

“Ready, Set, Grow!” Nurturing Young Children Through Gardening

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Published online: 4 December 2009
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Abstract This editorial describes one class’ experience of participating in a community-funded gardening project entitled “Ready, Set, Grow!” Children at risk who lived in an urban setting were encouraged to plant fruits, vegetables, and flowers in order to learn about healthy eating and active living. Numerous easy to implement strategies for how educators can replicate this program and engage young children in a container gardening program in their own classrooms are included throughout the text.

Keywords Kindergarten · Gardening · Healthy living · Child development · Whole child

Must we always teach our children with books? Let them look at the stars and the mountains above. Let them look at the waters and the trees and flowers on Earth. Then they will begin to think, and to think is the beginning of a real education.

David Polis (Cloud Forest School 2009)

Recently I enrolled in an online Early Years additional qualification course. Designed for certified teachers wishing to enrich their knowledge of Early Years programs and children ages 3–6, this course focused heavily on child development theories, developmentally appropriate practices, and how these help shape kindergarten pedagogy and practice in today’s classrooms. As I spent time researching for additional information for a project, I stumbled across a

website devoted to Friedrich Froebel. Intrigued by the website, I spent some time exploring it and reminding myself of Froebel’s beliefs regarding the importance of early learning in childhood. Metaphorically described as a garden where each child could develop fully according to his or her true potential, the original kindergarten was first conceived by Froebel in the nineteenth century. Froebel envisioned kindergarten as the foundation of a child’s education; a place that focused on child-centered approaches and used educational, age-appropriate materials to nurture self-motivation and discovery (Phillips 1957). Here a child’s social, emotional, spiritual, and moral developments were tended by teachers, resulting in the promotion of a balanced child with a healthy mind and body.

As I read about Froebel’s hopes for young children’s growth in a kindergarten classroom, I began to reflect upon my experiences as a kindergarten teacher for the last several years. The more I reflected, the more I worried that Froebel’s vision for early childhood learning has begun to erode as standards-based instruction and assessment come into the forefront of kindergarten pedagogy. In my recent professional experiences the dominant discussions I have had with colleagues have been about the importance of early literacy and numeracy skills and the use of diagnostic testing to support student achievement. Although there is a place for standards and accountability in education, I believe this paradigm shift is rapidly changing how educators, administration, and society envision the early years. I worry that the aesthetic, play-based, and exploratory practices of Froebel’s kindergarten are becoming extinct as the push for early standards-based achievement compounds programming and creates a one-sided focus in our classrooms. In a panic to have children score at or above benchmark on government mandated assessment tools, I worry that educators will abandon what they know about

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developmentally appropriate practice, differentiated learning, and meeting the needs of the complete child.

As an educator in a publicly funded school, I am not immune to the push for higher literacy and numeracy scores for my students. However, I truly believe that today's early years teachers can find a balance between promoting a balanced academic program while engaging students in holistic, developmentally appropriate experiences that develop the *whole* child. Recently my students and I participated in a community gardening initiative that was funded through a local children's fund. Our experience proved just how much child-led learning can occur when young students are engaged in authentic, differentiated experiences that capture their interests and imaginations.

Our Class

Our classroom was located in the downtown area of a large, urban public school board. Children came from a variety of cultures, languages, and life experiences. Our school was considered to be one of the most compensatory in the area due to our high levels of student transience, low socioeconomic levels, numerous first-time English language learners, and high rates of student absenteeism. The term *compensatory* denoted that in addition to regular educational programming and assistance, children at our school were considered 'at-risk' and received other essential services to help them compensate for a lack thereof in their personal lives. We offered a breakfast program to supplement student nutrition, before school 'homework club' where students could meet to socialize or receive extra academic support in a safe environment, numerous community and parenting programs to assist families new to the country or needing additional support, and close connections with local programs offered through the library, police, and social services.

The "Ready, Set, Grow!" Program

"Ready, Set, Grow!" was a community initiative sponsored by a local government fund that aimed to promote awareness of healthy eating and active lifestyles among children at risk living in an urban area. Using literacy activities, creative movement, and the arts, this program aimed to empower children ages four through six by learning the basics of nutrition through container vegetable gardening (Morris et al. 2000). Children participated by growing fresh fruits and vegetables from seed in the classroom, while learning how to maintain a balanced diet and a healthy lifestyle. I was contacted by Miss Emme in the early spring about possibly participating in the

program, as our school qualified for the services offered due to our status as a low-income, compensatory school. I was immediately interested as I noticed that the program consisted of an active, hands-on approach to learning that would appeal to my students through visual, auditory, and tactile stimulation. I believed that "Ready, Set, Grow!" would complement our existing classroom programming, while appealing to the variety of learning styles, interests, and abilities of the children in my class.

Miss Emme visited our classroom once a week for six consecutive weeks. Her lessons were approximately an hour and a half in length and composed of three parts: an introduction, a main planting event, and a concluding snack. From the first moment Miss Emme introduced the children to the concept of gardening, they were hooked. It was clear from their excited expressions, clear focus and participation that they greatly enjoyed her visits and the engaging lessons she provided. They immediately anticipated the next week's visit as soon as Miss Emme left, so we made sure to record on our class calendar when she would return so the children could count down to the next session.

The Introduction

One of the main goals of the "Ready, Set, Grow!" program was to instill in children the notion that healthy eating correlated with growing healthy plants. Children educated early in life about the benefits of healthy eating and who are encouraged to grow their own fruits and vegetables are more likely to eat healthfully as adults (Bell and Dyment 2008; Koch et al. 2006). Miss Emme began each of her visits with the children by singing a song, reciting a poem, or acting out a finger play about healthy eating. Students would vocalize the rhyming words and dramatize the actions by following along with Miss Emme. Various language strategies were used to emphasize the importance of eating a balanced diet and staying fit and healthy through exercise. Often Miss Emme included picture cards and printed copies for children to track with pointers as they engaged in shared reading and chanting of the poems and songs. These strategies helped reinforce our early literacy program while aiding English Language Learners by connecting spoken language to pictures and print. We often extended these lessons by including word and picture cards of food to our word wall and posting copies of the poems and songs in our reading center for children to read along and track using pointers during free choice time. It was apparent at the beginning of this program that most students were unaware of which food choices were healthy or unhealthy. This drastically changed by the end of the program.

Miss Emme often included a read-aloud in the introduction to her visit. Using many printed materials including fiction picture books, nonfiction reference books, posters, information index cards, and recipes, Miss Emme would read advanced literary material to the children, and explain how by growing and eating food from healthy plants, our bodies and minds could strengthen and develop. By including a variety of nonfiction material in her read-alouds, children were exposed to numerous printed materials that demonstrated and connected how people might use informational sources to help them make informed decisions. Students became empowered as they learned to become critical consumers by analyzing literary sources for information. For example, nonfiction books about plants provide informational pictures and directions for how people grow plants from seeds, posters displayed in public places like grocery stores and restaurants advertise healthy and unhealthy food choices, and recipes and food index cards provide information about a food product's specifications (for example calories, fat, vitamins and minerals) that can help people make informed decisions about what to buy and eat from a grocery store. By including the read-aloud as part of her introduction, Miss Emme strengthened children's literacy skills while engaging them in a discussion and analysis of potential lifestyle choices. It was hoped that by engaging children in communal, critical literacy activities at school they would be encouraged to continue these practices in their future, personal lives (Glover 2004).

The Main Planting Event

Next Miss Emme would engage children in a practical component of the lesson that allowed each of them the experience of planting seeds that would grow into flower, vegetable, or fruit plants based on the lesson explored that day. Each child had a set of gardening tools (for example pots, shovel, rake) to use. Miss Emme would demonstrate the different needs and requirements of the seeds (as some needed to be planted in specific ways) and then students would be given ample time to plant. Many children had never before had the opportunity to plant their own seeds. The high level of excitement and interest the potting invoked in students expressed just how important this experience was for them. The pots of soil and seeds would remain in the classroom for the week until the next visit from Miss Emme, at which time they would be sent home to be added to the family garden.

During the week children were able to care for their plants by supplying them with sunlight and water. This provided the wonderful opportunity for them to witness the seeds germinating. Although the basic elements of growing plants from seed are almost the same (for example the seed

goes into soil, add water and sunlight, wait for it to germinate), the variety of sizes, shapes and colours of seeds fascinated students. What was more exciting for the children was the discovery that each variety of seed grew in a unique way—multiple lettuce sprouts came up simultaneously, the bean plant slowly unfurled with the seed head atop the growing vine-like plant, and the tomato plant had a wonderful scent almost immediately to it. During free choice time the children would engage in much self-directed activity regarding the growing seeds including measuring how tall they were and recording how much they had grown since the last day, writing about them in their journals, and painting pictures of them at the art easel.

My teaching partner and I were amazed at the level of student interest and engagement with the “Ready, Set, Grow!” program. Wanting to capture and extend this scientific exploration, we invited students to brainstorm additional activities for inclusion in the classroom. The children suggested literacy and numeracy activities such as:

- adding plastic fruit, vegetables, flowers and gardening tools to the sand center so it could become a gardening center
- adding restaurant materials to the dramatic arts area so children could role-play that they were preparing and eating the fruits and vegetables they were growing
- including real fruits, vegetables, flowers, and seeds to the art center for creation (for example potato and apple stamping, painting with carrot stalks, pasted seed collages)
- adding materials to our literacy center including gardening books and magazines, posters, recipes and seed packages
- including cut up fruits and vegetables as well as seeds to the science center so they could be examined and dissected by students using magnifying glasses, tweezers, and scissors
- putting plastic fruit and vegetables, money, and a scale at the math center so students could pretend they were buying fresh food at a local market

These child-initiated extension activities were inspired by the experiences they had throughout the “Ready, Set, Grow” lessons lead by Miss Emme.

Concluding Snack

Once each child had planted his or her seeds and the gardening materials were put away, children gathered together to share a nutritious snack that corresponded with the day's activities. Children who grow their own fruits and vegetables are more likely to try and like new food choices (Morris et al. 2000) and I noticed that even the pickiest

eatery were willing to try some of the cut up veggies and dip, fruit salad, and whole grain breads and crackers. These snacks also supplemented the children's diets, as many attended the school's breakfast program and benefited from the additional food sources provided at school. After snack students would gather together on the classroom carpet and engage in one final shared reading of the poem or song that had first opened Miss Emme's visit. Lastly, children were given the seedling they had grown from the previous week to take home, accompanied by a page of growing instructions and recipe suggestions for families to reference.

Connecting with Families

The "Ready, Set, Grow!" program enriched and extended our regular classroom programming by motivating and engaging students through a variety of meaningful, cross-curricular activities. It also actively sought to include families at risk in the gardening experience by encouraging them to interact with their children through nutrition and health-focused activities. Families might not otherwise have had access to this information. It was provided to them through the following home connections:

- Informational packages were provided to each family when a seedling was sent home including directions for how to grow and care for the plant, nutritional information related to Canada's Food Guide (Health Canada 2007), and recipe suggestions.
- Additional, supplementary information was frequently provided in the form of newsletters or pamphlets that outlined suggestions for local family activities, meal planning, and free community resources to help support and maintain physical health and nutrition.
- Representatives from the "Ready, Set, Grow!" program offered home visits with families to help establish and maintain the family or community garden started with the seedlings grown at school.
- Correspondence outlining information and encouragement for families was sent home regarding social initiatives such as buying and eating locally produced food, creating a community garden, engaging in environmentally friendly practices such as recycling, harvesting and saving seeds for future crops, sharing produce grown in gardens with others, and caring for plants without the use of environmentally harmful pesticides or herbicides.

Parent response and feedback from the "Ready, Set, Grow!" program was overwhelmingly positive. Families frequently indicated to me that they appreciated the resources and support provided by Miss Emme and many continued with the gardening at home by creating potted

balcony gardens or grouping plants together in shared yard spaces. During class time discussions I learned from children that numerous recipes and activities had been attempted and enjoyed at home. It appeared as though the majority of families were connecting through gardening or meal planning activities. The "Ready, Set, Grow!" program hoped to instill in children an appreciation for gardening and healthy lifestyles that was supported and maintained through close connections with families. In this manner, it was hoped that children would be more likely to continue with these practices as they grew and developed into adults with a love of nature and gardening (Gross and Lane 2007; Lohr and Pearson-Mims 2005).

Nurturing the Whole Child

A school should not be a preparation for life.

A school should be life.

Elbert Hubbard, philosopher (1927)

Numerous benefits of garden-based nutrition education programs exist including building of a sense of community between school and home, transferring information between generations, developing environmental awareness in others, and building of life skills in students (Sealy 2001). I observed these benefits to be occurring on a regular basis in our experience with the "Ready, Set, Grow!" program. The weekly activities were accessible by all of the children in the class, regardless of their physical, emotional, or cognitive abilities (Marturano 1999) because they engaged their entire bodies by appealing to the five senses. Children were encouraged to *see* a rainbow of colours when examining a variety of plants and produce, to *taste* how wonderful healthy fruits and vegetables can be, to *smell* the richness of earthy soil and the plants it helps grow, to *listen* to songs, poems, and stories about healthy eating and living, and to *feel* the dampness of the earth with their fingers as they worked to create new life. These opportunities provided children with a way to aesthetically connect with the gardening experience and with each other through differentiated practices, while encouraging literacy and numeracy exploration at our different classroom centers.

In addition, students were able to engage in the communal experience of taking pride in their achievements as they watched each other's plants thrive and grow. Occasionally it would happen that a child's seeds would not germinate. I would watch my students, with great pride, as they offered one another seedlings from their own pots so that no one left school empty-handed. Children took responsibility for one another as they cared for seedlings in the time between Miss Emme's visits, watering plants,

weeding the pots, and planting seeds for absentee students. No one ever left our school without a potted plant. However, so much more than plants was being cultivated through these caring, thoughtful actions within which the children were engaging. They were nurturing one another, growing relationships together as they experienced the wonder of starting life from seed. As an early years educator, this was the most meaningful gift I believe our class received from the “Ready, Set, Grow!” program. What better way to end the school year than to have children connect so closely with one another, solidifying their relationships before the summer break and the eventual return for another year of school.

When I reflect upon the “Ready, Set, Grow!” learning experience, I am reminded that engaging young children in enriching educational activities extends beyond the acquisition of standards-based literacy and numeracy skills. Too often today’s educational practice focuses overwhelmingly on student achievement without truly considering the development of children who are healthy, knowledgeable, motivated, and engaged (ASCD 2007). Early childhood educators must strive to create safe and nurturing classrooms that encourage and celebrate every aspect of each student’s capacity for learning. Young children need repeated experiences observing, exploring, and experimenting within a supportive social context in order to be actively engaged in authentic learning and feel connected to their peers (ASCD). The “Ready, Set, Grow!” program proved that when children engage in holistic, collaborative activities such as growing and caring for plants, they are able to develop socially, emotionally, and cognitively through natural self-motivation and discovery. Although multiple teacher prescribed and child-led literacy and numeracy opportunities emerged throughout this project, what was exciting for me was the social and emotional growth I witnessed occurring in many of my students, and the connections that their families were making to our classroom and with each other. In today’s time of increased environmental awareness, desire to eat locally grown food, and fiscal responsibility, what better way to nurture and support young children and prepare them for life in the twenty-first century than to introduce them to the thrill of growing their own flowers, fruits and vegetables in kinder/

garden. Perhaps by encouraging our children to become engaged in gardening practices at a young age, we can encourage them to be not just readers and writers, but life long appreciators of the outdoors, one garden at a time.

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