

**A Report on an Internship with SchoolFood's Garden To Café Program
at the New York City Department of Education**

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Executive Summary

- SchoolFood provides breakfast and lunch, using fresh, locally sourced produce where possible, to New York City school students for free and at reduced prices.
- The Garden To Café (GTC) program is an initiative of SchoolFood to prepare dishes for students using all (or nearly all) locally sourced fresh fruits and vegetables, sometimes from the school's own garden. Both the preparations of the food and the ingredients are often new to students.
- I have visited three schools during my time with the GTC program, and I noticed that students and adults seem to enjoy a lot of our dishes, especially when they are sweet, like roasted apples, brown sugar roasted carrots, and salads with sweet dressings.
- All of the GTC events that I have been to have been successful, with no food being left over at the conclusion of each school's lunch period.
- Participation in this project has greatly improved my communication and writing/organizational skills.
- These school garden programs have proved to be beneficial to students at the grade school level, improving the lives of students, their families, and the environment around them, as research shows.
- These programs provide the adequate nutrition education that young children need to improve their quality of life and change their eating habits for the better in the future.
- The growing popularity of school garden programs only means good things in the fields of health and nutrition.

Final Report- SchoolFood's Garden To Café Program 2016

Shemelkhay Murdakhayev

4/11/2016

During my time with SchoolFood's Garden To Café (GTC) program, I have learned a lot through my many new experiences. I have been involved in three GTC events at three schools. I have read and analyzed numerous articles and reports on school garden programs. I completed a Human Subjects Protection Training program, which has allowed me to visit different schools and conduct my observations. I have been involved in data entry for past GTC events, which has given me great insight on the project's objectives and its track record with other schools. I have been able to interact with many students and adults at some of these schools and this has allowed me to see how important nutrition education is when it comes to young students and the choices they make with the food they eat.

SchoolFood's mission is the following: "SchoolFood is committed to providing healthy food choices among our students and maintaining high nutritional standards by offering delicious and attractive menu options." In other words, SchoolFood aims to bring students a variety of tasty dishes made up of healthy and nutritious fruits and vegetables. All or nearly all of GTC's produce is locally sourced. SchoolFood as a whole locally sources food as much as possible, through programs such as New York Thursdays. Over the last six weeks, I have seen this mission statement fulfilled and I have seen the good that SchoolFood has done. I have seen their breakfast and lunch menus for participating schools and they are full of a large variety of food dishes that children and adults alike will enjoy. They continue to provide healthful meals for students for free and at reduced prices, and at the same time, they have met appropriate nutritional standards.

The GTC program has made it clear that fruits and vegetables are foods that students and adults alike can get behind, when they are prepared in a delicious, but still healthy, way. I was able to explore the different neighborhoods that these schools were located in, which allowed me to see the availability of fresh produce in those areas. Some of the neighborhoods seemed to lack adequate access to these foods, while others had a surplus of grocery stores that provided these items.

Attending these events has improved my communication skills with both parents, school staff, and kids. I was able to differentiate how a conversation would go with a parent, as opposed to how it would go with a much younger student. If a child asked about a dish that happened to be sweet, like a roasted apple, I would make sure to emphasize that it was sweet, which immediately caused the student to want to try that roasted apple. If a parent asked about the same dish, I pointed out how nutritious apples were, and the parent would immediately agree that the roasted apple was a healthy treat for their child.

I learned a lot during my time with the GTC project. During one event at a school, I decided to stand by our table, rather than sitting. As I stood, I noticed that we did not have as many students approaching our table to try our dishes. At that point, it was suggested to me that I should try sitting down to make myself look less like an authority figure and more like one of the students. After doing so, more students started making their way to our table and trying more of our dishes.

Participating in these GTC events has shown me that students tend to gravitate more toward fruits and sweeter dishes in general. Perhaps, in the near future, serving naturally sweeter dishes would continue to attract students to our tables, just as it has in the past. Using beet-sweetened dipping sauce for baked French fries was a good idea, along with sweeter dressings in

salads, like the apple-ginger vinaigrette dressing. These types of foods seem to resonate very well with many of the students, as well as the adults at most of the schools I have visited. This way, students have become more familiar with different fruits and vegetables that they may have never tried before, like red oak lettuce, beets, baby red romaine, and Bosc pears. Going forward, educating some of the students who approach the GTC table about what some of the ingredients are in the salad and other dishes would prove to be beneficial and helpful in their understanding of what they are eating and why it is so good for them.

Writing up observation reports on these events has allowed me to gain an immense amount of organizational and writing skills when it comes to structuring my reports, especially with the help I received in editing. I know that with future assignments, I will be able to produce more adequately designed papers and reports. Looking through past reports has also given me an idea of how I should plan out my assignments.

As the weeks went by during my internship with SchoolFood, I noticed that a lot of the people involved with the GTC program were heavily invested in the project's mission. This included the SchoolFood staff, the chefs, the school staff, parents, aides, and even the students. They understood our initiative and were behind it 100%. During one visit, the principal stopped by the cafeteria to show her support for the program, which was not something that I imagined would happen at one of these events. Similarly, many of the cafeteria aides and parents seemed glad to see us when we stopped by to hold an event. They mentioned that the dishes we were introducing to the students were an integral part of keeping the students healthy, while still allowing them to enjoy something delicious.

As someone who is interested in nutrition and wants to become a dietician, joining with SchoolFood's Garden To Café program has made it possible for me to learn more about the

health status of certain communities and their people. I have been interested in learning about children's nutrition status for a long time, because I knew that the nutrition habits that a child acquires at an early age travels with them into adulthood. I knew that young children needed the appropriate nutrition education in order to improve their lifestyle, and this project has shown me how much advancement is being made in this specific field. A lot of the coursework that I have taken (and am currently taking) at CUNY Hunter College as a part of the Nutrition and Food Science program has focused largely around these issues and concerns with children and different communities. This internship has given me a more hands-on approach in my field of study.

This internship has made it apparent that there actually are a number of active programs aimed at introducing fresh fruits and vegetables to young grade-level children. This was something I believed was nonexistent. Doing a literature review on garden/farm to café programs and their effectiveness has made it clear how valuable such programs are. My time here has demonstrated that a lot of vast progress is being made with people in this age group. It was a relief to see how much attention is really being given to all of these students. I know that school garden programs are bringing fresh produce to kids (and ultimately, their families) that they might not have had access to otherwise. Being a part of this program has allowed me to be involved in improving the lives of individuals, families, and communities. I am extremely grateful to have been given this opportunity.

A Description of the Garden To Café Program

Shemelkhay Murdakhayev

4/8/2016

SchoolFood's Garden To Café (GTC) program brings fresh and nutritious fruits and vegetables to students from the students' own school gardens and local New York City region farms. The mix of sources is determined by seasonal availability. The fruits and vegetables are usually used in a dish that is prepared the day before, and final preparations are made on the day of an event. A chef is involved in this process, from preparation of the food to serving it. Dishes have been made in the past using fresh carrots, squash, apples, and various greens (like baby spinach and romaine lettuce). Adults and students, alike, seem to enjoy the different additions to their lunches that are provided to them by the SchoolFood chefs.

This initiative allows young students to receive important micronutrient-dense foods that they would, otherwise, not always have easy access to. Currently, there are currently 127 schools registered with the GTC program, with another 6 to 8 schools waiting to join. Each of the schools involved in the regular GTC program usually has two events every year, and some of the schools are in the expanded GTC program, which means they receive more events throughout the year, along with supplemental education activities. In some cases, especially with special education schools, students are involved in the preparation of the dishes provided by the GTC project. There were 70 GTC events held from September 1 to December 31, 2015, 76 events on the schedule for January 1 to June 30, 2016, and 5 to 6 Summer 2016 events, for a total of over 150 events over the course of one calendar year.

The initiative introduces children and adolescents to new foods that they may have previously never heard of, or seen before. It expands their knowledge of what a typical vegetable

and fruit can taste like. When prepared a certain way, some vegetables can be both delicious and nutritious, rather than nasty and bitter, which is what many students (and adults) have come to learn through our events. GTC has made it possible for students to make suggestions to their caretakers at home about which fruits and vegetables they would like to have more often, which simultaneously opens up discussion about preparing more meals with this type of produce. SchoolFood's Garden To Café project has made it possible to bring more healthy options when it comes to lunch and dinner to students, their schools, families, and the rest of the environment around them.

Thoughts and Questions in Response to the GTC Reports

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3/4/2016

After reading the GTC Reports:

- I have noticed that special needs students/schools are given a large deal of attention.
- The surveys that are utilized are specifically tailored to younger children (simple descriptions of food, images, wording of reactions to food, faces)
- I noticed that parents are asked to rate the different food as well.
- A majority of the food gets a 'Delicious' rating by both adults and children.
- The response rate to the tastings is relatively high.
- Students' verbal reactions are recorded, which makes it easier to see how they really felt about the food and whether or not it should become a staple in their schools.
- I feel like determining the differences in responses between girls and boys would be helpful in distinguishing food preferences amongst the students to a larger extent.
- There seems to be a wide assortment of fruits and vegetables going into each and every one of these meals, which I believe contributes to the kind of success seen with children and adults in their approval of the different foods.
- Using so many different colorful fruits and vegetables has probably been an attractive feature to most of the children who participate in the tastings.
- The lack of signage is a prevailing theme throughout the reports.
- The preparation hours are relatively short, compared to the actual duration of the event.
- Having staff that speaks a variety of different languages would contribute to a wider array of responses received from participants, including children, parents, etc, that are not as fluent in the English language. Utilizing surveys of different languages would be helpful at these events as well.
- Adults gave greater approval rates of the food than the children.
- Introducing unique fruits and vegetables, like kale and beets, to children is a great way to show them that fruits and vegetables can actually be delicious.

- Gaining insight on the students' own method of cooking and enjoying their vegetables was a great idea. It shows that students and their families have implemented the use of healthier food options in their homes.
- Including school garden-grown fruit and vegetable dishes at the students' schools will allow them to obtain some fresh fruits and vegetables that they may not be getting when they are away from school. This is especially important because it gives students the opportunity to acquire the necessary vitamins and minerals that they may have otherwise been lacking before.
- How many of these types of events does SchoolFood's Garden To Café program attend and participate in on a monthly basis?

Literature Review / Bibliographic database with commentary - Evaluation of School Garden to Café Programs

Shemelkhay Murdakhayev

4/8/2016

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Introduction

Nutrition education has been a topic of great discussion in the past few years as obesity, diabetes, and several other chronic conditions have become more prevalent throughout the United States. Several initiatives have been taken to help inform the public about proper eating habits. There has been a lot of debate about providing individuals with adequate knowledge on nutrition at an early age. To meet these initiatives, numerous nutrition education programs have been instituted. Some policy changes have been put into place at the state and local levels in most places in the United States as well. More recently, farm-/ garden-to-café/school programs have become important models of nutrition education starting at the grade-school level, where students are able to directly see the types of delicious and healthy foods that their school gardens can provide with the different fruits and vegetables that can be grown there. Farm-to-school programs operate similarly, except the fresh produce is obtained from local farms, rather than the schools' own gardens. A variety of published work has shown the value of these garden-to-café initiatives and their effectiveness. However, there was a relative lack of literature regarding farm-to-school programs specifically involving chefs.

Articles reviewed

Robinson CW, Zajicek JM. Growing minds: The effects of a one-year school garden program on six constructs of life skills of elementary school children. *HortTechnology*. 2005;15(3):453-457.

ABSTRACT

The goal of this study was to assess changes in the life skill development of elementary school students participating in a 1-year school garden program. The Life Skills Inventory included statements for six constructs of life skills including teamwork, self-understanding, leadership, decision making skills, communication skills, and volunteerism. The students were divided into two treatment groups, an experimental group that participated in the

garden program and a control group that did not participate in the school garden program. Students in the control group had significantly higher overall life skills scores on the pretest compared to students participating in the garden program but the scores were no longer significantly different between the groups on the posttest scores at the end of the program. In addition, there were no significant differences in the control group's pretest scores compared to their posttest scores. However, the students in the experimental group did significantly increase their overall life skills scores by 1.5 points after participating in the garden program. Two internal life skill scales were positively influenced by the garden program; “working with groups” and “self-understanding.”

Commentary

One study looked to see what changes in life skills could be observed with participation in a school garden program. According to *Growing Minds: The Effects of a One-year School Garden Program on Six Constructs of Life Skills of Elementary School Children*, elementary school children who participated in their school's garden program were found to have acquired and enhanced their life skill scores on the Youth Life Skills Inventory that was administered to them (6). Two life skills that seemed to have significantly improved were “working with groups” and “self-understanding”. Students who had not played any role in the program did not see this improvement in their Life Skill Inventory posttest scores. This article and its results demonstrated the idea that involvement in such programs proved to be effective in enhancing students' internal abilities.

Joshi A, Azuma AM, Feenstra G. Do farm-to-school programs make a difference? findings and future research needs. *Journal of Hunger & Environmental Nutrition*. 2008;3(2-3):229-246.

ABSTRACT

Farm-to-school programs are increasing in number across the United States, yet research and evaluation of programs is limited, with only a few studies published in refereed journals. For this article we reviewed 38 studies and report on 15 studies that met the inclusion criteria. These preliminary findings are related to the impacts of farm-to-school programs on behavior of students, school teachers and administrators, food service, farmers and producers, and parents, as well as knowledge gains and attitudinal changes. Further evaluation and research are needed to improve practice and assist programs in meeting their goals.

Commentary

Another article, *Do Farm-to-School Programs Make a Difference? Findings and Future Research Needs*, looked to evaluate various farm-to-school programs that had been enacted over a certain period of time. The article found that student participation in school meals resulting from the farm-to-school initiatives had increased in several instances, with nearly half preferring the farm-to-school meals rather than what their schools provided initially (2). A study found that students preferred the salad bar offered as part of the garden-to-café initiative, over the twelve hot entrees provided on the same day.

In a review of the farm-to-school literature, Joshi et al. found that, based on data from six studies, the average increase in student meal participation was 9.3% (2). These schools had a mix of students eligible for free, reduced-price, and paid meals. The increase achieved by each of the Farm To School (FTS) programs ranged from a modest 1.3% to an impressive 16.0% (this range includes a seventh school which was a Provision II Universal School Meals school, which was

not included in the 9.3% average). This is a very encouraging result: farm-to-school programs can increase participation in meal programs. However, the answers to some important questions are unclear from the Joshi et al. paper. To fully understand what this increase in participation was, and how it was achieved, we would need to find the papers cited in Joshi et al., and answer the following five questions.

1.) We would need to fill in this table:

Type of program → Participation ↓	An FTS program, which provides an FTS meal in the meal program, and only the FTS meal is available in the meal program	An FTS program, which provides an FTS meal in the meal program, and both FTS and regular meals are available in the meal program	An FTS program, which does not provide an FTS meal in the meal program, so only regular meals are available in the meal program
Participation, before the FTS program started			
Participation, after the FTS program has been in effect for X amount of time.			

2.) How is “participation” defined? Absolute numbers of students who take a meal?

Percentage by enrollment? Percentage by attendance?

3.) How is “increase” defined? Post – Pre (i.e., the change on an absolute percentage scale)?

Post/Pre (i.e., the increase relative to the baseline measurement)?

4.) The FTS programs’ interventions need to be described in detail, and the regular meal program meals should be similarly described.

5.) How is 'farm-to-school' (FTS) defined in each article different from how it is defined in this literature review in general, and in GTC?

There was an increase in their fruit and vegetable consumption at school and at home, as well. Similarly, the article mentions that numerous studies had shown that dietary behaviors improved among students with the introduction of different fruits and vegetables from their school's 'farm-to-school' initiative. Knowledge about the origins of various foods was heightened, along with knowledge about different food labels. Local and seasonal foods became integrated into the school's own meal preparations and those who prepared the food for the students even began using more raw vegetables in their recipes. Parents of some of the students made progressive changes in their grocery shopping habits and the meals they prepared for the family at home (2). This article represents the idea that garden/ farm to school programs can lead to positive outcomes in not just the schools that students attend, but also in the children themselves, their families, and the world around them.

Ratcliffe MM, Merrigan KA, Rogers BL, Goldberg JP. The effects of school garden experiences on middle school-aged students' knowledge, attitudes, and behaviors associated with vegetable consumption. *Health Promot Pract.* 2011;12(1):36-43.

ABSTRACT

This study describes the effects of garden-based education on children's vegetable consumption. As part of a pre-post panel study, 236 students complete the Garden Vegetable Frequency Questionnaire and 161 complete a taste test. Results indicate that school gardening may affect children's vegetable consumption, including improved recognition of, attitudes toward, preferences for, and willingness to taste vegetables. Gardening also increases the variety of vegetables eaten. Future research should explore whether effects persist over time and if and how changes in children's behavior affect the

behavior of their caregivers. Implications of study findings for policy and practice are discussed. Suggestions for applying results to future health promotions are provided.

Commentary

The Effects of School Garden Experiences on Middle School-Aged Students' Knowledge, Attitudes, and Behaviors Associated with Vegetable Consumption, an article highlighting the impact of these school garden programs, reveals that they can be incredibly effective in improving students' intake of important fruits and vegetables. On that same note, the article makes it clear that with the rise in popularity of these programs, there may apparently be much greater approval, support, and funding for them (5). This shows how the significance of such programs has been made apparent (and has the potential to be made apparent) at the local, state, and national levels. With the help of these programs, students have been able to distinguish between large varieties of vegetables. Students have begun to prefer vegetables as well, resulting in a rise in trying many different types, and ultimately, greater consumption of vegetables overall (5). These findings show that exposure to garden/farm to café programs amongst school-aged children has led to countless desired outcomes.

Morgan PJ, Warren JM, Lubans DR, Saunders KL, Quick GI, Collins CE. The impact of nutrition education with and without a school garden on knowledge, vegetable intake and preferences and quality of school life among primary-school students. *Public Health Nutr.* 2010;13(11):1931-1940.

ABSTRACT

Objective: To investigate the impact of school garden-enhanced nutrition education (NE) on children's fruit and vegetable consumption, vegetable preferences, fruit and vegetable knowledge and quality of school life.

Design: Quasi-experimental: 10-week intervention with nutrition education and garden (NE&G), NE only and control groups. Fruit and vegetable knowledge, vegetable

preferences (willingness to taste and taste ratings), fruit and vegetable consumption (24 h recall \times 2) and quality of school life (QoSL) were measured at baseline and 4-month follow-up.

Setting: Two primary schools in the Hunter Region, New South Wales, Australia.

Subjects: A total of 127 students in Grades 5 and 6 (11–12 years old; 54 % boys).

Results: Relative to controls, significant between-group differences were found for NE&G and NE students for overall willingness to taste vegetables ($P < 0.001$) and overall taste ratings of vegetables ($P < 0.001$). A treatment effect was found for the NE&G group for: ability to identify vegetables ($P < 0.001$); willingness to taste capsicum ($P = 0.04$), broccoli ($P = 0.01$), tomato ($P < 0.001$) and pea ($P = 0.02$); and student preference to eat broccoli ($P < 0.001$) and pea ($P < 0.001$) as a snack. No group-by-time differences were found for vegetable intake ($P = 0.22$), fruit intake ($P = 0.23$) or QoSL ($P = 0.98$).

Conclusions: School gardens can impact positively on primary-school students' willingness to taste vegetables and their vegetable taste ratings, but given the complexity of dietary behaviour change, more comprehensive strategies are required to increase vegetable intake.

Commentary

This article, *The Impact of Nutrition Education With and Without a School Garden on Knowledge, Vegetable Intake, and Preferences and Quality of School Life Among Primary-School Students*, looked at changes in Australian students' behavior when nutrition education was paired with a school garden and/ or the absence of a school garden. A study was conducted to measure preferences for fruits and vegetables amongst students who participated in both nutrition education with school gardening and without school gardening. Both groups of students were found to have agreed to taste vegetables more often than those who were in the control

group (no nutrition education or school gardening). Students in the experimental group rated the taste of lettuce and peas much higher than those in the control group. Students with both gardening and education seemed to rate most vegetables higher than either the students only receiving nutrition education and the control group. It is believed that with direct exposure to such fruits and vegetables through gardening-education, students' preferences for fruits and vegetables were heightened. The validity and reliability aspects of this type of study can still be challenged since not many evaluations of such nutrition education and gardening programs exist, but the structure of such an intervention is seen as promising in establishing healthy alternatives to schools and communities (10).

Blair D. The child in the garden: An evaluative review of the benefits of school gardening. *The Journal of Environmental Education*. 2009;40(2):15-38.

ABSTRACT

Although educators widely use school gardens for experiential education, researchers have not systematically examined the evaluative literature on school-gardening outcomes. The author reviewed the U.S. literature on children's gardening, taking into account potential effects, school-gardening outcomes, teacher evaluations of gardens as learning tools, and methodological issues. Quantitative studies showed positive outcomes of school-gardening initiatives in the areas of science achievement and food behavior, but they did not demonstrate that children's environmental attitude or social behavior consistently improve with gardening. Validity and reliability issues reduced general confidence in these results. Qualitative studies documented a wider scope of desirable outcomes, including an array of positive social and environmental behaviors. Gardening enthusiasm varies among teachers, depending on support and horticultural confidence. (Contains 6 tables.)

Commentary

In *The Child in the Garden: An Evaluative Review of the Benefits of School Gardening*, school gardening is referred to as a tool that allows individuals to see the origins of their actual food. Specifically, the article brings up the idea that, with gardening, children are able to see that their food does not come pre-packaged from nature, but rather that it comes from growth over time from a garden. Gardening allows young children to familiarize themselves with a variety of fresh fruits and vegetables, and to heighten their taste preferences to something more than just sweet and salty (1). After looking at several research studies done on the effects of school gardening, it was found that gardening provided students and their parents with the opportunity to gain some sort of nutrition education that encompassed all aspects of food (environmental, agricultural, health, etc.) (1). Students, their schools, and their families were able to better help their community thrive with this type of program. The article points out that in order to acquire greater research findings involving the results of school- gardening, an appropriate longitudinal study and valid instruments are crucial, and limitations regarding teacher and ethnicity effects must be accounted for.

Coates M. The effects of food studies programming on food participation and dietary choices. 2010. Masters of Arts in Education Action Research Papers. Paper 1.

ABSTRACT

The intent of this action research project was to determine if food studies programming has an effect on children's participation levels in food preparation, procurement, and making dietary choices. The study was conducted during an eight week, grant-funded after-school pilot program focused on promoting active lifestyle choices and healthful eating habits. The study involved fourth and fifth grade children enrolled in a tuition free program sponsored by a local Park and Recreation department. Data was collected from both children enrolled

in the program and their parents or guardians. Sources of data collection included surveys, participant artifacts, group discussions, and researcher observations. Results of the study showed that the children had a high interest in cooking and learning about where food comes from and various processing methods. The research also showed wide community support for food studies programming and an underlying concern about the health and diet of local youth. Based on the study's findings, the researcher will continue to develop and refine food studies curricula and course offerings for youth in the same community in which the initial study was conducted.

Commentary

This article looks at the effects of an after-school youth program that aimed to improve students' knowledge about food and where it comes from, and improve their dietary choices. It came about from an increase in health problems reported by school nurses. One of the key aspects of this eight week pilot program included having a guest chef provide cooking lessons, which involved hand-cranked pasta making, garnishing, etiquette, and table setting (11). As this went on, students' reactions regarding new foods and whether or not they tried the foods they played a part in cooking, were recorded. A questionnaire was used to assess the outcome of this project, as well as the students' own personal experiences with cooking and food at home. It was found that students really wanted to be involved in a more hands-on approach to obtaining and making their own food, and they had indeed gained knowledge about where their food came from (with the help of the program). At home, though, students mentioned that they almost never get to participate in the cooking; in fact, the only participation they had was in doing chores (involving cleaning). More students really wanted to be more involved in the cooking process of the food they were eating, but their parents would not permit it at home. Students even said that they were capable of doing things on their own when it came to cooking, like making scrambled

eggs, quesadillas, and grilled cheese sandwiches (11). This article showed that grade-school students can acquire and use their knowledge on food and its origins to improve their own dietary decisions, and soon enough, their own health.

Conclusion

All of these articles depict the idea that a garden/farm to café/school program is a vital component of nutrition education. Students, faculty, parents, and the community all benefit from these programs. An overlying theme seen with some of these articles is that not enough research has been done on such programs, which may lead to gaps in understanding the exact effectiveness that they may have on school children and the different facets of their lives. Some concerns over validity and reliability of research on such programs have been made apparent as well. Only a very small amount of literature exists regarding farm-to-school programs led by chefs. The available research, though, does seem to point in a positive direction, demonstrating that school garden programs are a crucial part of the learning experience for children and the world around them. More of these initiatives may be on the rise.

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All Garden To Café (GTC) Event Reports

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Introduction to all observed events

In the months of March and April 2016, I visited three different schools in New York City, alongside SchoolFood’s Garden to Café program. These Garden to Café events were carried out at P.S. A, P.S. B, and P.S. C. We worked with these schools, consisting mostly of pre-K to 5th grade students, to bring these students numerous dishes made with fresh fruits and vegetables from local farms and the schools’ own gardens. The following reports describe these three events.

(1) Garden to Café Harvest Event Report- P.S. A 3/11/16

Introduction

At a Garden to Café (GTC) event at PS A on the Lower East side in Manhattan, K through 5th grade students and staff/ parents were served a salad and fruits. The produce used at the event was sourced from local greenmarkets. Students seemed to prefer the fruits most of the time, whereas the adults preferred the salad. About 250 4-ounce cups of the salad were distributed, along with nearly an entire box full of apples. The event lasted from 10:35am to 1:00 pm. We had enough food for all lunch periods, except the final one, which seemed to be allocated to the third grade, because we ran out of the salad by then. Overall, the event went well.

Some Observations

The GTC table was set up towards the front entrance to the cafeteria (near the doors leading into the hallway). Trays of salads were brought out and the chef portioned the salad into approximately 4-ounce cup servings. One flat tray held these cups. A box of washed Gala apples and a box of washed small Bosc pears were set up on either side of the table for students and adults to have an option in the type of fruit they wanted to eat.

At around 10:35 am, K students came to the cafeteria for their lunch period. Most of them ran around and eventually went to their designated lunch tables. The chef went around the cafeteria after the students received their meals, and distributed the salad and fruits to anyone who wanted to try it. K students were hesitant to accept the salads, but were more so open to trying the fruits (mainly pears).

Around 11 am, 1st graders were brought to the cafeteria. They had the similar reactions to the salad and fruits as the K students, but were slightly less hesitant to accept the salad this time around. Like the K students, when one of the students agreed to try some of the salad or fruits, another student followed in their footsteps.

The fourth and fifth grade students approached the GTC table upon arrival into the cafeteria. They were immediately curious about what was going on and what food was being served. They were more verbal in their reactions than the K or first grade students. Fifth graders were willing to try (and preferred) the salad more so than any of the other grades. Some of the fourth and fifth grade students even came back for second (and sometimes third) servings of the salad.

The tendencies present with the 2nd graders were intermediate to the 1st and 4th graders. They were excited about the fruits and were okay with the salad.

When it came to the adults, many of them really enjoyed the salad. Many of the parents and school staff tried the salad and came back for second and third servings. The oil in the cilantro dressing of the salad was an important attraction to the adults (as well as the healthy aspect of eating greens), like the sweetness of the apples and pears was an important attraction to the children.

Overall, there was a lot of curiosity amongst the students over the red leafy vegetables present in the salad, which was obviously new to them. Throughout all of the lunch periods, the cafeteria remained very loud with students talking to one another and cafeteria aides calling out certain instructions to the students. There was a lot of running around amongst the students as well. Knowledge of the fruits seemed to be more prevalent than knowledge about vegetables and the salad altogether. The yellow cherry tomatoes and onions were found to be a favorite with the students when it came to the salad.

Student Comments

“Apples were the bestest.”

“Where did you get this?” (Referring to salad)

“Are the apples from trees?”

“Are the apples fresh?”

“Are the apples ripe?”

“What is this?” (Referring to salad)

“What’s in this?” (Referring to salad)

“Can I have more/ another one?” (Referring to both salad and fruits)

➤ **Students were very curious about the food itself.**

Adult Comments

“Who are you guys?”

“Where are you guys from?”

“What are you guys doing here?”

“The salad is great with some of that oil.”

➤ **Parents and staff were very curious about the GTC event and its purpose.**

The Cafeteria

The cafeteria in the school seemed to have slightly dim lighting. It was very loud and slightly chaotic with students running around everywhere. There seemed to be a lack of control over the

students present. There were a lot of nice, colorful art pieces surrounding the columns.

Although posters and imagery of some foods were present, there were only a few. More of these posters depicting various fruits and vegetables (and some of their benefits) would be appropriate for the setting. They were only found toward the back of the cafeteria, where the students lined up to receive their food. It may be fitting to place them all around the cafeteria. The self-serve salad bar station was not placed as prominently as expected. It was placed toward the left side of the cafeteria near one of the tables, which seemed to place it completely out of one's sight (unless you were sitting next to it). Perhaps placing the salad station at the back of the cafeteria (where students received their meals) would make it more visible and apparent. There was also a lack of signage regarding what food was being served at the GTC table, which made it impossible to allow the students and adults to see what was going on from a distance.

Conclusion

Overall, the event turned out to be a success. The salad was served in its entirety. The pears were gone as well, with only a few apples left to spare. Students and adults both enjoyed the food that was offered. The students learned a little bit about some of their own preferences for certain fruits and vegetables, which they may not have known about previously. SchoolFood's Garden to Café program served its purpose in bringing a tasty and healthy addition to the students' meals using nutritious fruits and vegetables.

(2) Garden to Café Harvest Event Report- P.S. B 3/18/16

Introduction

At a Garden to Café (GTC) event at P.S. B in Red Hook, Brooklyn, K through 5th grade students and staff/ parents were served baked ‘French fry’ potatoes and a variety of apples (Empire, crimson, and pink lady). The produce used to prepare the food was sourced from local Greenmarkets. Students and adults alike seemed to enjoy the fries just as much as they did the apples. About 300 4-ounce cups of the fries were distributed, some of which were served with dip and others were served without dip. The event lasted from 11:35am to 1:20 pm. We had enough food for all lunch periods, with only the dipping sauce for the fries left over.

Some Observations

The GTC table was set up towards the back entrance to the cafeteria (near the doors leading outside into the school’s playground). Trays of baked potato wedges and dipping sauce were brought out and the chef portioned the salad into approximately 4-ounce cup servings. One flat tray held these cups. A box of washed Empire apples and a box of washed pink lady apples were set up on either side of the table for students and adults to have an option in the type of apple they wanted to eat.

At around 11:35 am, the first round of students entered the cafeteria. They were led to their tables by cafeteria aides and/ or teachers. After they were able to get their meals, students were allowed to approach the GTC table. They showed interest in both the fries and the apples. There seemed to be a similar preference for both the fruit and the fries, with more confidence in choosing the apples than in the fries. Although no distinct preference was shown for either option, students were slightly hesitant when it came to the fries, even though they still agreed to try them. With the apples, students were more knowledgeable in their choices, as if they already knew they would like the apples. This type of behavior remained prevalent throughout the event with all of the other grade levels.

From one lunch period to the next, students underwent the same process of being led to their tables and then allowed (table by table) to approach the GTC table. Some students would choose

to get their fries without sauce, while others wanted to try the sauce. The dipping sauce was thought to have been made with a tomato or apple base; the students were undecided in this sense. The fact that it had some brown sugar added to it was a big plus with the students, as they preferred its sweet taste. The variety of apples was a good idea; students were able to choose which apples they wanted based on what they knew about them. Pink lady apples were popular for their sweeter taste, while Empire apples were sometimes chosen for their much larger size. The apples grabbed the students' attention first upon arrival at the table; they were the first things the students asked to have; the fries followed closely after.

Overall, there was a lot of curiosity over the dip amongst both adults and students. When asked what the dip was made of, adults and kids assumed it was tomatoes, with a hint of apple. Some thought it was very much like marinara sauce. Both assumed it contained some type of apple ingredient like applesauce or apple cider vinegar. Adults were able to guess carrots, but no one guessed beets. The adults were glad to hear that the potatoes were actually baked rather than fried. There was not much curiosity about the seasoning of the fries.

Student Comments

- “What’s good about it?” (referring to fries)
- “What is this?” (referring to dip)
- “Is this ketchup?” (referring to dip)
- “It looks like marinara sauce.” (referring to dip)
- “Are these French fries?”
- “Can I have them with/ without the dip?”
- “Can I have more dip?”
- “What kind of apple is this?”
- “Can I have more/ another one?” (referring to both fries and apples)
- “It’s sweet.” (referring to the dip)
- “Are these pears?” (referring to the apples)

- “Are these apples with cinnamon?” (Frequently asked- referring to apples)
- Students were intrigued by the dip.

Adult Comments

- “Are these French fries?”
- “They’re baked?”
- Parents and staff were happy about the healthier French fry alternative.

The Cafeteria

Upon arrival to the cafeteria, I noticed that the salad station was placed more prominently (compared to the GTC event at P.S. A). There was even an aide present to assist the kids if they wanted something from the salad bar. Although, not many students approached the station, it was still made apparent that it was there. Perhaps, a little more emphasis should be given to the salad station in order to engage the students. Some signage may be appropriate. Although there was a SchoolFood sign and a SchoolFood menu present near our table, it did not seem to be enough. A few signs advertising our food for the day might be a good addition to our initiative. The cafeteria was loud, but the students were kept much more organized and controlled this time around. The cafeteria aides did a great job of keeping the students in line and even getting them to be quiet (by clapping and getting the students to clap along to a specific tune) when it was time to leave the cafeteria.

Conclusion

All in all, the event was a great success. The fries lasted for all lunch periods and were gone by the last one. I noticed that preferences for the fries and apples remained very similar throughout all of the lunch periods. This may have been due to the idea that French fries are a staple food in the American fast food diet. Apples are a familiar fruit amongst most individuals, which may have been why students of all ages (grade levels) gravitated toward them almost immediately. Nonetheless, SchoolFood’s Garden to Café project did exactly what it aimed to do; it served students delicious and fresh fruits and vegetables that they enjoyed.

(3) Garden to Café Harvest Event Report- P.S. C 4/1/16

Introduction

At a Garden to Café (GTC) event at P.S. C in Chelsea, Manhattan, pre-K through 5th grade students and staff/ parents were served a variety of food items. These included 200 Garam Masala roasted apples, 200 brown sugar roasted carrots, and 300 salads containing baby spinach, red oak lettuce, and baby red romaine with an apple-ginger vinaigrette dressing. One bushel of washed Blondee apples and one bushel of washed Empire apples were provided as well. The produce used to prepare the food was sourced from local NYC farms. Students and adults alike seemed to enjoy all four items. The food was divided into individual 4-ounce cups and distributed. The event lasted from 10:05am to around 1:00 pm. We had enough food for all lunch periods.

Some Observations

The GTC table was set up towards the front of the cafeteria (near the kitchen). Trays of Garam Masala roasted apples, brown sugar roasted carrots, and salad were brought out, which the chef portioned into approximately 4-ounce cup servings using serving spoons and tongs. Several flat trays held these cups. A box of washed Empire apples and a box of washed Blondee apples were set up on one side of the table for students and adults to have an option in the type of apple they wanted to eat.

At around 10:05 am, the first round of students, consisting of several grade levels, entered the cafeteria. They were led to their tables by cafeteria aides and/ or teachers. After they were able to get their meals, students were allowed to approach the GTC table. They showed interest in most of the food. There seemed to be a similar preference for both the vegetable and fruit dishes.

Apples were a favorite among the students as usual. This type of behavior remained prevalent throughout the event. Toward the end of the first period, students seemed a bit more hesitant to take something from the GTC table. By the next lunch period, students were interested in the food once again.

At one point, it was very apparent that the brown sugar roasted carrots had become very popular among the many food dishes (excluding apples). One parent/aide noted that his son loves carrots

and would love the roasted carrots; he plans on making them for his son at home. At the beginning and toward the end, the salad, though, seemed to gain quite a bit of traction with both students and adults. The adults even wanted the recipe for the apple-ginger vinaigrette dressing so that they could make it at home.

Something that really stood out during this event was that more students than usual really wanted the carrots and cherry tomatoes that were on display, than the salad itself. This may have been due to the idea that students were knowledgeable about the taste of raw carrots and tomatoes, and found them to be appealing. Another occurrence that stood out was that many of the same students kept coming back for more apples from the boxes, than usual. An aide informed us that some of these students kept throwing the apples out after just one bite. This seemed very unusual, and I am still unable to formulate a clear idea as to why that was. In terms of plate waste, there did not seem to be many full plates being thrown out. Most of the plates seemed nearly empty, which might indicate that students were really enjoying the food they were being served.

Student Comments

- “Can I have more salad?”
- “I love apples.”
- “Can I have more carrots?”
- “I’m a vegetarian.”
- “Ewww” (referring to salad)
- “Can I have another apple?”
- “I’m allergic to tomatoes.”
- **Students really seemed to enjoy the vegetables and fruits altogether.**

Adult Comments

- “The carrots are delicious. What’s in them?”
- “The carrots are delicious. My son loves carrots. I should make this for him.”

- “Thank you. This was great.”
- “What is this?”
- “I love the dressing.” (referring to salad)
- Adults really seemed to enjoy the vegetable dishes and the way they were prepared.

The Cafeteria

Upon arrival to the cafeteria, I noticed that the salad station was placed less prominently (compared to the GTC event at P.S. B). It was put aside near a corner of the cafeteria. There did not seem to be an aide present to assist the kids if they wanted something from the salad bar. It did not seem like many students (or any, for that matter) approached the station. At one point, I figured that the salad station was closed or empty, until I checked and noticed that it was full of different vegetable options. Perhaps, a little more emphasis should be given to the salad station in order to engage the students.

Also, this time around, there was a lot more signage present in regards to the GTC event and the food being displayed at the table. The food items were appropriately and adequately labeled using pieces of computer paper. The salad was labeled with all of its ingredients, which was lacking at other events that I'd attended. Aside from these labels and signs (provided by the chef), there was no 'official' signage of the GTC event. Maybe next time, we can have the schools organize some form of vibrant and colorful signs of an upcoming GTC event, including the food we would have available; something more visually appealing should bring more attention to our initiative, as well as provide parents and staff with information about our cause and our food.

In regards to the placement of the GTC table, I noticed that it did not hold a prominent position in the cafeteria. It was very easy to miss. The table practically blended in with the rest of the students' tables. Keeping the GTC table away from the other tables at other events allowed it to stand out and made it more visible to the students and adults.

I also found the cafeteria to be very well lit, but very loud and raucous, too. Students were running all over the cafeteria, chasing each other and yelling. I could barely hear myself

speaking with the chef or the students in the midst of all the chaos going on around us. There was not much of an attempt to keep the students quiet or to stop them from running around, either. The cafeteria was much fuller this time around, as well. Nothing regarding healthy vegetables and fruits seemed to be present, either (such as colorful posters around the cafeteria).

Conclusion

The event, overall, was a success. All of the food was distributed by the end of the final lunch period. It was apparent that the various dishes resonated well with the students and adults alike. Many students returned for second servings (and sometimes, more than that) of most of the dishes. It seemed like the fruits and vegetables in these dishes were prepared in ways that all of the participants really enjoyed. Once again, SchoolFood's Garden To Café initiative did exactly what it set out to do: it introduced fresh fruits and vegetables from local farms (and sometimes the school's own garden) to students.

Conclusion to all observed events

All three of these Garden to Café events, held at P.S. A, P.S. B, and P.S. C, were a success. Many, if not all, of the dishes were a hit with the students as well as the adults. We received comments of appreciation and support from a lot of the staff and other adults at these events, about how helpful and encouraging our project was. The students learned a lot about their own preferences for different kinds of fruits and vegetables, many of which they were surprised to find out were unexpectedly delicious. The students and adults, alike, said they were looking forward to our next event at their respective schools.