this milieu may present a drastic change from the buzzing lights and sounds provided by electronic devices, the three layers of paper hanging from the walls of their classroom, and the endless plastic toys. Students may need to build up their “play stamina” in order to start appreciating and enjoying themselves to the fullest in this new outdoor learning environment.

Kindergarten as we know it today was first conceptualized by Friedrich Froebel as a children’s garden. Today in Canada, kindergarten classrooms emphasize play and exploration as the primary methods of learning and development, but in confining most learning to indoor settings, that the garden in kindergarten has been forgotten (Stegelin 2005; Ontario Ministry of Education 2006; Elementary Teachers’ Federation of Ontario 2010). Kindergarten should provide multiple opportunities for young children to immerse themselves in spontaneous play and creative interactions with their peers (Stegelin 2005; Bodrova & Leong 2007). Unfortunately, over the years kindergarten has slowly transitioned from an environment for exploration and play into a setting for academic preparation that emphasizes the use of a standard program and assessment procedures. The reasoning behind this transition is the belief that this precursor to grade one can lead to greater academic success in the later grades (Cook-Sather 2002; Diaz Soto & Swadener 2002). Nonetheless, throughout this article I aim to demonstrate that it is still possible for kindergarten teachers to nurture socialization, exploration and risk taking in their kinder“garden” classes.

## 3. About the author

It is to be noted that I am a passionate kindergarten teacher but also an outdoor enthusiast. I have always loved the outdoors and young children. Someone once asked me where I got my love for the outdoors and I replied without

hesitation: “my dad”. They asked if he was a professor in environmental science or some sort of a botanist or a tree specialist. I replied “no, he simply loves spending time outside and doing all outdoor activities. He would take my sister and I outside regularly, in all types of weather and so, naturally, that passion for the outdoors was instilled in me from a very young age.” Some of my fondest childhood memories take place in nature. Hiking and cycling through the Dundas Valley with my dad and sister, as well as regularly exploring the parks, lakes, forests, waterfalls and endless trails of Southern Ontario have all developed my love for the outdoors. Early in my teaching career, I realized that I could bridge my passions for the outdoors and early childhood education. As a first believer in the benefits of nature, I believe that nature education is an essential building block for future success. Allowing children to immerse themselves in the same natural environment on a regular basis builds a sense of belonging to nature, a sense of comfort and respect for the natural world, all while discovering the natural changes that occur with time and the change in seasons. Allowing children to take supported risks builds their self confidence, team work skills, independence and critical thinking. I believe that a kindergarten class that gives children the gift of being immersed in nature, no matter the weather or season, supports the development of the whole child. This is a class that encourages risk taking, open-ended play and multilingual development, ultimately empowering children to find and hone their strengths and enabling each individual to shine. This is a learning environment that educates holistically, through nature, community and creativity. I firmly believe that our society underestimates the boundless capabilities of young children. They are curious, capable beings. I believe the magic of knowledge lies in taking the time to ask questions to children, respectfully challenging those questions and ultimately, keeping them continuously in their ZDP.

#### **4. Kindergarteners can make significant school and community-wide impacts**

One of the school-wide initiatives we started as a class was composting. As an active member and one of the leaders of the eco-club at the school, I was given permission to take on the composting project. To each classroom, we distributed recycled coffee cans, lids and compostable bags into which students could deposit any organic matter. With the help of other eco-club members, my kindergarten students and I would collect the compost twice weekly. Several large composters were donated from community members and purchased by the school for the project. As a class, we had fun making signs to educate other students what goes in the compost and what does not. In rain, snow or shine we had to go out to the composters to dispose of the compost. This took a commitment on behalf of all members of the class and the eco-club. Several family members reported that they started composting at home after their kindergarten child came home educating them what compost was and how to do it. Later that spring, my kindergarten students got to see how the compost was used in our gardens. They were beyond excited to learn about decomposition and received a lifelong lesson about reusing organic matter. A lesson that can serve them all while bettering planet earth.

#### **5. When passion drives new growth**

Another school-wide initiative we started was planting trees in the schoolyard. Our city was giving free trees away and I requested that every class be given a tree to plant. This was an ideal opportunity for all students to learn how to plant trees and care for newly planted trees. Additionally, tree stumps were also donated by a community member. The stumps were then cut and weatherproofed by the members of the eco-club. The stumps were placed in a circle and wood chips were put down around them under some shade provided by a large tree. This arrangement made for an ideal outdoor classroom that was used by the entire school, especially my kindergarten class. Other initiatives included school-wide challenges to raise awareness on fighting climate change such as “Meatless Mondays”, and “Warm Sweater Day” when the thermostat was turned down to save electricity. Some other initiatives were turning all the lights off for one hour every Friday afternoon, and to work on pollution such as community clean ups. We also took part in the Take Me Outside Challenges. Because I am so passionate about nature, it was very easy for me to spend endless additional hours outside of my working hours on these projects for my class and the rest of the school. With the help of other committed members of the eco-club, we were able to establish many successful school-wide initiatives and obtain the platinum eco-school Canada certification. Kindergarteners were part of this certification process from the onset, empowered with tasks that they learned to tackle and complete. I find we often underestimate what young children, such as kindergarten aged children, are capable of doing. They too can accomplish difficult tasks, by simply being taught how to take on these tasks, supervised in order to ensure safety and empowered to do them. They are valued, contributing members of their learning community.

#### **6. Allowing students’ interests and their developmental needs to guide your teaching**

In late winter of that year, a student remarked that certain birds were no longer seen outside in the playground. This observation led to an inquiry about birds and migration in the classroom. We read books about birds, sang songs and even painted bird feeders to hang in the tree beside the school garden. The students commented that the bird feeders were empty and suggested obtaining bird seed to fill the feeders. This idea led to a numeracy lesson

in measurement. How many cups does it take to fill the bird feeders? How long will it take for the birds to empty the bird seed? How many birds will sit on the bird feeder at once? How many different kinds of birds will come to eat from our bird feeders? The interest in birds remained for several weeks and the questions kept being asked. It became very apparent to me that these students not only enjoyed their lessons in nature, as we had been spending at least an hour learning outdoors on a daily basis since September, but that these students had a genuine interest in learning in, with and about nature. With ongoing observations and documentation through pictures, videos and voice recordings, evaluations were tailored to every learning style and progressions of learning we documented. This was an exciting way for me to put into practice the Howard Gardner's Multiple Intelligences (MI) theory. I was able to help empower my students to find their strengths and evaluate progressions of their learning accordingly (Richards, 2016).

Other inquiries explored topics such as the life cycle of a bean and we decided to grow beans in the classroom. Community members and parents were extremely helpful with this inquiry and some even volunteered to help with the cleaning of the school garden. The initial plan for the school garden was simply to allow students to learn about plant growth and to get their hands dirty while having fun outside. Little did I know, we were embarking on establishing a full-blown garden that would enrich us for months on end with invaluable teachings.

A committed family member of the classroom who was highly knowledgeable and passionate about gardening kindly volunteered to help with the school garden and offer his expertise. We created a schedule for other families of the school community to come and volunteer to clean the garden. After four solid weeks of cleaning the garden, uprooting dead plants and turning the soil, it slowly dawned on me that this would not be a typical school garden. Once the clearing of dead plants and roots was done, we learned that the soil needed to be turned in order for new roots to push through loose and airy soil and obtain nutrients. The aeration was a strenuous process given the soil around the school was clay-like, dense and rocky and not ideal for new growth. The students enjoyed being included in the garden preparation and the adults did too, despite it being physically taxing work.

Through this garden preparation process, the students had the chance to compare the length and strength of various roots and observe the weight of the soil. Additionally, several students were granted the opportunity to improve their fine motor skills by picking out small objects and rocks from the soil. For many students, the investigation of worms and grubs in their natural habitat was a memorable experience. For both students and adults, learning about white grubs (grubs of Japanese beetles) was a high point. However, when throwing grubs out of the garden beds escalated into the tossing of soil, a lesson about throwing things at each other closely followed.

Learning about the necessary tools needed to clean out a garden was a learning opportunity in life skills as well as in vocabulary. It is to be noted that the language of instruction with the students was French, but the volunteers spoke primarily English. This presented an opportunity for me, as a teacher, to expand my vocabulary and to learn new terms in both languages. Some of the newly learnt words were hand trowel, cultivator, spade, shovel, rake, pruners, wheelbarrow and garden fork. This was an opportunity for literacy and language development that I knew I had to jump on, because my students' interest was there. Consequently, for some sessions we took dry-erase white boards out to the garden which allowed students the opportunity to write and illustrate some of the newly learned terminology. Furthermore, students were also provided with booklets in which they could document their observations throughout the gardening process.

Thanks to the immense generosity of the parents of the classroom, community donations and some financial assistance from the school we were able to purchase soil, compost and woodchips and the rest was donated. We had two large mountains of soil and wood chips at the end of the garden. The students adored helping shovel the soil into the wheelbarrow and help wheel it to the garden beds, an ideal opportunity to work on coordination and the development of gross motor skills for the students and aerobic activity for the adults. Through this initial phase some of the learnings included checking soil quality to determine if it is conducive to plant growth. We also learned about organic matter and acidity levels of the soil. For instance, horse compost was used, but if this is not mixed in with enough regular topsoil, it can actually scorch the plants because of its high nitrogen content. I later learned that a good alternative would have been to use mushroom compost.

The next phase was to ensure there were designated areas for both growing and walking. The garden's parameters were distinctly defined by laying down wood chips. Prior to this experience I would have typically just laid the wood chips down, or left the area as soil and grass which would have made for an extremely muddy area once we began watering the gardens. Additionally, the distinct boundary of the gardens would have been unclear so students and adults would not have known exactly where to walk. To our surprise, we were instructed to lay down a black felt-like material (formally called landscape fabric), followed by a layer of cardboard which would help prevent weeds from sprouting in the walking areas. We then laid a thick layer of wood chips on top. This process was a delightful sensory experience as we learned that fresh cedar wood chips exude the aroma of freshly cut wood. Later in the season, we could also distinctly see where small gaps had been left between the cardboard, because in those spaces, the weeds had managed to emerge.



## 7. Bringing indoor activities outside

An inquiry on beans led to an exploratory table with gardening tools, soil and seeds for students to plant. It was apparent that students adored that particular learning center as they all eagerly wanted to take part in planting the seeds and caring for the plants indoors. This was an opportunity to learn about the life cycle of a plant as well as the specific needs of a plant - how it should be cared for, proper planting and gardening practices, the importance of the correct amount of water and sunlight. To my surprise, I knew very little about the proper techniques of planting. I had very fond childhood memories of gardening from a young age with my grandmother, but I was unfamiliar with proper techniques. With the help of our volunteer, we were guided on all of these facets.

When we went outside in the garden and it was finally time to plant more seeds the students, as well as the adults were extremely excited! All the seeds for this school garden were graciously donated by generous families and members of the community. We then started planting the seeds in seedling germination trays. I started by instructing the students to put black top soil in the little compartments of the seedling tray and fill them to the top. I then instructed the student to take their little hand shovels and to dig a hole in which to put the small handful of seeds. Our volunteer graciously stood from afar and observed quietly. To my surprise, I was doing it all wrong. Everything I knew about gardening was wrong, and I had no idea. We brought the seedling trays in the class to put them on the window sill where they received lots of sun and way too much water. We learned later on what overwatered plants look like. The next gardening session, when it was time to plant more seedlings, the volunteer graciously asked if he could show me how to do it.

He taught me not to fill the pot all the way up to the top and to simply use my finger to make a hole that is about an inch and a half deep, then to carefully place 2 or 3 seeds in each hole and to place more soil on top. Not to press down on the soil, and to carefully water right away. Fertilizer was not needed in the water.

As an educator, this was a lesson on leadership for me. The volunteer didn't embarrass me by telling me I was doing it all wrong, or yell, or get upset, or even immediately interject when I was teaching. He quietly observed, then graciously asked if he could teach me when we had more seeds to plant. His guidance and instruction was carried out with such grace and respect that it became a lesson on leadership for me, one that can be transferable to all areas of my life.

Another lesson came about when we planted seeds directly in the garden. The number of seeds per hole and distance between them mattered as seeds need space to grow. Some factors that determined how much space to leave between the seeds was how the plant was going to grow. Was it a root vegetable growing downward, such as a carrot? They would not require very much space in between them as they do not take much space themselves. We learned that there was summer squash and winter squash (an example of a summer squash is a zucchini and an example of a winter squash is a pumpkin). Zucchini's grow to be large plants, consequently they need a lot of space in between each seedling. Pumpkins grow on long vines but they stay on the ground. After several weeks of observing the pumpkins grow, we observed some white spots on the leaves. What was that? Our pumpkins were dying. It was our first experience of death in the garden. Something that we worked so hard on getting planted in the class and had transplanted in the garden. Something we waited months for and made plans to carve the pumpkin for Halloween and bake the seeds. It was a mourning experience for us all, but not for long. Into the composter our dead pumpkins went and it was time to plant something new. After all, those dead pumpkins were taking up prime real estate in the garden.

## 8. Multi-growth and harvesting in the gardens

To our surprise, we discovered the cyclical nature of growing our own food. We could plant, and harvest the produce, enjoy it, and use the harvested seeds to grow more crops repeatedly. One day, upon harvesting some beans, a curious student looked up at me and asked if we could eat it. "Absolutely," I replied. We all sat on the edge of the garden munching on the fruits of our labor. At that moment, I realized then that I wanted to organize a "garden-to-table" workshop to give our students the opportunity to experience growing, harvesting, preparing and consuming the food they planted. This led to several workshops being offered to many classes thanks to our very kind volunteer who also had extensive experience in the kitchen.

Through these workshops, students were able to learn first handedly how to grow food, harvest it, prepare it and then consume it. They also discovered various recipes and learned that you can eat all parts of a plant -the seed, root, stem, leaves and flower - can be eaten. For many of these students, it was the first time they had ever gardened yet alone harvested something from a garden. For them to be able to learn where their food was coming from was a lesson on nutrition that will impact them for the rest of their lives. To many, it came to great surprise to learn that not all food comes wrapped in plastic packaging.

After the workshops, we proceeded to plant new seeds and we were able to "restart" our gardening venture in a sense. This was particularly thrilling because we initially believed it was just going to involve one set of seeds and the experience would be over. We were able to learn that there are various phases of gardens depending on where you are in the season - spring, early summer, mid to late summer and fall. Something that started out as a simple inquiry-based investigation in March, turned into a continuous cycle of planting and growing all the way

until November. In fact, our final planting of the year was garlic, which we eagerly look forward to harvesting in the spring of this year!

Throughout this journey, we cultivated more than 30 different varieties of fruits and vegetables, as well as perennials, annuals, shrubs and trees. As an enthusiastic and eager but inexperienced gardener on such a scale, I must confess that we may have gone above and beyond. That is how I tend to approach all things in life, but a recommendation I would have for a new teacher to school gardening is do not get carried away and make sure you have assistance. One highlight was that we were not only able to enjoy the vegetables, fruits and flowers that we planted, but were also able to share our harvest with members of our community. We put up a sign inviting anyone passing by to take what they needed from the basket in front of the garden. This fostered the sense of giving back to our community members and to those in need.

### **Final reflections**

As I reflect on this experience, I cherish the memories of my students dashing into the class each morning and urging me to hurry to the garden and to care for, water, and observe the plants' growth. I recall their excitement of being outdoors and playing in the soil. I remember their sense of curiosity being sparked as we embarked on this new adventure. Their inquisitive minds were ignited. Their sense of ownership and belonging was also rekindled within their school community. Their sense of awe and amazement when we could munch on the first beans we had planted in the class and were then able to eat off the now vine - we were all awestruck! Their sense of connection and affinity with nature became stronger than ever when they were in the same outdoor learning environment day after day for months on end. Their learning about where food comes from provided a vital lesson on nutrition that will serve them a lifetime. The garden was a haven where they felt secure, had fun, were exploring, learning and empowered to try new things. It was their garden and they were brimming with pride. We were all so proud of it!

Being awarded the platinum eco-school certification was a crowning achievement for us as we all worked so hard, and invested considerable time and energy to obtain that designation. However, what really hit home for me was being able to share the love for being outside and a passion for growing with my students and the bond that we shared because of it. Learning does not always have to occur indoors. Learning and evaluation does not always have to be done in the traditional way. Learning can be messy and mistakes are made when chances are taken and a bit of chaos is embraced, but that is when true in-depth learning occurs.

During this gardening journey, I also gained numerous valuable personal insights. I gained knowledge about soil density, the appropriate depth for planting seeds, and the correct spacing between seeds. Moreover, I also learned to better problem solve. At one point, after we had already planted some of the seeds, one of our volunteers asked me where the nearest water source was. I hadn't even considered that detail. Of course, these plants needed water. Would a rain barrel work? Could we bring water out from inside the school? We eventually found a tap near one of the garden beds but it required a special tool called a "vise-grip". Additionally, I learned how much water to provide the plants and when to give it according to the sun and time of day. Ultimately, we found that a vertical sprinkler worked well for our needs.

Another high point of this journey was discovering where to locate and acquire the resources I needed. I felt a stronger sense of connection to my community than ever before. Most of all, I felt like I was a valued and contributing member of my community doing something I loved. One day, we required more wood chips for the walkways around the gardens, and as luck would have it, there was a tree-cutting company truck that drove by. I followed the truck down the street and inquired if we could have their wood chips. They were delighted to avoid an extra trip back to their yard.

I learned about intergenerational relationships and how important they are. Gardening is an activity that eliminates barriers and can help foster intergenerational relationships because age is irrelevant when you're there to do something you love. I also learned to allow nature to take its course - to allow insects, mice, worms, grubs, bees, birds, moles and butterflies to live and coexist in their natural habitats. I learned about weeds. In the nine garden beds there was bound to be a lot of weeds. I learned that it's crucial to get the right tools to save your back. I expanded my vocabulary and learned about everything from netting, to plastic clips to keep tomato vines up, to trellises, hoes, and fish fertilizer. I experimented in the kitchen with new, healthy recipes from our harvest - that is, if it made it home (a lot of it was eaten right at the garden or on the car rides home). I learned that there are also some things that will go exceptionally well and flourish in a garden like our zucchinis, beets, green onions, and tomatoes did. And despite endless hours of hard work in the sun, other things will practically fail due to a number of different factors, just like our pumpkins and corn did. There are ups and downs. Fortunately, the ups significantly outweigh the downs by a long shot.

In the end, the roots and shoots that emerged in this garden were foundational elements that provided us with immeasurable learning that will undoubtedly endure throughout our lifetimes. These botanical havens were instrumental in fostering a feeling of connection with nature, and helped to cultivate a sense of community and belonging. They also facilitated the establishment of lasting relationships. To all my highly dedicated students,

eco-club members, volunteers and members of the community, I express my gratitude for embarking on this collective rhizomatic adventure with me! It was an experience that propelled us to growth in countless ways! Some might even argue that these gardens allowed me to cater to the holistic development of the whole-child and far beyond that.

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