

Experiential Learning in Urban Gardens: A Case Study of Urban Garden Supporting Life Skills Development in New York City

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Abstract:

The impact of urban gardens is undeniable. As a food security implement, these gardens (and associated services) serve to provide neighbors, often children, a sustainable, reliable way to access healthy food. Research indicates that urban gardens also encourage community resilience, stronger cultural and ethnic identity, environmental stewardship, improved mental health, and better educational outcomes. Child-centered curriculum and programming that accompanies urban gardens focus on experiential learning – such that children learn by doing. A lot less is known about the ways in which children engage with urban gardens. This study takes an implementation and engagement approach to understand the way in which children engage with urban gardens. Partnering with an urban agriculture non-profit organization in New York City, we conducted a series of observations on two urban farming projects. These will include learning activities (such as understanding how plants grow) as well as experiential activities (such as planting, tending, and harvesting vegetables). Most importantly, observations will be coded for children’s input into changing or adapting their activities. Finally, qualitative interviews with program staff will be conducted to triangulate the aspects of urban gardening that children find most enjoyable and if any programming has been adapted to include children’s input. Prior research indicates that urban gardens impact the way children perceive themselves and their future. This change in beliefs and attitudes can lead to more perspective-taking and participation in lifelong healthy food practices and sustainable access to food. Therefore, this study will add to the sparse literature on how children’s voices can be integrated to reduce inequality and promote lifelong advocacy for sustainably sourced, healthy food.

Introduction:

Urban gardens have been in existence since the creation of the first-ever cities, however, have been recently studied for their benefits to communities and cities. The literature on urban gardens today mainly focuses on the outcomes of having urban gardens in cities and how it could be a tool used to aid in the process of making cities more green and sustainable. One study finds that gardening in an urban garden is positively associated with life satisfaction and a sense of community involvement.¹ With this information, it can be ascertained how people enjoy being involved with urban gardens which create more tight-knit communities. With this information, it can already be seen how urban gardens could be an enjoyable way of creating a more sustainable city. Another study states how those who participate in urban gardens gain a “connection with nature” and also says urban gardens bring together communities and aid in the sense of “reclaiming urbanized space” through organized clean-ups and improving the food

1. Blair, Dorothy, Carol C. Giesecke, and Sandra Sherman. “A Dietary, Social and Economic Evaluation of the Philadelphia Urban Gardening Project.” *Journal of Nutrition Education*. Elsevier, March 16, 2012.
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environment in the city.² This study further demonstrates the positive implications urban gardens have upon the community and those who participate. There is even one study that mentions how urban gardens promote healthy lifestyles that aid cancer survivorship.³ This is because it was shown how the gardens caused cancer patients to have an increased intake of produce, improved mental and physical health as well as an enhanced sense of community and social support. There are several more studies that come to the same consensus that urban gardens provide a sense of community and happiness, however, there are far fewer studies that focus on how urban gardens can aid in the understanding of healthy nutrition, especially for children. On the other hand, there are more studies mentioning how school gardens can help connect children and food sources. One study mentions how school gardens promote health by connecting children with food production and consumption.⁴ There are other studies that show that students improve a child's preference and willingness to taste vegetables, as well as increase the variety of vegetables they eat.⁵ School gardens are not only shown to strengthen children's diet, but also develop skill sets such as teamwork, leadership, and communication.⁶ Through these studies alone it can be seen how urban gardens and school gardens help build communities and educate about proper nutrition. These gardens are an invaluable tool to help communities and children learn how to become sustainable with their food and know how to eat nutritiously. The reason why so many of these urban gardens and school gardens accomplish these goals so well is through the programs they create to foster learning opportunities. However, not a lot is known about these programs in today's literature and this is what this paper focuses on. The question that this paper aims to answer is what programs urban gardens offer that are effective at educating children about where their food originates from and encouraging the consumption of more produce. The urban garden that this paper focuses on is located in Harlem, New York. The urban garden has several different gardens located in Harlem and includes hydroponics systems and programs that educate children.

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6. Robinson, Carolyn W., and Jayne M. Zajicek. "Growing Minds: The Effects of a One-Year School Garden Program on Six Constructs of Life Skills of Elementary School Children." horttech. American Society for Horticultural Science, January 1, 2005. <https://journals.ashs.org/horttech/view/journals/horttech/15/3/article-p453.xml>.

Materials and Methods:

Method: In order to learn more about the programs the urban garden offered, a set of interview questions was asked to several staff members, each specializing in different areas to gain more insight about the programs, and learn about the most effective way to educate and engage children. Each staff member gave consent to the interview and each and the recording of their answers. The questions varied based on the specialty of each person, however, some general questions are “are there any programs the urban garden offers to children?”, “does the urban garden work with schools”, “what are the children most excited for”, and “what age are the children who participate the most?” Each interview was voice recorded and listened back afterward to verify answers that were written down. The staff interviewed consisted of one farm worker, one program director, and one chef/cooking demonstrator. Pictures were also taken of the urban garden, mainly of the produce.

Results/Discussion:

Results: Farm Worker- After interviewing the farm worker it was learned that the urban garden had several events going on for children including a seven-week summer camp that teaches children how to farm through planting and harvesting as well as creating meals from their harvested crops. The main goal of the camp is to teach children about sustainability and live a more nutritious life. The farm worker also stated how the children work in the garden alongside another staff member who goes over lessons with them. These lessons consist of composting, watering plants, and more. After asking if the urban garden works with schools the farm worker stated that the urban garden partners with five different schools in Harlem. From a farm worker's perspective, it was said that the children were most excited and intrigued by the chickens in their chicken coup. When asked about the age range of the children who attended these programs it was said that they could range from one to twelve years of age.

Program Director- When interviewing the program director about what programs the urban garden provides for the children, in addition to the summer camp, they mentioned how the five schools in Harlem that the garden is partnered with also educated the children about hydroponic systems, have vegetarian cooking demonstrations, and lessons on where food is sourced from. They also mentioned how schools in the five different New York City boroughs sign up for farm tours. Another program that is offered in the garden is lessons specific to toddlers. These lessons use singing, instruments, toys, and dancing to introduce toddlers to farm animals and plants. When asked what program gets the children most excited they answered the lessons about the hydroponic system and the cooking demonstrations. Their reasoning was that during the hydroponic lessons children build the entire system and plant the vegetables by themselves, being able to witness and harvest the plants. It was said that this hands-on learning was not only engaging and fun but let children know exactly how their produce is created and where it comes from. It was also said the children enjoy the cooking demonstrations because it is also hands-on. The children have fun completing recipes by themselves and enjoy the recipes that are made with the produce grown in the urban garden. When asked if they thought children really understood where their food came from through the programs they offered, they answered yes. This is because most children believe that food comes from the supermarket, rather than farms, and through the programs that emphasize agriculture, the children have a revelation of where their food actually comes from. When asked what age group most often attends these programs the director responded that more younger children come from babies to preteens. When asked if the urban garden brought them hope that future generations would become more sustainable they responded that their urban garden has hundreds of children who participate in their programs, helps bring the community together, helps mothers raise their children, and

children learn where their food actually comes from. With all these factors the program director is very hopeful for a sustainable future. The final question asked to the program director was what they believe works to engage the children the most in the urban garden's programs. They responded that it is imperative that children have no restrictions on their exploration of the garden. It was said that children are naturally curious and would want to learn more about the urban garden on their own accord. That is why it is important not to set any boundaries and let the children interact with everything in the garden. The metaphor the director used was that the urban garden was a zoo and all the crops were their own exhibition. The metaphor for the zoo can be exemplified by how the urban garden is labeled and decorated. In fig. 1, fig.2, and fig. 3, it can be seen how the use of colorful and intriguing signs can lure children to explore the garden. In fig 2. and fig. 3 the signs encourage the use of senses through the signs that say "SMELL ME" and "TASTE ME." This demonstrates the encouragement of exploration in this urban garden.



Figure 1. A flower bed of produce in the urban garden located in Harlem. Jeong, Christopher. June 16, 2022. Photograph.



Figure 2. Produce with the sign "SMELL ME" at the urban garden located in Harlem. Jeong, Christopher. June 16, 2022. Photograph.



Figure 3. Produce with the sign “TASTE ME” at the urban garden located in Harlem. Jeong, Christopher. June 16, 2022. Photograph.

Chef/cooking demonstrator- When asking the chef about the programs that the urban garden offers for children they answered that they knew most about the cooking demonstrations. When asked what the curriculum was for the demonstrations they answered that the urban garden owns a “mobile teaching kitchen” that has utensils, cooking wear, stoves, etc. that visits the 5 partnered schools in Harlem to educate children about how to create vegetarian ethnic recipes, as well as the history of the recipe. The chef said the main goal of the cooking demonstrations is to show the children of Harlem, who originate from various different ethnic backgrounds, that their specific ethnic dishes are healthy and delicious. The chef mentioned how children in the United States are taught that dishes such as salads and steamed vegetables are healthy and wants to teach the children that their culture’s dishes are also extremely healthy. When asked if the children enjoy the cooking demonstrations they answered they the children are thrilled by the demonstrations because the children create the recipes all themselves as well as enjoy the food. Because the food is all vegetarian the chef said the children are often skeptical if the recipe would taste good, but are thrilled to find out how great it tastes.

Discussion: After interviewing the three workers in the urban garden in Harlem a lot of insight was gained into the programs they offered for children and what is most effective for educating children. The biggest trend that was noticed was that activities that were hands-on and required active participation worked the best for student engagement and enjoyment. Two notable activities are the cooking demonstrations and the hydroponic lessons. Both activities involve students learning through action, such as building a hydroponic system, planting crops, harvesting crops, and cooking recipes. Not only do the program activities help children enjoy the lessons, but it also enables the children to learn where their food is sourced from and how to eat proper nutritious food. This demonstrates the importance of hands-on experience, especially in children, and verifies that physical learning can keep children engaged. Another interesting point that was discovered during the interview process was how parents were bringing their children to the urban garden to keep them occupied rather than other locations such as the zoo or playground. This suggests that today’s parents understand the importance of sustainability education. Educating children at a younger doesn’t just expose children to sustainability efforts and proper dieting, it also kindles passion that helps future generations in the battle for

sustainability. It also becomes clear how this specific urban garden values children's exploration, through the colorful signs posted on each growing bed, as well as the numerous programs they offer. This focus on children not only makes this particular urban garden popular but is also a testament to building the foundation for change in the future.

Conclusion:

The purpose of this paper was to observe an urban garden located in Harlem and find out how to effectively educate children on proper nutrition and where food is sourced. This was done through qualitative inquiry where three separate interviews of three different staff members at the garden were performed. Each staff member provided insight into what children enjoyed in the urban garden and what methods of education were most productive. After conducting the interviews three main points were found. The first point found was that effective urban garden education must be done through primary experiences. The urban garden that was investigated in this paper had several programs that involved the children producing some sort of product to either learn about farming and food production or create nutritious meals. The programs this garden offered included the children building a hydroponic garden system and planting various vegetables, as well as having children create different vegetarian recipes to learn tasty, healthy meals. The second point that was discovered in this investigation was that urban gardens should encourage children's curiosity about the garden. This is because it would make the experience more enjoyable and children will learn more through their own experiences, which ties back to the first point. In order to encourage curiosity, gardens should include enticing signs, don't have restrictions that hinder a child's exploration of the garden, and programs that further spark the interest in the garden. The third and final point that was discovered was that today's parents are becoming more conscious of the need for sustainable change. This could be seen through the fact that parents are bringing children to urban gardens rather than other recreational places. By bringing their children to the urban gardens the parents are actively sparking the child's interest in the garden and what it offers. To summate, the urban garden located in Harlem should be a model for other urban gardens because of how engaging their programs are for children. The programs offered not only educated children on where food is sourced but also educated children on proper healthy nutrition. These programs are incredibly effective in sparking a child's interest in a sustainable future.

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