Integrating a Farm Study into a Mixed Age Classroom

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Integrating a Farm Study into a Mixed Age Classroom

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Abstract

This paper, Integrating A Farm Study Into A Mixed Age Classroom, explores the impact and benefits of integrating a farm study into a classroom. It reports on the course and the results of how students responded to the farm study over one full school year. In addition, it shows how the integrated farm study could be incorporated into the core academic topics such as reading, writing, math, social studies, and science. In fact, this paper proves how students become more motivated and engaged to learn in the core academic topics through their focus on the farm study. The class that was subject to this study was composed of seven students, in one classroom together, ranging from Kindergarten to Third grade. These students are inhabitants of the Manhattan, New York and have minimal exposure to farm life. The paper suggests that going in depth into learning about a farm and farm stands will create more conscious citizens who have more of an understanding of the world around them, motivate students into learning their core studies, and be more aware of making healthy food choices.
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Integrating a Farm Study into a Mixed Age Classroom

The main reason for integrating a farm study into School A is to help children learn more about the world around them and be conscious of the earth’s processes. It is important for children to understand that food doesn't originate in the supermarket. Rather, there is a whole system that it goes through before arriving at the supermarket for sale. When children are immersed in the planting, growing, harvesting, cleaning, and tasting of food before selling it to customers, they will acquire a deeper and more meaningful connection to the world around them.

Mission Statement

School A is the pilot classroom for a new school, School B, which opens in the Fall of 2018. The mission of the school is to support the growth in children’s minds, bodies, and souls through an integrated curriculum consisting of farming, conscious eating, social studies, and entrepreneurship.

Background of the school

School A incorporates progressive educational pedagogies, such as Montessori and Reggio Emilia, and the learning in the classroom originates from children’s passions and interests. Through exploring the depths of these passions and curiosities, teachers can identify every child’s superpower. The school makes use of the word “superpower” in order to encourage each child to bring forth their individual strengths and uniqueness into the classroom. For instance, one child’s “superpower” might be empathy, due to their strong ability to relate to others and make people feel supported. Another child’s superpower might be persistence, on account of their unrelenting drive to accomplish the goals they set for themselves. The ultimate goal of the school is to create conscious
global citizens who understand their individual gifts and have the confidence to use them for good in the world. The Farm study specifically reinforces this mission by allowing each child to develop and showcase their super powers while learning fundamental entrepreneurship skills.

School B was founded by Founder A, who is a founding partner of a business, Business A. She is committed to creating an educational community that fosters growth in children’s minds, bodies, and souls in order to help them identify their superpower. The concept of the child’s “superpower” fits into the uses of Montessori and Reggio Emilia at School A. For example, the Montessori method encourages hands on learning and collaborative play. School A’s students work together in a hands-on manner throughout every aspect of the farm study. Through teamwork, children are able to discover their areas of strength within the group, thus leading them to discover their superpowers. For instance, one child might discover their talent for math through calculating the total cost of a customer’s produce, and adding the class’ profits. Meanwhile, another student may learn that they have a natural gift for communication through experience with customer service. The Emilia Reggio approach to learning also exists in School A’s classroom through planning lessons based on children’s interests and passions as well as focusing on long term projects, such as the farm study, which connect core academic areas in and out of the classroom. Curating lesson plans based on children’s interests allows them to hone in on their skills and realize their “superpowers.” Through a combination of these methods, teachers of School A will help to identify a child’s superpower and aid in its development.
School A Farm Stand

Integrating a farm study into School A was to help and to support children in learning more about the world around them and be conscious of the earth’s processes. The farm study gave students the opportunity to learn about farming such as growing, caring and, harvesting the produce. In addition, it taught students about how to successfully run a farm stand. Through learning a farm study children came to a deeper understanding and appreciate for nature. Children aided in the process of the earth’s growing cycle, not harming it. Through this they could spread love and awareness toward the earth in many ways and continue to protect earth’s natural beauty.

School A is composed of a total of only seven students. The blended age group classroom consists of three kindergarteners, two first graders, and two third graders. This structure provides a unique and valuable experience for all students. Kindergarteners and first graders look up to their older peers as mentors. For instance, during farm stand set up, the third graders will demonstrate the proper way to organize the bins by type of produce and the quantity of each produce per bin. The Kindergarteners will use the third graders as a model to replicate what they are doing in order to complete the task on their own the next time. During the year, Kindergarteners will be learning one to one correspondence and counting objects. This is aligned with the Common Core State Standard CCSS.MATH.CONTENT.K.CC.B4.A (2018), which states, “When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object” (p.1). Third graders will also help the kindergarteners make signs stating the prices for each item, which helps the younger students with gross motor skills and the alphabet. Collaborating
with their older peers helps the kindergarteners gain the confidence they need to interact with the adults in the Business A community during farm stand pop ups. The third graders also benefit because they are able to better grasp the material through teaching the younger students and explaining the concepts aloud in a comprehensive manner. This blended age group classroom is also helpful because it mirrors real world situations in the workforce in which individuals of all ages work together toward a common goal.

The independent farm stand study was unique because it taught multiple subjects simultaneously, through hands on learning. The children of the School A learned fundamental business operations through running the farm stand, while also learning the science behind growing produce and transitioning it from farm to table. The children were tasked with setting up and breaking down the farm stand, running a cashier, operating a produce weighing station, bagging goods for the customers, providing customers with samples for tasting, and maintaining a clean, inviting workspace. Each farm stand had a designated peer in charge of organization and oversight of the entire operation, as well as a designated peer in charge of greeting customers and answering questions regarding the produce that were being sold. Through running this business, the children acquired important math and science knowledge. For example, they learned about addition and subtraction through adding the total values of a customer’s items at the register. They also learned about mass and volume through weighing the produce at the weighing stand. In addition to these subjects, children gained insight into the world around them through problem solving and interpersonal communication with their peers and the customers.
While the children took a leadership role in the farm stand, the study did require adult support and guidance. In order to launch the first farm stand, as quickly as possible, Business A’s staff members helped design and construct the majority of the physical stand. Students then spent time during their school day painting the wooden structure in school colors. There was also adult support in transporting the produce. The Farmer, picked most of the produce and placed them into plastic crates for transportation to Business A from Linden Farm. The opening of the farm stand was time sensitive due to the rapid pace of School A opening, the limited growing season of Linden farm and factoring in the time to transport the stand into Business A’s location. As a result of the time crunch, School A did not yet have the infrastructure in place for the kids to safely participate in the wood chop element of this project. However, next year’s hands on projects will incorporate woodshop and the construction element will be a larger priority. This is important because being involved in the construction process is directly aligned with Montessori principles.

The farm stand currently runs every other Tuesday inside Business A’s Headquarters. This is an office space the children have become familiar with because they have visited this site on multiple occasions. For instance, the class went to Business A to collect data for a survey they created about the produce their farm stand should sell. They also went to Business A to see and paint their farm stand. The reason for basing the farm stand out of Business A is due to the founder of School A’s connection to Business A’s company. The founder of School A is married to the founder of Business A and was an original founding partner herself. Basing the farm stand out of Business A proved to be beneficial for the children because most members of Business A are entrepreneurs.
Building and selling goods at a farm stand became similarly entrepreneurial for the children at School A. In addition, the entrepreneurial environment at Business A motivated the children to put forth the effort needed for the farm stand to succeed. Overall, this real world “business” experience combined with the experience learning about plant life cycles, food production, and observing plant and food growth at Linden farm leads to fulfillment of the school’s mission of creating well rounded, conscious global citizens.

In order to provide the children with sufficient information about farm stands, the teachers went to great lengths to prepare the class. First, the teachers wanted to get the class acquainted with a farmer’s market culture. This was done in a hands-on manner through several trips to the Greenwich Street and City Hall greenmarkets in Tribeca. According to Laura E. Berk and Adam Winsler (1995), from their book *Scaffolding Children’s Learning: Vygotsky and Early Childhood Education*, Vygotsky’s theory states that, “… people are products of their social and cultural worlds…” (p. 1). Immersing the children into the culture of farmer’s markets provided them with an in depth understanding of how a farm stand works. For example, it showed them how to properly organize the produce into the bins, how to interact with customers, and how a customer goes about purchasing a product. Additionally, children observed details such as the different costs of the produce varieties being sold, storage of produce, organization of produce, signs for produce, and different jobs that are held at a farmer’s market. There was a huge emphasis on providing the children with first hand experiences prior to the opening of their own farm stand.
Another way in which the teachers prepared the class for the farm stand study was by reading aloud the book *Nature Spies* by Shelley Rotner and Ken Kriesler and applying the principles to a hands-on activity. The purpose of this lesson was to teach the class how to look at plants with zoom-in focus. Following the read aloud, students applied their knowledge by examining plants around the classroom. As discussed in *Nature Spies*, they took a closer look at the plant parts such as the leaves, stem, roots, and how the plant was potted. This provided a segway into a follow up lesson where students examined the inside and the outside of various produce from the farm. Each student examined a plant of their choice from the farm and studied the plant’s individual life cycle. For example, one child chose a butternut squash and later found out that this plant blooms into a beautiful yellow and orange flower prior to turning into the squash itself.
Figure 3: Children examined plants in the classroom

An important component of the farm study was learning the life cycle of a plant. This portion of the study began with another trip to the farm in which the children got to select one plant to study over a month. For example, one of the students selected to study a butternut squash while another student focused on lunch box peppers. In the classroom, the children drew diagrams of their plant of choice and labeled the parts. In addition, the children brought the fruit component of their plant into the classroom to further discover what was inside the plant. The abundance of seeds inside taught the students about the growing process. The students learned that the seeds are used to be planted into the soil to start the growing process again. Through each student studying a different plant they were all able to come together and describe to each other the similarities and differences among all their plants. The children asked each other questions such as, “why does your plant have flowers on it?” These questions sparked children’s interests and they each became eager to research more on their plants in order to share their knowledge with the
group. This interactive process is what led the students to having a deeper understanding of different plants and their growing process. According to Bell Hooks (2009) from *Critical Thinking*, “The most exciting aspect of critical thinking in the classroom is that it calls for initiative from everyone, actively inviting all students to think passionately and to share ideas in a passionate, open manner” (p.11). If it were not for sharing and explorative times in the classroom these children would not have the confidence they needed to act like scientists as they explore the earth and the growing processes. They wanted to take responsibility for creating a learning community in their classroom through sharing with their peers.

![Image of children looking at plants](image)

*Figure 4: Looking at the inside of plants*

During the preparation period, students also spent a lot of time role playing their jobs at the farm stand. This was seen through children setting up the classroom to look like the farm stand using baskets, plastic produce, the scale, and the plastic play cash register. Acting out the farm stand was particularly beneficial to the kindergarten and first graders as they repetitively practiced their roles for the future farm stand, which supported them in understanding how the farm stand would function. According to Piaget
(2006), as cited by Laura Berk in *Child Development*, the kindergarteners and first graders fall into the Preoperational stage, which means they have a sense of mental representation. Being at this stage gave them the ability to plan in their minds and re-create the farm stand during dramatic play and drawings. Play and visualizing the farm stand gave them the confidence they needed to enter a new space, such as Business A and succeed at the task at hand. In addition, back at the farm the children practiced bagging the produce based on weight, organizing the produce into bins, harvesting, planting, and composting. Immersing themselves in the farming culture, as well as jobs that were unfamiliar to them provide the children with the questions and tools they needed to be confident in running a farm stand. According to Laura E. Berk and Adam Winsler (1995), from their book *Scaffolding Children’s Learning: Vygotsky and Early Childhood Education*, Vygotsky’s theory states, “Vygotsky regarded children as active agents in development, contributing to the creation of internal mental processes collaborating with others in meaningful cultural activities” (p. 23). Children spent time harvesting kale, tomatoes, an assortment of winter squash, cucumbers, peppers, and bok choy. The children also spent time tasting the produce in order to familiarize themselves with the differences, and be able to explain the taste characteristics to the costumer. The third graders spent a lot of time learning about money, place value, and cashier exchanges.

Prior to the first farm stand, children also engaged in marketing and advertising. They learned how to make t-shirts using a digital software. These shirts would serve as their uniform while they worked at the farm stand. In addition, they created signs to promote their farm stand, which taught them about promotional marketing. The class gained sense of community through posting their signs around Business A and using
word of mouth advertising to encourage Business A members to come buy the produce at the farm stand. After role playing the farmer’s market in the comfort of their own classroom, the children were eager to assume their roles at the real farm stand. According to Martin S. Dworkin (1959) from his book *Dewey On Education Selections* he states, “I believe that the only true education comes through the stimulation of the child’s powers by the demands of the social situations in which he finds himself” (p.20) Through working together to create posters and posting them throughout the office space of Business A showed the children the importance of marketing and building social skills to promote their sales. In addition, this showed them the hard work that goes into being an entrepreneur.

Given that School A consists of students at different ages and learning stages, the teachers focused on assigning each student with developmentally appropriate tasks. For instance, it is developmentally appropriate that the third graders took on the role of cashier at the farm stand. This is also differentiating according to ability. Third graders have a higher level of math than Kindergarten and first grade. The third graders have a good understanding of addition and subtraction. According to Chip Wood (2007), third graders should be provided with opportunities to, “Compute with money and begin learning about decimals” (p.115). This relates to the math Common Core State Standard CCSS.MATH.CONTENT.3.NBT.A.2 (2018), which states “Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction” (p. 1) They are also learning how to multiply and divide during their math unit of study, as well as learning about fractions
The first graders took on the jobs of weighing the produce and organizer. These two jobs are developmentally appropriate for the first graders, as Chip Wood (2007) states, as they “Like to work by themselves…” (p.92) and, “Like to repeat tasks” (p.93). The job of weighing is appropriate for the first graders because during their math unit they learned about comparing numbers and adding large quantities. In addition, according to Chip Wood (2007), first graders should be given opportunities to “Work with fractions by measuring, weighing, and comparing” (p. (95). The first graders also worked together with the teacher prior to the farm stand to create a spreadsheet that contained the price based on the weight of the produce. For example, if the butternut squash weighed a pound and a half the calculations based on weight were written down to show that it cost $2.50. According to Piaget weighing produce would be a suitable job for first graders as they pass seriation tasks at this age, which according to Laura E. Berk (2006), is “The ability to order items along a quantitative dimension, such as length or weight” (p.243). Weighing the produce became an enjoyable job for the first graders because they liked to discuss with the customers how some produce weighed more than others. Each time a costumer handed them a produce to weigh they were eager to see how much it weighed compared to the previous produce they weighed.

The first graders also created their own organizer checklist. According to Chip Wood (2007), the job of an organizer is developmentally appropriate for a six-year-old because they are, “Ready to try taking on individual and group responsibilities” (p.81). As the organizer, the child was responsible for making sure everyone was doing their job and all items for the farm stand were in their place. On the organizer’s checklist, there were pictures and words to indicate what produce was for sale and for what price. Since
not all first graders are reading at the beginning of the year, it was important to have corresponding pictures on their lists. The first graders went online to search for pictures with their teachers and the teachers also assisted with typing the words. The checklist included areas in writing and reading, which supports matching pictures and words. The checklist included notes to remind student workers to smile, place produce in the right bin, make sure signs in produce bins were neat, and only the customers could eat from the sample table. If the younger students had any questions regarding the checklist, third graders were available to lend a helping hand.
<table>
<thead>
<tr>
<th>Everyone SMILING!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everything in its place.</td>
</tr>
<tr>
<td>Signs should be next.</td>
</tr>
<tr>
<td>No running! Everyone should be doing their job.</td>
</tr>
<tr>
<td>ATTENTION</td>
</tr>
<tr>
<td>NO RUNNING</td>
</tr>
<tr>
<td>NO EATING from farm stand. ONLY customers can eat from sample table.</td>
</tr>
</tbody>
</table>

*Figure 5: The checklist the organizer used*
Figure 6: A 1st grader weighing a squash

The kindergarteners’ jobs included providing samples for customers, and greeter, which entailed welcoming the customers to the farm stand and explaining the different produce for sale. This became a more important job than the teachers anticipated because many times the customers would set out to buy produce that they were comfortable with, such as carrots and bib lettuce. However, having tasted all the produce, the kindergarteners could provide insight and recommendations that lead the customers to try new things. According to Chip Wood (2007), socially and emotionally running the sample table and being the farm stand’s greeter is a developmentally appropriate job for five year olds because he states that they, “Like to help, cooperate, follow rules… want adult approval” (p.62). During this job, the kindergarteners had simple rules to follow such as, not eating the food from the sample table and greeting the customers. Being the greeter and working at the sample table soon became an easy job for the kindergarteners because as Wood (2007) states cognitively five year olds, “Learn best through repetition…” (p. 65). Through repetitively greeting customers saying, “welcome to our
farm stand,” or “would you like to try the carrots” gave kindergarteners the confidence they needed to participate successfully in running the farm stand.

After the course of two farm stands, the children raised seven hundred seventy-five dollars. At this point, it was time to bring up what exactly the children wanted to do with the money. After researching non-profit organizations in the neighborhood, such as a local coat drive, a local animal shelter, a local soup kitchen, and a local pajama drive, the students decided to use the money to donate food and supplies to Animal Haven Shelter. The research included watching several video clips of the organizations, reading descriptions of services, and evaluating the organization's’ overall impact. After much discussion, the children decided to spend the money on Animal Haven, a local animal shelter, located on two hundred Centre Street.

Prior to visiting the shelter the students wanted to find out what kind of supplies the shelter needed most. As a class, we drafted a list of items the shelter might need for dogs and cats specifically. For example, dog/cat food, towels, beds, toys, and treats. Each student wrote a letter to Animal Haven asking the shelter for suggestions. After the letters were written, the children had the opportunity to walk to the post office and mail the letters. This was particularly exciting because it was each child’s first experience mailing a real letter. They learned how to properly address and stamp their letters. Displayed figure seven is two third grade students meeting the mailman and handing him the letters they personally wrote to Animal Haven.
Within four days, Animal Haven gave the class a lengthy list of necessary supplies. The third graders composed a large written checklist dictating all the items. Later in the week, the class took a trip to the local pet shop, called Unleashed by Petco, which is located on one-hundred fifty-seven Chambers Street. The children were eager to go shopping for the animals at the shelter. The class broke up into two small groups, splitting up the large list of supplies. The children worked together within their small groups to locate the supplies in the store. The children learned about the weight and dimensions of different items. For example, a first-grade student initially attempted to lift a large bag of dog kibble, however, she soon realized that she needed some help from a friend. She enlisted a third-grade student in the group to help her lift a large bag of dog kibble and successfully into the shopping cart. In figure eight, the two girls are using a firm stance and bending their knees to strongly grip the bag of dog food. This experience taught them about how much things might weigh in comparison to others. During this shopping experience, the children also learned how to self-advocate. For example, they realized that the largest dog beds were placed on top of a high shelf that they could not
reach, and thus, they had to ask the store employee to get a ladder to help them reach the dog bed.

Figure 8: 3rd and 1st grader trying to lift bag of dog food

Once all the items on the list were collected, the children brought them to the cash register to pay. This proved difficult for the younger children, and was a place where the third graders had to step in. Throughout their time in the store, the children had not paid much attention to the prices on the toys, dog food, and beds. Consequently, when they arrived at the cashier, they realized that the items added up to be over the amount of money they raised. Using their problem-solving skills, the third graders asked the store employee how they could bring the price down. The store employee showed the children a discounted section that had dog toys, as well as cheaper dog food. Once the children were aware of the price they then went back around the store checking prices. The children learned more than a typical shopping experience because they had to work with the amount of money they collected, sort through many items based on price, and decide what the priority items were after collecting all the items on the list. For example, the students realized that if they removed four more dog toys from the total items in the cart they could get another dog bed, which was more important because the dogs needed a spot to sleep in their kennels. The store manager, was kind enough to allow the students
to explore using the scanner to scan the price of the items they were interested in purchasing. Through these steps and actions the children are using their minds and bodies. The farm stand and helping Animal Haven, integrate math, science, social studies, and entrepreneurship skills.

Figure 9: 1st grader learning to use scanner

Tribeca Community

The community in Tribeca is full of exciting sightings for children. For example, there are various restaurants, storefront displays, parks and nature, animals, markets, fire departments, special vehicles, subways, advertisements, and more. In Tribeca, the children are constantly stimulated, and each trip outside sparks their curiosities. During a walk from the classroom to the park, children noticed a cat sunbathing in the window of a veterinarian's office. The children wanted to know the cat’s name, so on the walk home the teacher asked a woman at the front desk of the office and she told the class that the cat’s name is Marley. Children who had been to restaurants with their families or stopped in a coffee shop with their parents in the neighborhood pointed out a few familiar spots on the walk to the park. In addition, during the walk children seemed to be most excited
about the Greenwich street greenmarket. They pointed to the signs, the vegetables, the fruit, and the flowers. The Tribeca community lends itself to School A’s mission because it exposes the children to all that New York City has to offer. Children become conscious of their surroundings, and are able to see juxtaposition between the nature within the parks and by the water and the industry within the commercial buildings, metro system, and vehicle traffic. Each time they take a trip outside in Tribeca, the children are observing new elements of New York City and opening their eyes to the world. This relates to what they are learning in the classroom as they are bringing their experiences into the classroom. The children use each other as resources, as well which is beneficial to their understandings of the community.

Below is a list of sightings in the neighborhood that children notice. Many of these places in the neighborhood may be observed by children both in the context of school, and while going to and from school.

- Restaurants
- Stores
- Parks (Washington Square Park)
- Vet (Example: cat in the window)
- Bakery (Example: funny pictures of Halloween cupcakes)
- Flower shop (Example: looking at plants and exploring different plants)
- Markets
- Fire department
- Special vehicles
- Subways
Billboards/advertisement on buses
Library
Political buildings such as City Hall.

Farm Stands in NYC

Greenmarket farmer’s markets in New York City were founded in 1976 and today have expanded to over fifty greenmarkets and fifteen youth markets. The mission of opening these greenmarkets is to provide small family run farms with the opportunity to sell their products to consumers and to guarantee habitants of New York City with the freshest and most nutritious, locally grown food the region has to offer.

School A is located on Reade Street in Tribeca, just three blocks away from the Tribeca Greenmarket, which is located on Chambers Street and Greenwich Street. This greenmarket is just one aspect of the Tribeca community, however, this it plays a key role to the inhabitants. For instance, it provides the population with fresh, seasonal produce from regional farms, which is chemical free and non-genetically modified. Customers know that this enhances the nutritional value of the food their families will be consuming. While shopping, customers can ask questions directly to the farmers in order to learn more about what they are putting into their bodies, and they can even sample the various produce to experience the different tastes. A trip to the Tribeca Greenmarket is a multifaceted experience for the customer as opposed to the purely transactional nature of a trip to the supermarket.

When children visit the greenmarkets, they notice many differences between the small farm stands compared to the industrial supermarket. In order to illustrate these points of difference, the teachers of School A took the class to the nearby Whole Foods
Market. The students were given a scavenger hunt list, with the mission of finding different items in the store. The purpose of the activity was for the children to see the sheer quantity of product available for purchase at Whole Foods and to compare and contrast the Whole Foods Market with the Tribeca Greenmarket. This helped children see that food does not all just magically appear in a supermarket ready for sale, but rather there is a process it goes through to get there that starts with different types of farming.

During the scavenger hunt, children were able to draw many observations about the differences between supermarkets and greenmarkets. For example, the children noted that there is a much smaller selection of produce to choose from at the greenmarket, as the produce is mainly seasonally sourced. For example, you will not find asparagus at the greenmarket in the Winter, as it is not harvested at that time, while other vegetables such as parsnips and squash are more abundant at the greenmarkets in the winter months when they are in season. On the other hand, supermarkets such as Whole Foods have all kinds of produce available year-round because they are imported from different regions around the world. The class also got to see the uniformity of the produce at Whole Foods. All the apples were large, round, shiny and bright red. In contrast, the organic produce at the greenmarket has more variety in size, color, and shape. Some apples might be brightly colored and round while others are more muted tones and have small indents or markings. Next, children noticed that Whole Foods contains much more than just produce; it also supplies consumers with selections of meats, fish, grain, dairy, packaged foods, and non-food items.

Additionally, children who visit the farmer’s market weekly with their families may see familiar faces from shoppers and workers. For example, when I brought my
students to the greenmarket they were able to recognize the same woman selling apples. In addition, the woman selling the apples worked at the local New York State apple orchard, and therefore was a direct source the children could ask questions regarding the produce and where they come from. In comparison, employees of a Whole Foods market most likely do not have a direct relationship to the farms they source goods from. At Whole Foods, the employees did not interact with the students and were focused on doing their job of organizing shelves and ringing up the items at the checkout counter. Overall, the greenmarkets create more of a sense of a close-knit community.

It is important for children to observe both types of markets so they become more conscious consumers and citizens. Through these comparisons children become more aware that food doesn't just magically appear for sale in a supermarket. In fact, there are many important steps that occur prior to the food arriving on the shelves. Through communicating with farmers, children learn about the origins of different produce. They learn that the produce comes from the earth and is grown in different areas during different times of the year by individual farmers who plant, tend to, harvest, sort and clean the produce as their means of living before transporting it for sale in supermarkets or greenmarkets. Not all farms are created equal, as factory farms tend to use fertilizer and pesticides in the growing process, while small scale family farms go the organic route. It is vital for them to know that there is not an endless supply of fresh food and that not all produce is alike.
Challenges of a Startup School

Being part of School A’s pilot classroom for School B in the Fall of 2018 came with many challenges. As a new school, there were many opportunities for trial and error, but with keeping up with the curriculum and necessary material to cover a few key items became lost throughout the year that should be focused on more in the future. For example, the farm completely closed in the winter and the school’s farmer left for the winter month to peruse farming abroad. The farm closing became challenging to the study as students had to leave the route of going on weekly trips to the farm behind them. The weekly trips were explorative and engaging for the children. Another challenge that arose, was not all teachers were present at the school. Moving forward all teachers should be more committed to staying on the same page and staying for a full school day. Lastly, there are two moving parts the pilot classroom, School A, and then building School B itself. This became challenging as I was trying to apply what the school needed and if it did not work it got shut down rather than addressed and modified. There was no clear team to support the day to day actions of the classroom, therefore, as the head teacher I had to handle difficulties on my own.

Conclusions and Future Study

The farm study provided the children with insight into the world around them. They became more aware and conscious of caring for live plants, and where their food comes from. Moving forward it would be beneficial for students to learn about the process farms undergo as they close for the winter and how some farmers grow produce indoors. In my future classroom, I believe it would be beneficial to grow plants indoors and have a greenhouse on site at the farm to visit weekly. I would like to study how
students respond to these indoor activities related to growing plants and how they compare these activities to other farming activities. I would also like to see children be more involved in the physical construction element of the farm stand to learn what goes into building a structure from the ground up. Overall, this study was a successful first farm study. It was meaningful because it showed children that food grows outside of New York City and that academic concepts can be learned through real life experience.
Bibliography


Hooks, Bell (2009), *Critical Thinking*
