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The Harvest is the Best Teacher

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The Harvest is the Best Teacher: A Narrative on Food Insecurity and Community Gardening with Children and Adolescents

Gayle Mallinger and Molly Kerby

Abstract: As the national climate and attitudes toward local organic food progressed in the United States, farmers markets, school and community gardens, and campaigns to increase vegetable consumption among children and adolescents skyrocketed. Unfortunately, many communities are beginning to realize disparities exist in poverty-stricken neighborhoods in terms of access to fresh produce, education, and food programs. This narrative follows a community garden project over three years at the Boys & Girls Club in a semi-rural city in Kentucky. Participants prepared the garden site, planted seeds, and harvested vegetables as part of a Junior Master Gardener program in the afterschool and summer programs.

Keywords: community; youth education; child welfare; health

Discovering Fertile Ground

In March 2009, headlines across the United States exploded with groundbreaking news that first lady, Michelle Obama, would be planting a kitchen garden at the White House. Washington Post staff writer, Jane Black, enthusiastically reported the “1,100-square-foot garden will include 55 kinds of vegetables, including peppers, spinach and, yes, arugula” (Black, 2009). Though this would not be the first time in history Capitol Hill housed a garden (i.e., the “victory gardens” established in the 1940s), Americans rallied behind the first family’s commitment to growing wholesome organic food, supporting farmers, and tackling food disparities and childhood obesity in the United States. While farmers market had sprouted in masses across the country and public health officials had been sounding alarms about the hazards of the American diet for the decades, the White House garden became a precipitating factor in fueling a new food revolution.

Meanwhile, in the small semi-rural city of Bowling Green, Kentucky (KY), community gardens and markets began to gain momentum and permeate the community. Over a three year period, the two well-established local farmers market were joined by three competitive markets, including a city and county owned/operated outdoor local foods pavilion. The stage was set at the national level, trickled through the states, and manifested in our backyards. Newly sprouted non-profit organizations and local restaurants aimed their forces at creating sustainable

community foods systems and grant funding for food-related projects became readily available. It seemed everyone had combined forces to join the food revolution in Bowling Green, KY. Or, was this an idealist vision formed from a place of privilege? While on the surface the momentum was fierce, a careful glance at the customers at the Saturday morning markets revealed an extremely homogenous group of white, middle to upper-middle class patrons. Had we all missed the absence of people of color? Had anyone considered transportation issues or reaching out to those on public assistance? What about the community members on the “other side of the tracks?” And, most importantly, what about the children in those communities?

In light of this painfully obvious disparity, a shift in lens of privilege must occur so we can move from idealistic representations of harmonious social conditions and critically analyze social problems and stigma affecting communities of poverty. The inability to understand power and privilege often precludes the ability to accurately measure the success of community projects and programs designed to alleviate or solve a public problem. Though social dissonance is a constant factor of human life, the political and economic framework of the latter part of the twentieth century was built upon the argument that social change and equity are central facets of sustainability and resilience. This approach remains key in understanding the context of food security and justice in our communities.

Breaking New Ground

On a cold, blustery day, four faculty members from various colleges at Western Kentucky University (WKU), convened at the campus bagel shop to discuss a joint response to a newly announced funding opportunity designed to promote innovative intercollegiate collaboration. Although our fields of study were diverse, we shared a common interest sustainable gardening practices and were involved in the local community food movement. Molly, a professor from Diversity and Community Studies, gathered the group of faculty from Education (Jeanine) and Agriculture (Martin) and Social Work (Gayle). Armed with our respective lattes and herbal teas, we tossed around ideas that centered on our intersecting passion for sustainable gardens and social justice.

After a brief discussion, we decided to propose a sustainable community gardening project in the northern part of the city at the Boys & Girls Club with participants in the afterschool program. The Boys & Girl Club sits adjacent to a local elementary school (Parker Bennett) ranked in the 10th percentile in our state and classified as “needs improvement” by the state’s Department of Education. The majority of the children attending the elementary school participate in the afterschool program because of its close proximity. The elementary school and the Boys & Girls Club are separated by a patch of grass that has been converted to a small soccer field with a walking track outlining the perimeter. The surrounding neighborhood, now part of the Housing Authority, was once home to a thriving economy of local groceries, bakeries, “five and dimes,” gas stations, and hardware stores. Over the past few decades, the “mom and pop” stores have been forced out of business by “big box” conglomerates and chain grocery stores. The collapse of the economy coupled with “white flight” and gentrification have contributed to the poverty rate, isolation, and food desert in the neighborhood. In addition, Bowling Green, Kentucky has experienced an increase in the number of low-income and refugee families over the past two decades. The Housing Authority of Bowling Green provides residence to 1463 individuals; almost half

reside in female headed homes and nearly half of the residents are African American. In addition, 31.6% of those living in Bowling Green’s subsidized housing are refugees.

The racial composition of the elementary school is 35.90% African American, 4.66 % Asian/Pacific Islander, 36.60 % Hispanic, and 22.84 % White. More than 50% of the students at the elementary school speak English as a second language. African American male students’ kindergarten preparation scores are 17.5 compared to their white male counterparts’ scores of 51.6. Students at this school test at 21.67 % proficiency in science compared to the state average of 70.53 %; math and reading proficiency rates for students is also significantly lower than the state average .In the aggregate, the school ranked 651st out of 718 elementary schools in the state. The school has been eligible for the Community Eligibility Option (a universal free school breakfast and lunch service throughout the calendar year) for students in high-poverty areas since 2012 (Kentucky Department of Education, 2015).

In the last few years, school gardening projects have sprouted across the country. School gardens influence improved eating behaviors in children, specifically, increased fruit and vegetable consumption (Castro, Samuels, & Harman, 2013; Christian, Evans, Conner, & Cadel, 2012; Hazzard, Moreno, Beall, & Zidenberg-Cherr, 2012). In addition, school gardening, in concert with a supporting curriculum, has also been credited with deepening students’ mastery of science, math, and language arts, as well as enhancing their understanding of the environment (Beckrich, 2011; Graham, Beall, Lussier, McLaughlin, & Zidenberg-Cherr, 2005; Johnson, 2012; Lyon, & Bragg, 2011). The experiential learning that gardening provides also emphasizes problem-solving and critical thinking skills (Graham, et al., 2011). In addition to positive effects on students and teachers, school gardens provide numerous opportunities for parental involvement. Parents whose work schedules prohibit volunteerism during regular school hours can tend gardens after school or on weekends. The value of parental involvement in the education of children is well documented and indicates that parental involvement is tied to enhanced achievement,

regardless of race/ethnicity, social class, or parents' educational level (see, for example, Altschul, 2011; Kim, 2000; LaRocque, Kleiman, & Darling, 2011). Engagement of immigrant families, however, is especially challenging. In addition to limited English skills, these families experience cultural differences that limit their confidence, and therefore interaction, with their children's school systems (Carreon, Drake, & Barton, 2005; Md-Yunus, 2008). Barriers to parental involvement include language, literacy, and work schedules (Gutman & Eccles, 1999). Many children from immigrant parents or children of color are at an increased risk for poverty, lack of educational success, and minority stress. All of these factors lead to lower academic performance, compared to those of Caucasian, native born decent (Burchinal, Roberts, Zeisel, Hennon, & Hooper, 2006). It is extremely important for parents to be involved in their children's lives, especially those of immigrant descent. Parental school involvement is one factor that buffers the relationship between poverty and school achievement (Brody & Flor, 1998). Gardening is a universal language; thus, school gardens provide a venue for parents with limited English skills and limited formal schooling (Ozer, 2007).

The gardening project was designed to teach participants to plant heirloom vegetables and herbs that can be grown in the fall/spring school sessions with the intention of "seed-saving" to eventually create a community seed bank. Afterschool program participants would have increased opportunity to practice math and science skills through learning to plant, measure and document growth. This project would also increase opportunities for parental involvement, especially among refugee families with limited English skills. In addition, we hoped the project, shared by the four colleges, would allow a broad range of multidisciplinary student involvement. When colleges and universities provide a structure for students to contribute to the overall quality of the institution and bridge community, a sense of empowerment develops among faculty, students, and community stakeholders. As we envisioned it, the sustainable garden would also provide opportunities for parental involvement, consistent with the school's

Comprehensive Improvement Plan.

We approached the principal of the elementary school and the executive director of the Boys and Girls Club with the idea for the garden. They wisely suggested that we meet with several teachers, workers at the afterschool program, representatives from the Housing Authority, and parents. Gayle, Molly, and Janine facilitated this focus group held in the school's library. Unfortunately, none of the parents came to the meeting. Seated in children's chairs around a short rectangular table, the teachers, program worker, and Housing Authority representative provided key information from their unique perspectives about the community, including its strengths and areas of concern. Lack of parental participation was cited as the most pressing problem. Specifically, the principal shared that she was unable to convince any of the families to lead or even attend the Parent Teacher Organization. The teachers, principal, and representatives from the Boys and Girls Club and Housing Authority stated that they were hopeful that the proposed garden would promote parental involvement and community cohesion.

After the meeting, Molly, Gayle and Janine met over salads and tea and discussed the next steps to put the plan to fruition. Martin had already shared his interest in learning how seeds from the homelands of refugee families would grow in our area. In addition, he promised he and his group of students would be responsible for the "grunt work." Janine was most interested in providing opportunities for her students to develop curricula for the gardening project. She offered to develop a Junior Master Gardener certificate. This would allow the afterschool program participants the opportunity to engage in experiences that promote an appreciation for the environment and an understanding of sustainable gardening practices. Gayle and Molly had a shared interest in the interconnectedness among social-cultural, economic, and environmental issues and their combined impact on the lives of children in this community. Specifically, both were concerned with risk and protection and wanted to evaluate the efficacy of the garden project on building resilience.

In summer 2014, on a hot and humid day early in

June, Martin, Molly, and Janine rounded up a crew of college students, community members, and neighborhood children to break ground for the garden (Figure 1.). The spring months had been particularly rainy that year, so we were a month or so behind our intended schedule; we had to work fast. We began work at nine o'clock that Friday morning. Like a well-oiled machine, the children laid paper from a giant roll donated by the local newspaper. As the paper was laid, college student volunteers shoveled the mounds of dirt delivered by a borrow back-hoe over the area. By noon that day, the garden was ready for planting by students in Janine's Junior Master Gardener class.

Sowing the Seeds

With the garden space prepared, children in the

summer Junior Master Gardener program at the Boys & Girls Club began sowing seeds. They planted a variety of seasonal vegetables including squash, tomatoes, corn, lima beans, okra, watermelon, and a whole host of southern favorites. Volunteers and interns from WKU dropped by occasionally to help them with small projects for the garden as well. For example, one field student from the Department of Social Work led the children in making popsicle-stick garden markers and an automatic watering system using three-liter plastic soda bottles turned upside down. Students from the Department of Education began working with the participants on worm farming and composting in a small area next to the garden. Through each step, the children were taught basic information about photosynthesis, plant ecology, biological systems, and ecosystems.

Figure 1: The ground-breaking crew, June 2014.



During Kentucky's hot, dry summer months (June, July, and August), groups from around the community helped keep the garden weeded and

watered. One of the most rewarding relationships built from this project was with the Kelly Autism Program (KAP). The KAP provides services to individuals age

seven through young adulthood who have been diagnosed on the autism spectrum continuum. Two days a week, KAP summer participants spent the morning working with the Boys & Girls Club gardeners pulling weeds, watering, and learning about everything from plant identification to best practices in growing. The experience not only helped KAP participants learn to function in a social environment but provide the Boys & Girls club summer program children with an opportunity to work with others different from themselves. The summer progressed and the garden flourished. Vegetables were harvested weekly and placed in a box in the office for parents to take home when they picked up their children. One of the staff members at the Boys & Girls Club, Ellie, taught the children to make zucchini bread and other dishes from various vegetables in the garden. While the growing season in Kentucky is relatively short, crops are prolific in the summer months. Around the end of August, just as local schools start their academic year, production slows and plants begin to die out. This natural phenomenon sets the stage for the afterschool program in terms of harvesting, seed saving, and cold weather composting education.

The Harvest

As the temperature grew colder in southcentral Kentucky, final harvest time arrived. In conjunction with the afterschool program, the faculty and university students planned a celebration dinner using the yield from the garden. Our well-intended plan was to invite the families of the children who participated in the project and facilitate arts and crafts activities. Using the remaining funds from our internal grant, we purchased stepping stones, clay pots, and weatherproof paints. Several vendors from one of the local farmers markets contributed heirloom seeds for the children to plant in the uniquely decorated pots. Another vendor donated pickled okra, asparagus, and green beans to supplement our garden bounty). Kentuckians, like many southerners, enjoy their fresh vegetables dipped in cold and creamy ranch dressing. Molly, whipped together a luxurious dip to entice the children to taste the vegetables that they grew. Since we advertised the festivity as “dinner,” we decided at

the last minute to add pizza from a shop that uses only local, organic ingredients and Gayle baked desserts.

The executive director of the Boys and Girls Club suggested we hold the dinner from 4 to 6 p.m., since this was the time that most of the parents and guardians picked up the children. We had a fairly good response. Approximately ten adults and a host of siblings joined their gardeners for the celebration. We intended to start the evening with painting individualized stepping stones to be used as a perimeter for the garden. Unfortunately, Mother Nature had a different idea. The fall rain had been heavy and persistent and the stepping stones had been stored outside. The weather-proof paint would not adhere to the soaked stone.

Always a flexible bunch, we went to Plan B. We gave each child and family member a small clay pot to decorate. All seemed to enjoy the activity, as evidenced by lively interaction between families and laughter.

Following the arts activity, the dinner showcasing the garden’s herbs and vegetables commenced. The faculty were surprised, mystified, and a tad horrified to hear a mother scolding her child as she reached for a ripe cherry tomato. As she pushed the fruit out of her child’s hand, she exclaimed, “Don’t eat that; it’s nasty!” Although the loudest, she was not the only parent who discouraged a child from eating the produce from the garden. The pizzas, cookies, and lemon bars disappeared; all that remained was a beautiful vegetable platter and a container of barely touched ranch dip. We were disheartened but the executive director had a brilliant idea and initiated a competitive game to tempt the children to try the vegetables. She certainly knew her audience! After swaddling the various vegetables in dressing, the club members and their siblings ate a variety of the produce they grew.

Continued Growth

In spring 2015, Molly and Gayle received a grant from the Kentucky Governor’s Commonwealth Garden Initiative to revitalize, expand, and enhance the community garden at the Bowling Green Housing

Authority. The purpose of the grant initiative is to encourage healthy eating and increase access to locally grown foods in Kentucky communities. The project will receive assistance for one year including seed/transplants and one consultation on the planning and implementation of best practices in local gardening and production of food. The garden will also be used for community education and demonstration in conjunction with a similar project at the Boys & Girls club funded by a WKU IRCAP grant during 2014-15. In spring of 2015, both garden projects were infused into the curriculum of a public problem solving class.

Diversity and Community Studies (Public Problem-solving), a core course in the Diversity & Community Studies major, investigates the development of collective power, capacities, and responsibilities using community-based research (CBR). The collaborative approach of CBR equitably involves all partners in the research process, recognizes the unique strengths that each brings, and integrates theory with practice. Students worked in groups at the Housing Authority, the Boys & Girls Club, WKU Food Pantry, and WKU Project Grow to build a relationship between the community and the university. All of the projects focused on the economic, sociocultural, and environmental aspects of food insecurity in the United States. The students spent the last part of the semester in “the field” working side by side with their community partners in an effort to formulate solutions to real-life problems, identify key stakeholders, and create asset maps.

As part of their final, the four groups of students competed for a fictitious \$5,000 grant using data collected from the communities and applying the principles of community-based research. As one student said in reflection, “this is the first class I have had that actually let us apply what we learned to the outside world. I not only learned about community-based research but how people struggle in communities, how to communicate with people who don’t speak English, and even how to plant vegetables. Up until this point in my life, I had never seen a strawberry plant or squash seeds or anything like that. But I think the best part was working with

the community to solve problems together. I learned that the real experts are the people who live the problem. It was a great learning experience!”

Similarly, Gayle had several Social Work majors work on the project as part of their Directed Independent Study course. The students were particularly focused on food justice as an extension of social, economic, and environmental justice. Food justice examines the influences of race, class, and gender on the production and consumption of food (Alkon, 2014). In principle and strategy, remediating structural inequalities related to food distribution helps build coalitions with communities at risk (Gottlieb & Joshi, 2010). The students were passionate about Bowling Green’s marginalized communities having the right to grow and consume healthy, affordable, and culturally appropriate food. They rolled up their sleeves, helped plant, weed, and water. They met with children who were part of the afterschool gardening and discussed nutritional choices, and assisted with arts and crafts activities, including painting stepping stones to border the garden. In their reflective journals, the students reported that they learned a lot about lack of access to healthy fresh foods and its impact on the children’s food choices. One student said that “the social work department should require students in the community and organization practice course to work at the Boys and Girls Club so that they can really understand how this organization helps kids in this neighborhood.” Another student wrote, “This Independent Study changed the course of my life! I started the program sure that I was going to be a therapist and now I want to do community organizing. This really helped me see the relationship between micro, mezzo, and macro practice.” This particular student is now working on the extension of this project, the community garden at the Housing Authority. She is in the beginning stages of a research project looking at the impact of the garden on food insecurity.

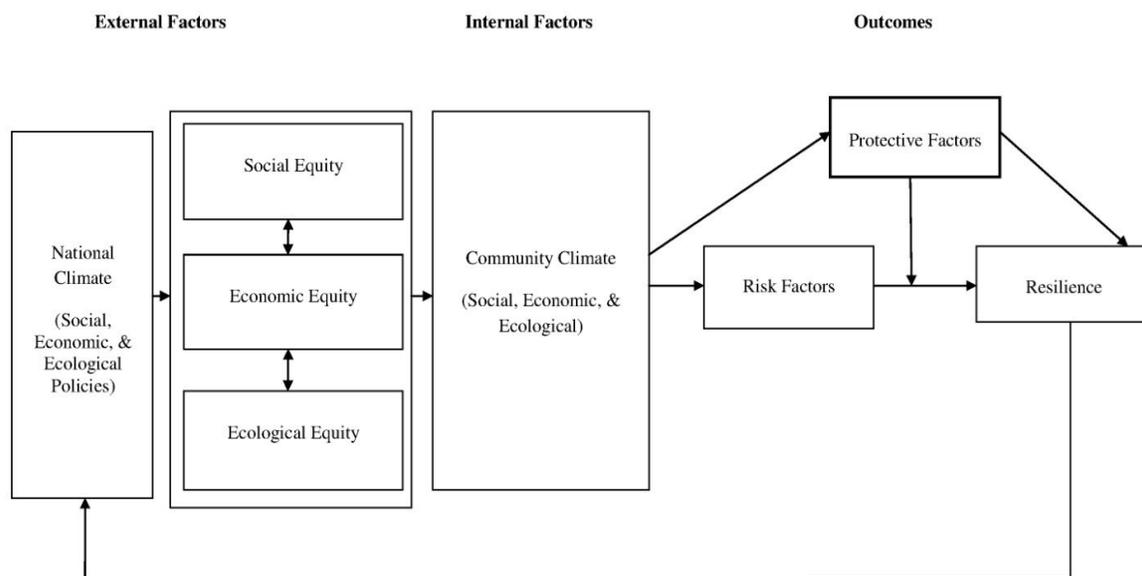
The “Forest for the Trees” Problem: Reflections

The garden project, now in its third year, was conceptualized using a new model of sustainability (Kerby & Mallinger, 2014) (Figure 2). The model begins with an understanding of national climate (social, economic, and ecological policies) and how it

effects the internal factors and outcomes of community resilience. In this narrative, the first lady's garden project at the White House sets the tone for the national climate by creating an atmosphere conducive to organic gardening, local food, and prevention of childhood obesity. This

positive national context paved the way for us to begin conversations in the northern part of our city about healthy eating and education.

Figure 2: A New Conceptual Model of Sustainability



Following the arrow (to the right) from national climate, factors of equity in this model directly impact community climate but are shaped by national climate and policies. For example, this project was created as a way to address a problem we observed in our city among marginalized communities affected by social, economic, and ecological inequity. The next set of factors in this model, the internal factors, we labeled community climate. While community climate is directly impacted by external policy related to equity, the internal social, economic, and ecological factors are defined more closely by perceptions of place and interpersonal networks (Pretty, 1990). In this case, the attitudes of residents in the neighborhood directly affect their children's eating habits and attitudes toward fresh vegetables. As we found

during our harvest dinner, the few parents attending the event were not particularly receptive to the notion of eating fresh food from the garden, therefore, their children shared the same attitudes. The principles of risk and resilience and ecological theory are the most crucial part of community programming and measuring effectiveness. In other words, the key to alleviating the problems associated with food insecurity in our communities is reducing risks through educational programs like the Junior Master Gardener. The idea is the model will become a cycling of learning and growing.

As we learned from this experience, we discovered the old adage rings true; sometimes you "can't see the forest for the trees." As we expanded the program, added partners and key informants, identified

additional assets in the community, we lost ground where we began; the Boys & Girls Club afterschool program. When working with community partners one of the most difficult tasks is to create a sustainable project without the presence of the “helpers.” Recent changes in staff have resulted in neglect of the garden. While the project in the Housing Authority flourished and the refuge population grew beautiful gardens, weeds sprouted in the Boys & Girls club plot.

Our plan for the next few years is to maintain our relationship with the community and help financially support both the Boys & Girls Club and the Housing Authority gardening efforts. The residents in the community are a cohesive group who tend to work, learn, and play together. Our hope is to encourage healthy eating habits, increase access to local food, and educate children about where their food come from and why it is important to eat responsibly. As an extension of our current efforts, we are exploring the possibility of working on the issue of the “unbanked.” One of local banks has agreed to teach children about finances and set up checking and savings accounts for those selling produce at local farmers during the summer months. As we move forward, our goal is to keep our emphasis on the children in the neighborhood; they are our future.

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