

School-Community Gardening: Learning, Living, Earning, and Giving

Nancy P. Gallavan and Freddie A. Bowles

If you think in terms of a year, plant a seed; if in terms of ten years, plant trees; if in terms of one hundred years, teach the people.

—Confucius¹

Elementary teacher Ms. Huff realized that her third grade students were limited in their knowledge and experiences related to gardening. Most of today's young learners in the United States do not live on farms, and few families maintain gardens. Only a few of Ms. Huff's students could say they had a family garden. In schools, students learn about origins of food, growth of plants, changes in food production, and benefits of nutrition; however, young learners rarely participate in outdoor gardening. This article describes how Ms. Huff introduced her students to community gardening, where they learned important social studies concepts and life skills concomitantly.

Recently, Ms. Huff became a master gardener through the state university extension service² and enthusiastically joined local gardeners to start a community garden near the elementary school. Together, they would involve her class in the processes of planning the garden, preparing the resources, planting the seeds, and producing the harvest. She visualized a school-community garden as a good opportunity for young learners to extend social studies learning experiences initiated in classrooms into their lives, strengthening concepts and methods of history, geography, economics, and citizenship.

Interest in community gardening has grown in popularity across the United States. Through city park and recreation services, county cooperative extensions, and other agencies and organizations, residents in large and small municipalities have

resurrected community gardening. According to the American Community Garden Association, over 18,000 community gardens exist in Canada and the United States.³

Plan the Garden and Begin Learning

Ms. Huff introduced gardens and gardening to her students by reading aloud *June 29, 1999* by David Wiesner.⁴ This whimsical book with captivating illustrations spins a tale about giant vegetables, appearing across the United States, planted with seeds dropped from a weather balloon. Although a fictional story, Ms. Huff used this book to capture her learners' imaginations, initiating a conversation about gardening and the plan to create a school-community garden.

The first stage of both gardening and learning concentrated on developing a plan. In both contexts, Ms. Huff reflected on the past before digging into the soil of new endeavors. Investigating the background of community gardens and building upon prior learning would equip the learners in making visible the role and value of history.⁵

Ms. Huff displayed a large sheet of light brown paper cut in the shape of an oversized oval representing a seed with the word "Garden" at the top. She used the KWHL process to guide the unit by identifying what the learners Know, what they Want to know, How they will confirm their learning, and what they have Learned.

Ms. Huff asked the third-graders what they Know about gardening and recorded their ideas. Carefully she guided the conversation to the history of gardens, particularly community gardens, emphasizing the importance of knowing about the past in order to function effectively in the present and to plan for the future. She showed photographs from the book *City*



Victory garden poster, World War II, 1945

Morley/commons.wikimedia.org

Bountiful: A Century of Community Gardening in America.⁶ and recounted the following history of modern, urban community gardens.

Urban Gardening

Based on the traditions found in the United Kingdom and Scotland, community gardens in the United States began in the late 1800s as the Potato Patch Movement.⁷ Cities were expanding, and city dwellers owned no land on which to plant a family garden. At times, laborers were unable to find work to pay for food for their families. Some people would plant small gardens in a vacant lot or along the edge of a sunny wall. Progressive-thinking city leaders in cities and towns of all sizes began offering land for community gardens to help their residents.

During the early 1900s, community gardens grew in popularity. Liberty Gardens were established for people to grow food during World War I. The community gardens of the early 1900s were followed with Relief Gardens of the 1930s that provided work and food for people as an attempt to lift their spirits during The Great Depression. Later, during the 1940s, 20 million Victory Gardens were started during World War II, and up to 40 percent of the vegetables consumed on the “home front” were grown in Victory Gardens.⁸

The contemporary community gardening movement can be traced to the 1970s with the founding of the American Community Gardening Association, whose broad definition of “community garden” encompasses rural, urban, and suburban settings prepared for individual use, and “urban agriculture,” where the produce is grown for marketing.

A timeline revealed how the historical aspect of community gardening aligned with social studies curriculum theme **● TIME, CONTINUITY, AND CHANGE**.⁹ Ms. Huff announced that their own gardening effort would become part of this history. It would be an adventure, and also a shared responsibility. She explained that everyone would be given

1. a voice in expressing opinions and asking questions,
2. choice in voting and making decisions,
3. ownership or a sense of social agency in the project from beginning to end, and
4. respect while participating fully and equitably.

She also emphasized that everyone must honor “voice, choice, ownership, and respect” as values to be shared with all other gardeners.

Such responsibilities and interactions reflected the curriculum theme **● POWER, AUTHORITY, AND GOVERNANCE**, as students learned how to negotiate when different choices were proposed. Over time, the students developed their own cultural characteristics as school and community gardeners. (**● CULTURE**)

Prepare Resources and Materials

The second stage of both gardening and learning involved preparing the resources and materials, capitalizing on themes

● INDIVIDUAL DEVELOPMENT AND IDENTITY as well as **● INDIVIDUALS, GROUPS, AND INSTITUTIONS**. Ms. Huff read aloud *Jack’s Garden*,¹⁰ a book for young readers that features the steps of creating a garden. It follows the narrative structure of the folk song “This is the House that Jack Built,” and it depicts gardening as an activity involving many different people working through a specific sequence of events.

Then Ms. Huff displayed an oversized sheet of light yellow paper cut in a circle representing the sun with the word “Inquire” written across the top. She explained that “to inquire” means to ask a question or to do research on a specific topic. Delving into the second step of the KWHL procedures, she asked what students Wanted to know and Wanted to do related to their school-community garden. Again, she recorded ideas and posted them next to the phrase “To Garden.” From the two papers, Ms. Huff pointed out the importance of planning and preparing before planting and producing.

Ms. Huff showed the class many photographs from *How to Grow a School Garden: A Complete Guide for Parents and Teachers*¹¹ that illustrate every step of school gardening. By sharing the sequence of images, Ms. Huff hoped to increase her students’ anticipation of and commitment to their garden.

Ms. Huff explained that school and community gardens require land that is owned and allocated by the local schools and municipalities. A garden plot must include adequate space, easy accessibility, workable soil, and a source of water, reflecting concerns of geography and the theme **● PEOPLE, PLACES, AND ENVIRONMENTS**. As gardeners, students would need to get “the lay of the land” by becoming aware of soil types, sun exposure, water availability, drainage, weather patterns, calendar dates, the rate of plant growth, and other factors that must be considered carefully before seeds are selected and placed into the ground on a specific day of the year.

Cooperation would be necessary. Students would need to watch carefully and wait patiently, ensuring that everyone’s contributions were valued and all opinions considered respectfully. Ms. Huff explained that cooperation also would be essential as individuals’ energies ebbed and flowed during the preparation; the enthusiasm felt during the planning would have to be matched by constant attentiveness during the planting and growing seasons. With mentoring, learners would experience what it’s like to be part of a team working on a long-term project.

A Guest Speaker

Students went on a field trip to the community garden located adjacent to the school property so that they could see the garden and gardeners in action. Their field trip was scheduled at the same time that other master gardeners were tending the garden. Pairs of students were assigned to a master gardener who would give them a narrated tour of the garden.

Back in the classroom, each pair was given two large sheets of paper and instructed to brainstorm and record all ideas related to gardening on one sheet of paper for approximately

ten minutes. Ms. Huff and Mr. Decker also modeled how to brainstorm a list.

Then Ms. Huff and Mr. Decker showed the students how to construct a concept map on a second large sheet of paper using the ideas from their first list by linking the bigger ideas with the related ideas and drawing lines to connect them. Ms. Huff and Mr. Decker walked around the class assisting each pair for 20 minutes.

When time ended, sets of partners shared their concept maps with the class. Mr. Decker summarized their concept maps by constructing a prioritized list of procedures for preparing their school-community garden. Modeling cooperation, Ms. Huff and Mr. Decker drew another timeline and explained the required sequence of procedures for planting their seeds.

Plant Seeds and Ideas

The third stage entailed planting the seeds for gardening as well as the ideas for learning; both the seeds and the learners would grow by sowing positive energy. Ms. Huff explained that a garden calls for a long-term commitment—from planning the garden spaces, to preparing the soil, to planting to weeding, and finally, to harvesting. Too many individuals who want to garden tend to leap to the planting stage too soon because they are eager to produce the crops.

In the computer lab, Ms. Huff called up the “Children’s Garden Network” and the “Gardening with Children: Earth-easy Solutions for Sustainable Living” website. Here the learners found “the ten top crops to plant with children” and a list of gardening tips. The class would be selecting their seeds soon. Finally, Ms. Huff directed the learners to the BBC’s “Design Your Garden” website, which invites the user to design a virtual garden. Still working with their partners, students designed plans for gardens that were both practical and creative, with some assistance from Ms. Huff. (See Resource lists below.)

The next day, Ms. Huff invited a vegetable farmer who sold produce at the local farmers’ market to speak to the class. He emphasized the commitment to watering and weeding the garden that is needed in order to produce a healthy harvest. The farmer showed the types of vegetables that were sold locally and told what each of them cost in the market. He also provided a chart illustrating the cost of the seeds, fertilizer, tools, and other items needed for farming. Finally, he showed a simplified balance sheet, comparing costs and income over one year reflecting theme 7 **PRODUCTION, DISTRIBUTION, AND CONSUMPTION**.

At the conclusion of the farmer’s presentation, Ms. Huff displayed a large sheet of green paper, a rectangle representing the school-community garden plot. The word “Verify” was written at the top. Returning to the KWHL chart, Ms. Huff asked students to list the ways they were learning about gardening and how they confirmed this new knowledge. The students’ methods to verify their learning were recorded and posted with the other two lists of notes.

Care about the Future

Care encompasses maintaining the physical garden as well as the gardeners and the community effort. The garden produces fruits, vegetables, and flowers; however, part of the harvest that we receive from the garden is what we learn and the relationships we build with other gardeners and members of the community.

Emphasizing the concepts and practices of citizenship, community gardening with learners exemplifies the need to awaken interests and to work for change. Reflecting upon the experience reveals the importance of learning about oneself and awakens the sense of community and caring for other people near and far. Ms. Huff introduced the idea that some people give a percentage from the abundance of their gardens to other people to help them.¹²

Ms. Huff displayed a fourth sheet of paper, this one in orange, cut in the shape of a huge carrot with the word “Energize” written on it. Returning for a final time to the KWHL chart, Ms. Huff asked the class to tell her what they had Learned about gardens and gardening that had energized them. After recording ideas, Ms. Huff posted the fourth sheet of paper next to the other three lists. She asked everyone to look at the first letter of each of the words on the large sheets. The first letters spell the word GIVE. Ms. Huff described how gardens all around the world give people enjoyment and nutrition along with opportunities to interact with other people.

To connect with social studies themes 10 **CIVIC IDEAS** and theme 9 **GLOBAL CONNECTIONS**, Ms. Huff read aloud *The Curious Garden*.¹³ In this story, a boy discovers a garden that is struggling to grow in a city. He decides to help the garden grow, and together the boy and his garden transform the world. The book ends with the author asking the reader to ponder what would happen if the population of an entire city decided to cooperate with nature and devote themselves to helping the planet. Ms. Huff asked her learners to ponder that question as well. She played music featuring sounds of nature in the background as the third graders quietly wrote their answers. Then she called on any students who wanted to read their essays aloud, which encouraged more ideas to be exchanged among the class.

Joys of Gardening and Learning

Gardens have played important roles in civilization throughout time. Today, gardening offers an opportunity for young learners to apply social studies in their schools and communities honestly, naturally, authentically, and holistically.¹⁴ School-community gardening requires open and trustworthy collaboration during planning; sincere and dedicated cooperation with people during preparation; earnest and continuous commitment during planting and maintenance; followed by genuine care during harvesting.

Insights about gardening and learning apply to four phases of social studies curriculum development.¹⁵ Planning the garden requires integrating the activity so every procedure is included and sequenced purposefully. Preparing the garden

involves instruction to ensure goals are specific and achievable. Planting the garden calls for nurturing and maintaining growth and development. Producing the harvest showcases both teamwork and individual contributions, prompting creativity and self-expression.

Community gardening can make an important difference¹⁶ as young learners transfer the five ideals of powerful learning¹⁷ (meaningful, integrative, value-based, challenging, and active learning) and ten thematic strands of social studies into opportunities to learn more about gardening, themselves, groups (of both children and adults), and all aspects of their communities. By giving more attention to the world around them, young people are more likely to make deep personal connections and to commit to taking care of their community resources now and into the future.¹⁸ From their study of and involvement in school-community gardens, young learners often express their discoveries artistically, increasing their social and emotional learning, as well as their academic knowledge.¹⁹



Dahliyani Briedis/commons.wikimedia.org

Community Gardens in St. Kilda, Melbourne, Australia, decorated with colorful letterboxes, antique gates, and other artistic ornaments, 2007.

Notes

1. National Association for Multicultural Education.
2. USDA National Institute of Food and Agriculture, Cooperative Extensive System Offices: www.csrees.usda.gov/Extension.
3. American Community Garden Association: communitygarden.org/learn/faq.php.
4. David Wiesner, *June 29, 1999* (United Kingdom: Sandpiper, 1995).
5. Nansee Greeley and Theresa Reardon Offerman, "Garden Designer: A Short History of Gardens," *Mathematics Teaching in the Middle School* 43, no. 6 (1998): 428-433.
6. Laura J. Lawson, *City Bountiful: A Century of Community Gardening in America* (Berkeley, CA: University of California Press, 2005).
7. Garden Mosaics Science Pages, "History of Community Gardening," www.garden-mosaics.cornell.edu.
8. Lawson.
9. National Council for the Social Studies: www.socialstudies.org/standards/execsummary
10. Henry Cole, *Jack's Garden* (New York: Greenwillow Books, 1997).
11. Arden Bucklin-Sporer and Rachel Pringle, *How to Grow a School Garden: A Complete Guide for Parents and Teachers* (Portland, OR: Timber Press, 2010).
12. David Kilgour, "Tending the Garden of Democracy," *Canadian Social Studies* 33, no. 2 (1999): 38-39.
13. Peter Brown, *The Curious Garden* (New York: Little, Brown Books for Young Readers, 2009).
14. Freddie A. Bowles and Nancy P. Gallavan, "Easing Teacher Candidates toward Cultural Competence" (in preparation).
15. Linda Patchett, Alan Rossman, and Herbert J. Walberg, "Sprouts in Unexpected Places," *Journal of Staff Development* 21, no. 4 (Fall, 2000).
16. Raya Kuzyk, "Learning Gardens," *Library Journal* 132, no. 17, (2007): 40-43.
17. National Council for the Social Studies, *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment* (Silver Spring, MD: NCSS, 2010).
18. Deborah Adelman and Shamili Sandiford, "Reflections from the Garden: A Critical Literacy of Food Practice," *Radical Teacher* 78 (Spring, 2007): 5-10.
19. Laura Felleman Fallal, "Seeing the World in a Garden: Science and Art Curricula Synergy," *Science Scope* 32, no. 5 (2009): 52-55; Joan Twiss et al. "Community Gardens: Lessons Learned from California Healthy Cities and Communities," *American Journal of Public Health* 93, no. 9 (2003): 1435-1438.

NANCY P. GALLAVAN is a professor in the Department of Teaching and Learning: MAT Program, at the University of Central Arkansas in Conway, Arkansas

FREDDIE A. BOWLES is an assistant professor of Foreign Language Education Curriculum and Instruction at the University of Arkansas in Fayetteville, Arkansas

LITERATURE ABOUT GARDENING

Ages 4-8

- Bull, Jane. *The Gardening Book*. New York: Dorling Kindersley, 2003.
- Gibbons, Gail. *The Vegetables We Eat*. New York: Holiday House, 2008.
- Kite, L. Patricia. *Gardening Wizardry for Kids*. Hauppauge, NY: Barron's Educational Series, 1995.

Ages 9-12 and Older

- Dannenmaier, Molly. *A Child's Garden: 60 Ideas to Make Any Garden Come Alive for Children*. Portland, OR: Timber Press, 2008.
- Lovejoy, Sharon. *Roots, Shoots, Buckets, and Boots: Gardening Together with Children*. New York: Workman, 1999.
- Martin, Deborah L. *1,001 Ingenious Gardening Ideas*. New York: Rodale Books, 2007.
- Spohn, Rebecca. *Ready, Set, Grow! A Kid's Guide to Gardening: Grades 1-5*. Culver City, CA: Good Year Books, 2007.

Websites about Gardening with Young Learners

- CSU/Denver County Extension Master Gardener, "Gardening with Children," www.colostate.edu/Dept/CoopExt/4dmg/Children/children.htm.
- National Gardening Association, "Youth Gardens Grants Program," www.assoc.garden.org/grants.
- U.S. Department of Agriculture, "Nutrition Education: Gardening with Children," healthymeals.nal.usda.gov.

Community Gardening

- Capital District Community Gardens, www.cdcg.org/gardens.html.
- Chicago Botanic Gardens: School Gardening, www.chicagobotanic.org/schoolgarden/index.php.
- City of Portland, OR, Portland's Parks and Recreation: Community Garden Program, www.portlandonline.com.
- Rebel Tomato: Plotting Our Future One Garden at a Time, communitygarden.org/rebeltomato/shoots/basic-garden-design.php.