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Examining Partnerships in a Farm to School Program

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ABSTRACT

This qualitative study examined one school and school system's Farm to School program in an urban environment. The purpose of this study was to explore the partnerships of an established Farm to School program so that we can better understand the mechanisms that support the work and how to improve upon them. In this case study, eight participants were interviewed, and the data were analyzed for emergent themes related to Farm to School program partnerships and participation. As themes emerged, the results answered the two research questions. In the first research question, "Who are the partners in this Farm to School program?" three major themes addressing this question emerged from the interviews conducted. These themes were school-based partners, community and nonprofit partners, and business partners. All three types of actors that emerged play specific roles that maintain the flow of the school system and Smith Elementary's Farm to School program. In regards to the second research question on which this study focused, "How do these partners view their collaboration and experiences with each other as partners within this Farm to School program?", three additional themes emerged. The partners viewed their collaboration and experiences valuing each other and the benefits of the Farm to School program, focusing on social justice and knowledge of how their efforts bettered the community, and by focusing on capacity building as they were looking to improve and sustain Farm to School and the students' future. Theories of social exchange and socioeconomic embeddedness reinforce Farm to School program success and collaboration. Recommendations include education, staffing, communication, using available resources, and building upon a feasible Farm to School program using the strengths and resources of program partners.

CHAPTER ONE: INTRODUCTION

Background

In the last decade, there has been an increased focus providing fresh, healthy food to students (Izumi, Wright, & Hamm, 2010b). This issue has merged in the national spotlight due to the rise of preventable disease (e.g. childhood obesity) (Berlin, Norris, Kolodinsky, & Nelson, 2013; Centers for Disease Control and Prevention, 2012; National Collaborative on Childhood Obesity Research, 2012; Yoder & Schoeller, 2014), the decrease in food access (Dimitri, Oberholtzer, & Nischan, 2013; Morgan & Sonnino, 2010), and the increased focus on supporting local farmers and businesses (Brain, 2012; Holben, 2010; Martinez, 2010). Educational institutions have not been immune to this focus. Providing access to fresh food at the school is a key component of many nutrition education programs (Briggs, 2007; Collins, 2012; Martinez, 2010; Ratcliffe, 2012; Ratcliffe et al., 2011). Area farmers can be those food sources for schools, providing fresh and more healthy food to students while keeping dollars in the local economy (Brain, 2012; Conner, Abate, Liquori, Hamm, & Peterson, 2010; Martinez, 2010).

This is a key endeavor in “Farm to School” programs. In a majority of schools, these Farm to School programs motivate shifts in school cafeteria menus from frozen, processed foods to incorporating more fresh food. Farm to School initiatives have become popular among educational institutions, with national support of these programs existing in private and public sectors (Benson, 2013; Carman, 2013). According to the National Farm to School Network, Farm to School programs can include a variety of components, including school gardens, health and nutrition information and education, providing healthy meals to students to improve student nutrition, agriculture education opportunities, and support of local and regional farmers (National Farm to School Network, 2012).

With several potential components, there can also be many different participants and stakeholders in a Farm to School context (Conner et al., 2011). These connections can be found both within the school as well as among school systems, within the community, and with providers of food. According to Morgan and Sonnino (2010), “[l]ocally focused initiatives like FTS programmes can be fragile creations if they are not part of, and energized by, a supportive national network” (p. 37).

Problem

The problem is that we do not know much about sustained Farm to School programs; in other words, the longevity and success of these programs has not yet been examined. While these programs have many social, educational, and nutritional benefits, some programs suffer defeat while others thrive (Benson, 2014; Berlin, Norris, Kolodinsky, & Nelson, 2013; Izumi, Wright, & Hamm, 2010b; Vo & Holcomb, 2011). What makes the difference between successful and failed programs? Some characteristics that tend to correlate with successful programs include a larger food budget, the use of local instead of regional food suppliers, and open-campus school lunch policies (Izumi, Wright, & Hamm, 2010b; Vo & Holcomb, 2011). However, each program is different and these studies are few. With federal, state, and local resources dedicated to these programs, we need to know more about them. Most research has examined the potential benefits to Farm to School programs and why participation is low or high (Benson, 2013; 2014). This study seeks to examine an established Farm to School program, particularly the partnerships forged among the school and farming professionals who comprise the programming. I take a qualitative, phenomenological approach to shed some light on the Farm to School efforts in a local school in Virginia to better understand the partnerships of successful Farm to School programs.

Purpose and Objectives

The purpose of this study was to explore the partnerships of an established Farm to School program so that we can better understand the mechanisms that support the work and how to improve upon them. First, I identified those partners in a Farm to School program at an elementary school in an urban city in Virginia. Farm to School programs require multiple partners to operate effectively, but little information exists that explores the foundations of those relationships and the extent to which they collaborate (Conner et al., 2011). Therefore and second, I was able to explore these partnerships seeking to understand the nature of their collaborative efforts by interviewing actors in the elementary school's Farm to School program.

Overall, the project objectives for this study include the following:

1. Identify the partnerships of a Farm to School program.
2. Understand how these partners contribute to this Farm to School program.

Research Questions

There were two overarching research questions this study sought to answer. First, who are the partners in this Farm to School program? Second, how do they view their collaboration and experiences with each other as partners within this Farm to School program? In order to establish and understand the purpose of this study, the following section establishes definitions for the terms used in this project.

Significance of the Study: Implications and Applications

The importance of this study is that it could help struggling or developing Farm to School programs better collaborate within and across partnerships to meet program aims. If this study

increases the understanding of how partners collaborate within functioning Farm to School programs, then developing and struggling programs and their partners can benefit from this knowledge. Moreover, already-successful programs can also benefit. Each partner might learn more about the other partners' positions, goals, and perspectives and work better with those partners. Thus, this study has aimed to provide evidence-based "best partnership practices" to create and establish successful Farm to School programs, but this study also explored those relationships more deeply from each partner's perspective. Most research on Farm to School program participation and success is quantitative (Conner et al., 2012; Joshi, Azuma, & Feenstra, 2009; Feenstra & Ohmart, 2012; Izumi, Alaimo, & Hamm, 2010). This study did not focus on what makes a program successful or what influences program participation. Instead it examined what partners experience in their own Farm to School program, and how they contribute (or even perhaps how they need contributions) to the program

This study examined a Farm to School program's partnerships and the extent to which these partners collaborate with each other. The social exchange that exists among these different groups could explain the partnerships involved, and why these actors continue to work with Farm to School initiatives. Studies on Farm to School programs have found that support from a wide variety of stakeholders and participants tends to increase the success of Farm to School initiatives (Conner et al., 2011; Hazzard et al., 2011; Hermann et al., 2006; Feenstra, 2000; Feenstra & Ohmart, 2012; Izumi et al., 2010b; Vo & Holcomb, 2011). If Farm to School initiatives are more successful with a wider support base, and if Farm to School initiatives have a positive impact on farmers, the schools, the students, and the community, then what about that support and those partnerships makes it successful? To what extent does the program become

more or less successful with the type of involvement from these partners? In order to learn more, we need to learn from these partners and understand their relationships.

Embeddedness has also emerged as a theoretical concept in studies on alternative agrifood networks such as Farm to School collaboration (Granovetter, 1985; Ingwers, 2014; Izumi, Wright, & Hamm, 2010a; 2010b; Thornburg, 2013). Karl Polanyi described embeddedness as an idea that the economy is not driven by itself; instead, the political, social, and religious contexts greatly influence the economy (Polanyi, 1944). This means that success and even participation in Farm to School programs may be more likely if personal connections to each other exist.

Definition of Terms

First, **Farm to School Programs** are school efforts to inform students about their food, including food and nutrition education, fresh food choices in the school cafeteria, school gardens, and field experiences. In this study, I focused on a school and school system that uses local products, services, and people to fulfill their interpretation of a Farm to School program. This entailed exploring the collaboration of schools and businesses who are working together to provide more healthy food choices.

Successful programs are Farm to School programs that have developed and established their partnerships. A successful program has habits and routines, and the partners can depend on each other to do what they have arranged. **Partnerships** are relationships that develop within a Farm to School program. At first glance, these partners are food providers (farmers and distributors) and school purchasers of food. However, partnerships can also include students who consume the food and/or learn from the program, teachers who work in a school garden and

incorporate Farm to School components in their teacher curriculum, school food service professionals, school nutritionists, parents, and even the community. There also may be stakeholders who support and/or benefit from Farm to School programs. In the next chapter, I more deeply examine the literature around Farm to School programs and the collaborative relationships these programs motivate.

CHAPTER TWO: REVIEW OF THE LITERATURE

The purpose of this study was to explore the partnerships of one Farm to School program by understanding the networking and collaboration that takes place in a Farm to School program from those partners' perspectives. Farm to School programs require multiple partners to operate effectively, but little information exists that explores the foundations of those relationships and the extent to which they collaborate (Conner et al., 2011). In addition, these collaborations could be essential to the longevity and sustainability of the programs. In what follows, the literature that is put forth captures a number of empirical and programmatic arguments surrounding Farm to School, food security, and social network development. Together, they provide the backdrop to this study and the current understanding of Farm to School program possibilities.

Farm to School programs have an increasing national presence, being found in more than 40% of schools in the United States (Carman, 2013). In this state, Farm to School programs exist in 50 of Virginia's public school districts, six private schools, two private universities, and one public university, which are served by 35 farms in the state (VDACS, 2014). The Virginia Farm to Schools program is supported by the Virginia Department of Agriculture and Consumer Services (VDACS) and is a part of the larger National Farm to School Network.

In the last decade, there has been an increased, national and local focus to provide fresh, healthy food to students (Izumi, Wright, & Hamm, 2010b). This issue has emerged in the national spotlight due to the rise of preventable disease (e.g. childhood obesity and diabetes) (Berlin, Norris, Kolodinsky, & Nelson, 2013; Centers for Disease Control and Prevention, 2012; National Collaborative on Childhood Obesity Research, 2012; Yoder & Schoeller, 2014), the decrease in food access (Bilecki, 2012; Dimitri, Oberholtzer, & Nischan, 2013; Morgan &

Sonnino, 2010), and the increased focus on supporting local farmers and businesses (Brain, 2012; Holben, 2010; Martinez, 2010).

Educational institutions have not been immune to these issues with the recent final rule from the Food and Nutrition Service (FNS) and United States Department of Agriculture (USDA) requiring healthier options for students (Nutrition Standards in the National School Lunch and School Breakfast Programs, 2012). Providing access to fresh food at the school is a key component of many nutrition education programs (Briggs, 2007; Collins, 2012; Martinez, 2010; Ratcliffe, 2012; Ratcliffe et al., 2011), and low-income students are not excluded in healthy food options (Nutrition Standards in the National School Lunch and School Breakfast Programs, 2012).

Area farmers can be those food sources for schools, providing fresh and more healthy food to students while keeping dollars in the local economy (Brain, 2012; Martinez, 2010). This is a key endeavor in “Farm to School” programs. In a majority of schools with these programs, Farm to School motivates shifts in school cafeteria menus from frozen, processed foods to incorporating more fresh food. Farm to School initiatives have become popular among educational institutions, with national support existing in both private and public sectors (Benson, 2013; Carman, 2013). According to the National Farm to School Network, Farm to School programs can include a variety of components, including school gardens, health and nutrition information and education, providing healthy meals to students to improve student nutrition, agriculture education opportunities, and support of local and regional farmers (National Farm to School Network, 2012).

With several potential components, there can also be many different participants and stakeholders in a Farm to School context (Conner et al., 2011). These connections can be found

both within the school as well as among school systems, within the community, and with providers of food. It seems that people make these programs work, so the success of the program hinges on connections and partnerships: “Locally focused initiatives like FTS programmes can be fragile creations if they are not part of, and energized by, a supportive national network” (Morgan & Sonnino, 2010, p. 37).

We see, hear, and read that some Farm to School programs are successful or more successful than others overall. While these programs have many social, educational, and nutritional benefits, some programs suffer defeat while others thrive (Benson, 2014; Berlin, Norris, Kolodinsky, & Nelson, 2013; Izumi, Wright, & Hamm, 2010b; Vo & Holcomb, 2011). Perhaps some programs have certain strengths and weaknesses that might or might not be common across all Farm to School efforts. The reason could lie in the relationships among the partners that make up the Farm to School program. The problem is that we do not know much about sustained Farm to School programs; in other words, the longevity and success of these programs, as it relates to the input from those who grow, package, distribute, prepare, and serve the food, occupies little space in the current literature.

Strong partnerships are the foundation for a strong program; each person depends on the other. With federal, state, and local resources dedicated to these programs, we need to know more about them. Most research has examined the potential benefits to Farm to School programs and why participation is low or high (Benson, 2013; 2014). Some characteristics that tend to correlate with successful programs include a larger food budget, the use of local instead of regional food suppliers, and open-campus school lunch policies (Izumi, Wright, & Hamm, 2010b; Vo & Holcomb, 2011). However, each program is different and these studies are few.

Purpose of Farm to School Programs

Farm to School programs' primary goal is food provision and education, which is providing nutritional information and fresh food for schools. This is important because providing fresh food to schools aims to: 1) better the students' health through improved food choices (Bagdonis, Hinrichs, & Schafft, 2009; Briggs, 2007; Feenstra & Ohmart, 2012; Joshi, Azuma, & Feenstra, 2008), (2) teach students about where their food comes from and how produce can be used (Ratcliffe, Merrigan, Rogers, & Goldberg, 2011), and 3) support the local community (Feenstra & Ohmart, 2012; Ingwers, 2014; Izumi, Wright, & Hamm, 2010a; Izumi, Wright, & Hamm, 2010b). Additional (but perhaps more indirect) community benefits include the preservation of farmland, environmental sustainability, and a boost in local economies and job placements (Feenstra & Ohmart, 2012; Ingwers, 2014; Izumi, Wright, & Hamm, 2010b).

Farm to School is an initiative supported by the United States Department of Agriculture (USDA) through the Food and Nutrition Service (FNS) agency. However, the USDA was not the beginning of Farm to School programs. After the National School Lunch Act passed in 1994, grassroots efforts brought local food to schools. A parent and a food service director started a Farm to School program in the Santa Monica-Malibu School District, and a Northern California school superintendent desired a garden at every school (Feenstra & Ohmart, 2012). Similar programs emerged in Florida and Connecticut around the same time (Azuma & Fisher, 2001; Feenstra & Ohmart, 2012). The USDA's National Commission on Small Farms (1998) described school lunches as a way in which farms could deliver more healthy food to student populations.

Early research on Farm to School programs indicated that establishing collaborating partnerships was crucial to program success (Azuma & Fisher, 2001; Morgan & Sonnino, 2010; Vallianatos, Gottlieb, & Haase, 2004). Authors described networks and collaboration as

grassroots efforts originating from parents, food service directors, local food awareness societies, and farmers. These findings continue in recent research on Farm to School programs (Benson, 2013; Berlin et al., 2013; Thornburg, 2013); collaboration is still seen as a key function that increases the likelihood of program success. But what are indicators of success? Do Farm to School programs accomplish what they intend to accomplish?

The literature indicates that there are several areas that Farm to School programs address. First, schools need to provide meals to their students, and local farmers can meet this need (USDA National Commission on Small Farms, 1998; USDA, 2013). Next, the farmers need to distribute their crops. Moreover, local deliveries mean that farmers may not have to travel far to distribute their produce. The produce will be used quickly as well, because there is a large community of consumers in schools. The results from this are problematic, though, as conflicting results in different studies might indicate that farmer participation is more connected to “embeddedness” and social responsibility than their need for conducting business (Izumi et al., 2010b; Stickel & Deller, 2014; Thornburg, 2013). In their food distribution efforts, farmers can also support the community, perhaps being able to provide food at local farmers markets or even a community-supported agriculture (or CSA) program. Schools can be a location for those transactions to take place, perhaps on weekends or even through their children attending those schools. Another issue that Farm to School programs address is connected to the local economy. Many communities have experienced high unemployment rates, and farming can create more jobs and local businesses. Farmers who can sustain or even increase their crop production can provide more jobs and support for the community (Bagdonis et al., 2009; Feenstra & Ohmart, 2009).

Farm to School programs can also address student issues. Students need healthy school food options, with obesity and diabetes as a part of many school-age students' lives (Berlin, Norris, Kolodinsky, & Nelson, 2013; Centers for Disease Control and Prevention, 2012; National Collaborative on Childhood Obesity Research, 2012; Yoder & Schoeller, 2014). Childhood obesity has tripled since the 1980s (NCCOR, 2012), and some studies have indicated that healthier students are better students (Ratcliffe, 2012; Rooney & Ayres, 2012). Furthermore, healthier choices in schools and providing education about food choices tends to indicate healthier choices made outside of the school environment (Feenstra & Ohmart, 2012; Gibbs et al., 2013; Joshi, Azuma, & Feenstra, 2008; Libman, 2007). Not only can students perform better if they are healthier, but students learn well when they have hands-on activities (Dewey, 1916), which Farm to School programs can easily integrate this learning into their curricula (USDA, 2013). Through Farm to School, the FNS advocates "Hands-on learning activities such as school gardening, farm visits, and culinary classes and the integration of food-related education" into the classroom curriculum (USDA, 2013, p. 1).

Farm to School programs' primary goal is to get fresh food into schools while supporting local agriculture. Learning about food, food choices, and food sources is important as schools aims to 1) better the students' health, 2) teach students about where their food comes from and how produce can be used (FNS, 2013), and 3) support the local community. Additional (but perhaps more indirect) community benefits may also include the preservation of farmland, environmental sustainability, and a boost in local economies and job placements (Feenstra & Ohmart, 2012; Izumi, Wright, & Hamm, 2010).

Barriers can inhibit the growth or success of Farm to School programs, which can hinder those benefits. For example, food service directors state that there are five different barriers to

incorporating Farm to School programs: 1) it is difficult to work seasonal products into menus, 2) it is difficult to fit fresh food into the budget, 3) there are too many other initiatives to focus on, 4) they are concerned about product quality, and 5) it takes too much time to handle fresh produce. By studying partnerships in a successful Farm to School program, it is possible that program actors have discovered a way to avoid or overcome barriers such as these.

Identifying Partnerships in Farm to School Programs

Before exploring these partnerships in depth, I must first identify the partners. In previous studies, the major partners working together in a Farm to School program included the following: 1) **farmers** (Feenstra & Ohmart, 2012; Izumi, Wright, & Hamm, 2010a; Pinard et al., 2013), 2) **school food service workers and directors** (Izumi, Rostant, Moss, & Hamm, 2006; Pinard et al., 2013), 3) **school nutritionists** (Feenstra & Ohmart, 2012; Joshi et al., 2008; Pinard et al., 2013; Vallianatos et al., 2004), and (more involuntarily) 4) **students**. Additional partners may exist if 5) **teachers** also work with farmers to incorporate aspects of the Farm to School program in their curricula (Izumi, Wright, & Hamm, 2010a; Joshi et al., 2008; Vallianatos et al., 2004), 6) farm owners do not work the land, instead they have **employees who work the land**, 7) if farms use **third-party food distributors** to deliver their produce (Izumi, Wright, & Hamm, 2010a, 2010b; Markley, Kalb, & Gustafson, 2010; Vo & Holcomb, 2011). Distributors not only deliver food, but they could also actually find farms and make sure that the school orders are filled. Other potential partners include: 8) **parents**, if parental involvement is required or allowed, 9) **local food associations and cooperatives** (Joshi et al., 2008; Vallianatos et al., 2004), 10) **extension agents** (Benson, 2014), and 11) other **community members**. The literature only briefly identifies partnerships in Farm to School programs, but there are gaps in

understanding the extent to which they work or do not work together, the frequency of their collaboration, and the ways in which they collaborate.

Ratcliffe (2012) developed a logic model for evaluations of Farm to School programs. I used this logic model as my project developed and as I worked with SPS to provide a participant list. Additionally, this model helped me understand the networking and collaborative partnerships that I encounter and study in my project. According to Ratcliffe's Farm to School program evaluation logic model, there are several stakeholders, clients, participants, and/or partners in a Farm to School, even more than mentioned in other articles. Adults in the community who volunteer, communications support, and consumers of local news and media can become partners and even stakeholders. Some external partners are missing the farmers, potentially owners of farms, potentially crop distributors (Izumi, Alaimo, & Hamm, 2010), school food service directors and/or nutritionists (Izumi, Alaimo, & Hamm, 2010), which could be a gap in the literature. At the same time, this model identifies other partners or staff that is rarely, if at all, mentioned in the literature. These include communications support staff and program promoters who market and/or provide information to the community, teachers, students, food service professionals, and others who come into contact or are affected by Farm to School efforts.

Benson (2013) identified other partnerships in his study of agriculture extension and Farm to School programs. At the dawn of Farm to School programs, food service professionals were incredibly influential in starting Farm to School programs, wanting to provide "good food" to their students by finding distributors and manufacturers who could help them achieve this purpose (see also Feenstra & Ohmart, 2012). Furthermore, food service professionals indicate that students like being served local food, that they are satisfied with the price, and that they like

being able to help their local farmers (Feenstra & Ohmart, 2012; Izumi, Alaimo, & Hamm, 2010). Food service professionals thus seem to be willing to forge partnerships to encourage their students are eating healthy (Feenstra & Ohmart, 2012).

Farmers not only provide food to the students, but they also host farm visits (Feenstra & Ohmart, 2012) so students can see from where their food comes and so students know more about agriculture. It is possible that Farm to School programs will succeed at a higher rate if local distributors, not large commercial distributors, provide food to schools (Izumi, Alaimo, & Hamm, 2008; Vo & Holcomb, 2011). Farmers might make deliveries on their own, or they might contract with food distributors to bring their crops and products to the school. These food distributors can work better with local and regional producers rather than dealing with mass producers (Feenstra & Ohmart, 2012). There are various ways in which community members can partner in Farm to School programs: 1) taking care of school gardens when school is not in session, 2) supporting local farmers who provide foods to schools, and 3) allowing farmers on community property. Parents can also become involved in Farm to School programs, as they could pack or not pack their student's lunches, they could volunteer in schools, sign participation waivers, and spread information about local farms. Teachers become partners, as they also may eat in the school cafeteria, use Farm to School program components to teach their students, encourage and motivate Farm to School participation, and even work in school gardens.

Students may be more involuntarily involved in Farm to School programs, but they are the ultimate consumers and participants in the program. They receive health and nutrition benefits (Bagdonis, Hinrichs, & Schafft, 2009; Berlin, Norris, Kolodinsky, & Nelson, 2013; Briggs, 2007; Feenstra & Ohmart, 2012; Joshi, Azuma, & Feenstra, 2008; Yoder & Schoeller, 2014),

they may become better learners (Ratcliffe, 2012; Rooney & Ayres, 2012), and they also may make better food choices (Izumi, Wright, & Hamm, 2010b).

People are not the only components of Farm to School programs. Policies and agencies can contribute to the outcome of a Farm to School program. Farm to School programs can be closely tied with other programs as well as state, local, and federal initiatives, for example, the National School Lunch Program (Azuma & Fisher, 2001; Conner, King, Koliba, Kolodinsky, & Trubek, 2011). More examples of these actors are in the figure below.

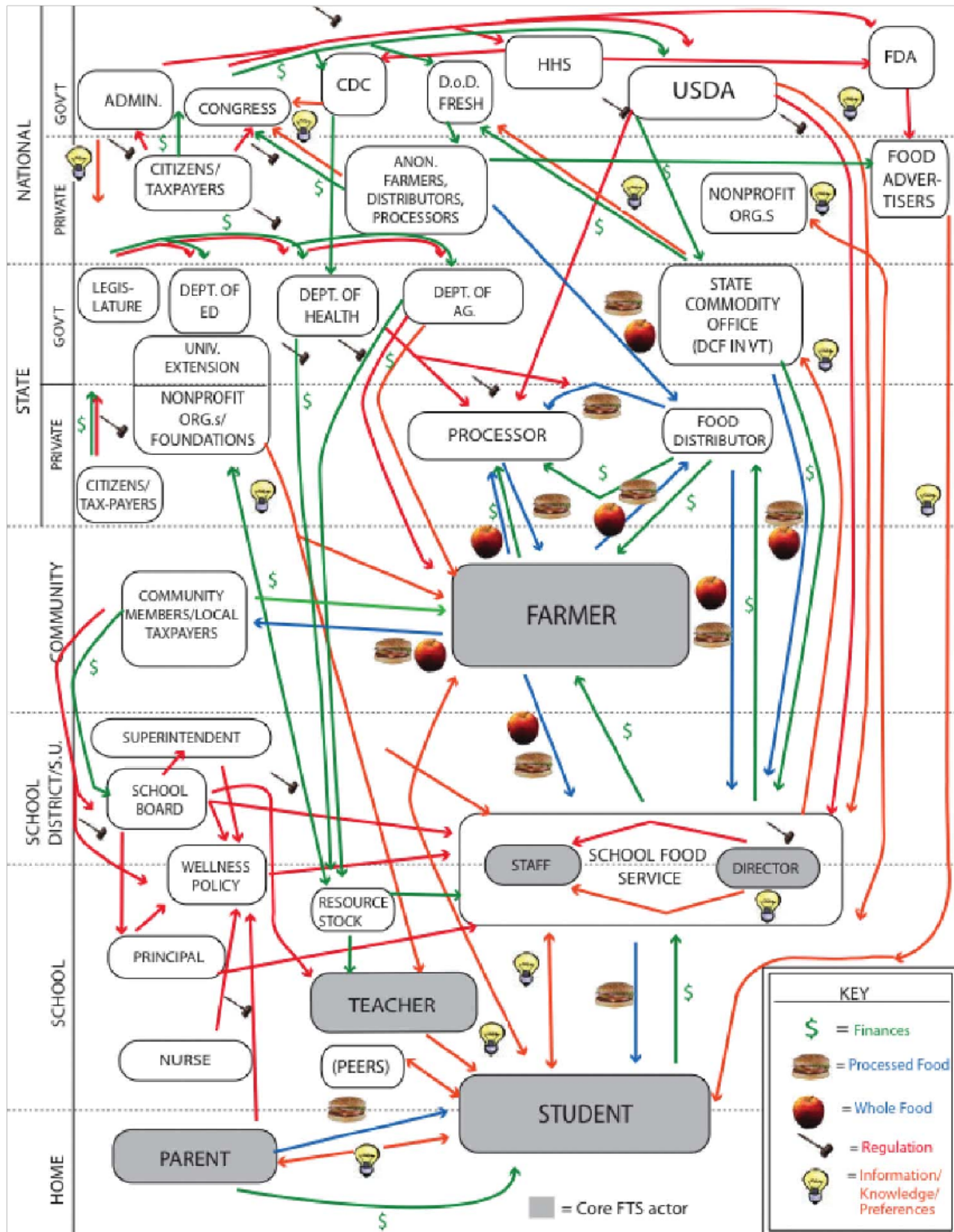


Figure 1. Map of Farm to School Actors (Conner et al., 2011, p. 142). Permission by author in Appendix A.

From examining the Figure, one can see that there are many actors in a Farm to School program, and many components to those pieces that can influence the program's success. Moreover, the programs' context, funding, resources, and personnel also vary. It is possible that most of the above map may or may not apply to all Farm to School programs or even the ones I examine in my future study. Moreover, it is possible that this information could be shared with Farm to School program partners initially, where they could generate their own ideas about how to form relationships or partnerships that could better their participation and/or experience.

The collaboration among partners, organizations, and policies that develop and sustain Farm to School programs needs more research (Benson, 2013). While this map identifies the involved programs, players, institutions, and organizations, it does not explain the degree of collaboration and communication among them. Identifying the partners in the Farm to School program of this study is important to understand the school's context. Knowing how and why they wanted to begin to participate in such a program can also provide more information about the nature of their relationships.

Theories of Participation

Two major theories have emerged from previous research on Farm to School programs and program participation. First, with multiple partnerships giving back to each other, social exchange theory (Blau, 1964; Emerson, 1976) may be key. The concept behind this theory is that social interactions and behaviors build upon give and take, and that each action seeks reciprocation (Blau, 1964). Social exchange in Farm to School partnerships could indicate that the partners depend upon and work with each other because they have or they will receive something in return (Harrison, 2013; Ingwers, 2014; Richardson, 2013). In this instance, schools support farmers, providing them a way to sell their crops. Farmers support schools by giving

them a source for school lunches and perhaps advertising for their farm at local markets. Schools support their students by providing them healthy options; consequently, with better nutrition, students may earn better grades, which could reflect a better school and school system (Rooney & Ayres, 2012). This also supports the community, teachers, parents, and the goal of food service professionals to provide healthy meals to students.

Second, the characteristic of embeddedness seems related to social exchange, and it has been used in understanding Farm to School programs in recent articles (Izumi, 2008; Izumi, Alaimo, & Hamm, 2010b; Thornburg, 2013). Karl Polanyi described embeddedness as an idea that the economy is not driven by itself; instead, the political, social, and religious contexts greatly influence the market and consumer choices as well (Polanyi, 1944). For example, organic labels or companies advertising certain religious standards or affiliations have a comparative advantage over consumers seeking these products. While embeddedness originally was an economic concept (Polanyi, 1944), it has now emerged as a theoretical concept in studies on alternative agrifood networks like farmer's markets and community supported agriculture (Hinrichs, 2000; Kirwan, 2004; Winter, 2003). Moreover, these reasons can provide a comparative advantage over other competitors, as some people will pay more to support people they know or standards that they trust (Izumi, 2008; Kirwan, 2004).

Embeddedness has been a core concept in understanding Farm to School collaboration as well (Granovetter, 1985; Ingwers, 2014; Izumi, Wright, & Hamm, 2010a; 2010b; Thornburg, 2013). It is possible that, in this Farm to School program, participation is not because of direct great financial gain. In other words, those who participate in Farm to School programs are there because of a social, political, or moral or ethical or religious reason.

Conclusion of Literature Review

Studies on Farm to School programs have found that support from a wide variety of stakeholders and participants tends to increase the success of Farm to School initiatives (Conner et al., 2011; Hazzard et al., 2011; Hermann et al., 2006; Feenstra, 2000; Feenstra & Ohmart, 2012; Izumi et al., 2010b; Vo & Holcomb, 2011). If Farm to School initiatives are more successful with a wider support base, and if Farm to School initiatives have a positive impact on farmers, the schools, the students, and the community, then what about that support and those partnerships makes it successful? To what extent does the program become more or less successful with the type of involvement from these partners? The social exchange that exists among these different groups could explain program success, while embeddedness might further explain participation if partners gain little from their program efforts.

However, in order to learn more, we need to learn from these partners and understand their relationships. This could help struggling or developing Farm to School programs by providing them with more specific information about how to collaborate within and across partnerships to meet program aims. At the same time, already-successful programs can also benefit. Each partner might learn more about the other partners' positions, goals, and perspectives and work better with those partners. This study explored evidence-based "best partnership practices" to create and establish successful Farm to School programs.

While the previous literature identifies the involved programs, players, institutions, and organizations, it explains neither the context nor the degree of collaboration and communication among Farm to School program actors. This is a gap this research aims to address. The following section therefore illustrates the research design and methodology used.

CHAPTER THREE: METHODOLOGY

Research Design

This study focused on the partnerships and collaboration within those partnership entities in a Farm to School program. Qualitative methods were used to collect data, specifically taking a phenomenological approach to uncover the perceptions of these partners and collaborators in a Farm to School program. Their perceptions informed my understanding of Farm to School program collaboration from multiple perspectives that have not been examined together in the literature. Some research has already indicated reasons for Farm to School participation, the reasons that Farm to School programs are initiated, and what benefits are possible (Bagdonis et al., 2009; Benson, 2013, 2014; Conner et al., 2012; Feenstra & Ohmart, 2012; Izumi et al., 2010b; Joshi et al., 2009; Stickel & Deller, 2014; Thornburg, 2013). However, the partnerships that contribute to these programs' success need further study to help other programs become successful as well. This approach is the study of that phenomenon, focusing "on descriptions of what people experience and how it is that they experience what they experience" (Patton, 2002, pg. 107). I want to understand the partnerships in a Farm to School program and how those relationships contribute to the functions of a Farm to School program. What are the collaborators' experiences and how have they brought that experience together to make this Farm to School program work in this setting?

Case Study Design

In this study, I examined one school's Farm to School program, taking the case study approach. A case study examines one unit or system in depth (Patton, 2002), seeking to understand that population within the framework. Case studies are common qualitative approaches in a singular school or school system setting (Baxter & Jack, 2008; Stake, 1995; Yin,

2009, 2012, 2013). Most of the Farm to School research has incorporated quantitative methodology, though qualitative research does exist (Harmon, 2004; Izumi et al., 2010), as well as mixed methods approaches (Benson, 2013, 2014). Employing case study methods indicates the examination of only one case, while researchers can uncover in-depth information from the context in efforts to understanding the web of actors within that context (Patton, 2002; Stake, 1995; Yin, 2009). A case study design allows for a variety of data sources (Baxter & Jack, 2008), while answering the questions how and why (Yin, 2003). Furthermore, this approach is appropriate for this study because I did not manipulate variables of the context I am studying (Patton, 2002; Yin, 2003). Furthermore, I see that the partnerships increase the success of the programs, but understanding that context is key to understanding why and how Farm to School programs are successful (Baxter & Jack, 2008; Patton 2002; Yin, 2003).

Sample Selection

A qualitative study focuses on depth of data and information, and it was my intention to explore these programs in depth. The results of this study should represent the experiences of the individuals within this particular school or system in a Farm to School program. I employed purposeful sampling in my school selection, as I wanted to examine a successful Farm to School program.

There is a list of Farm to School program participants in Virginia, and I used this list to contact schools to learn more about their Farm to School initiatives and the extent to which they would be willing to work with me and allow research on their Farm to School programs. The National Farm to School network's website list of Farm to School programs (VDACS, 2014). I also called many different school districts in the surrounding area. An urban school system, which we will identify as Sugarland City Public Schools for the purpose of this study, seemed

the most eager and accepting of this study, because they received a USDA Farm to School grant and need to collect data for their program evaluation. The Research and Evaluation coordinator and the Director of School Nutrition Services scheduled a meeting in late December before the holiday break. They are onboard and have already chosen a successful school, but also one that the school system feels needs recognition for their Farm to School program.

For the purpose of this study and to address anonymity of participants, this school will be referred to as “Smith Elementary” and the schools system will be named “Sugarland Public Schools”. Smith Elementary is an urban school located in Virginia. Of their 600 students, over three-quarters of them is African American, and another one-fifth of them is Hispanic, and the remaining students are white or other. According to state accreditation reports, Smith Elementary is a school in academic peril. It is a Title I priority school with the state accreditation status of “accredited with warning”. The principal was removed during the school year with an interim taking his place immediately (Reid, 2014).

Nevertheless, the community continues to invest in the school and its work. Smith Elementary has established multiple garden plots and a hoop greenhouse as part of community efforts (Renew Sugarland, 2014). Renew Sugarland and Shalom Farms, local urban farms, work with students and teachers to provide hands-on experience and education about nutrition and supporting local agriculture.

Smith Elementary is in the middle of what some refer to as a food desert (e.g., low income and low access within 1-10 miles, according to the USDA food access map). Much of the work by the community and local farms has been elevated in response to a recent task force that identified Sugarland as a city with a high rate of food insecurity (Sugarland Food Policy Task Force, 2013). According to this task force’s report, food security is access to and availability of

nutritious food. Hamm and Bellows (2003) defined food security as “a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice” (p. 37). Coleman-Jensen, Gregory, and Singh defined food security as “access by all people at all times to enough food for an active, healthy life” (2014, p. 2). In other words, residents within the 1-10 mile area around Smith Elementary do not have consistent access to nutritious food. The school system (Sugarland Public Schools) now provides healthy meals to their students at no cost.

Data Collection

To align with the phenomenological approach to understand the nature of the partners’ work and their perspectives on Farm to School collaboration, I conducted eight structured, in-depth interviews (Creswell, 1998; Patton, 2002), each lasting anywhere from 30 minutes up to two hours. An administrator from the Public Schools system selected seven participants for this study, and I also interviewed this administrator as the eighth participant. She is very close to the school food service side of Farm to School, and a good source of knowledge on other aspects of Farm to School programs within the School. Three other participants represented or owned businesses, two worked with nonprofit organizations, and the remaining two participants also worked with Sugarland Public Schools (SPS). Appendix B contains the interview script, with options in the script for the interviewer (me) to ask about more information.

Data Analysis

Interviews

After conducting interviews, I transcribed these sessions. Then, I used these transcriptions for coding purposes. I used NVivo software to code, and the software highlighted the codes within a dialog box. From those codes, I looked for recurring regularities in the data to

sort into patterns, known as the convergence of the data (Patton, 2002). Internal homogeneity and external homogeneity judged my coding and themed categories. In other words, I examined how data can be meaningful together, and then searched for differences evident in those meaningful categories (Creswell, 2009; Marshall & Rossman, 2006; Patton, 2002). Divergence also works to discover patterns, and this works by “building on items of information already known, ... making connections among different items...and proposing new information that ought to fit and then verifying its existence” (Carson, Gilmore, Perry, & Gronhaug, 2001, p. 176). When redundancy in the data was clear, themes emerged. From there I was able to make further conclusions and solidify my findings (Patton, 2002).

Validity and Reliability

To make sure a qualitative study is valid and reliable, it is important to understand that we do not necessarily look for validity and reliability the same way in qualitative research as is done in quantitative research. There are differing views about reliability and validity in qualitative studies. Validity and reliability in research focuses on credibility and independence of judgments, confirmability, dependability, consistency of data, and transferability of findings (Creswell, 2009; Golafshani, 2003; Lincoln & Guba, 1985; Patton, 2002; Stenbacka, 2001). Reliability could also be interpreted as the trustworthiness and authenticity of the data (Golafshani, 2003; Patton, 2002), making sure that there are multiple perspectives, interests, and realities to show where the data converge. Validity could be interpreted as credibility and triangulation. I wanted to make sure that the ways in which I collected data were varied and that each source informs and supports each other. By collecting evidence from multiple sources, the validity increases (Yin, 2009). If the researcher observes one thing, is told another, and has

documentation to support something else altogether, those data are not valid, and more research is needed.

Limitation of the Project

There are several limitations in this project. First, I only examined one school and school system that is convenient to me and is within the area in which I live. This could be a limitation because it is a unique case in an urban area, and the results of this study might not be applicable to other localities. At the same time, this limitation could be considered a strength of the study because it allowed me to focus in-depth on the partners in this program, speaking at length to them.

A second limitation could be that Farm to School programs are new; I am not sure about the extent to which this program is developed or how long partnerships have existed. This could be a limitation because participants might be unaware of each other or the contributions of one another. In other words, they do not know what makes Farm to School successful, they could not speak to anything beyond their own knowledge, and thus some actions or people who make Farm to School work might never been uncovered. Again, this could also be a strength of the partnerships, with each partner focusing in on their own “territory” and strengths.

Third, this study did not examine other potential influences on Farm to School program success. For example, the literature indicates that there are barriers to program success in distribution practices (Vo & Holcomb, 2011), budget constraints (Vo & Holcomb, 2011), and state and local policies (Nicholson, Turner, Schneider, Chriqui, & Chaloupka, 2014). This may be a limitation because the study does not examine the school’s budget or policies; instead, it focuses on the people who make Farm to School happen at the SPS system level. Some successes in Farm to School at SPS might be due to funds and resources provided at these levels

or a budgetary boost or a policy at the state or federal level. However these are beyond the scope of this study.

Finally, another limitation could be the lack of teacher participation in this study. Due to the timing of this study coinciding with end-of-year standardized testing, teachers were unable to participate. As discussed in the next chapter, teachers appear to be key partners in Farm to School programming and planning, especially when considering the curricular and garden aspects of Farm to School.

CHAPTER FOUR: RESULTS

In this study, I examined one school’s Farm to School program, using a qualitative case study design. The results from this study are presented in this chapter, centering the results around the two research questions on which this study focused. The first question, “Who are the partners in this Farm to School program?”, developed the answer through three themes: school based partners, community and nonprofit partners, and business partners. The second question, “How do they view their collaboration and experiences with each other as partners within this Farm to School program?”, was answered through three themes: respect, community building, and future perspectives. The figure below outlines those research questions and their answers.

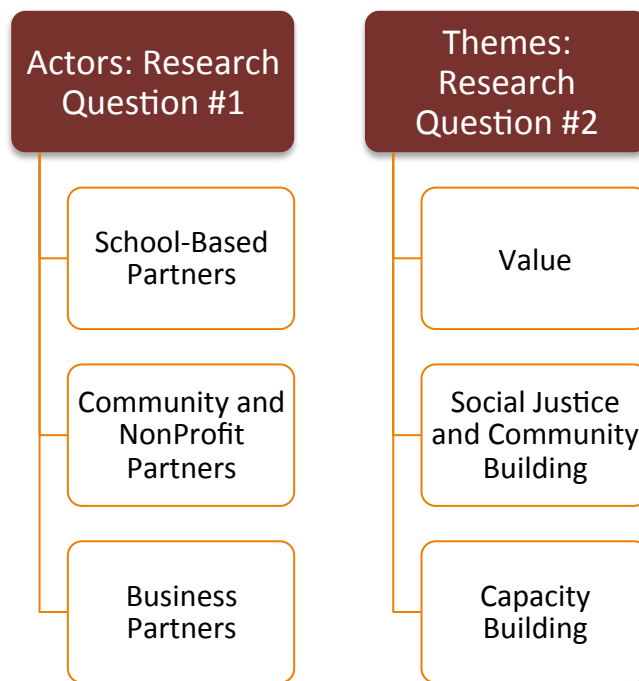


Figure 2. Overview of Results Organized by Research Question.

RESEARCH QUESTION #1
“Who are the partners in this Farm to School program?”

The first research question this study looked to answer was “Who are the partners in this Farm to School program?” Three major themes addressing this question emerged from the interviews conducted. School-based partners, community and nonprofit partners, and business partners were the partners discussed by participants in this study. School-based partners include employees of the SPS system, community and nonprofit partners are those who do not necessarily participate in Farm to School programs for business benefits, and business partners are for-profit organizations or entities. All three types of partners that emerged play specific roles that maintain the flow of SPS and Smith Elementary’s Farm to School program.

Actor 1: School-Based Partners

School-based partners include anyone who works for Sugarland Public Schools. Three participants in this study worked with Sugarland Public Schools, two were administrators and one worked in food service. One administrator did not consider herself as a partner in Farm to School programs, but many people who worked with her school considered her and her team of faculty vital to the school gardens. Throughout the interviewing process, these school-based partners were also participants were mentioned by other participants as well.

However, during the interviews, other school-based partners who were not part of the interview process emerged as part of the Farm to School program collaborative. Participants mentioned teachers several times. For example, Tracy said that “the science teachers will take classes out to gardens and teach them lessons.” Specifically, Smith Elementary’s “Green Team”, a team of teachers who worked with their school gardens, was considered important to the maintaining of the school gardens as part of the Farm to School program. The director of a

nonprofit organization worked with people at Smith Elementary to establish school gardens and integrate them into the curriculum. The Green Team... “was established... for 4th and 5th graders. [They] focused on agriculture education, environmental studies, nutrition, and conservation” (Matthew).

Participants also mentioned other schools and school systems with whom they work in Farm to School programs. Goochland, Chesterfield County, and Henrico County are other public school systems with whom nonprofits and businesses alike work. Working with multiple locations might inform participants’ understanding and knowledge of this location, and vice versa. For example, one participant praised the school gardens and cafeteria menu at a local private school located in the Sugarland area, The Steward School. Jackie said “they have the most beautiful gardens, so when it's growing we get lettuce, swiss chard, spinach. We literally pick it in the morning and serve it for lunch.” Other participants like Antonio and Chris discussed the additional schools with which they worked: “We also support and have partnered at a couple other schools around Sugarland in Sugarland City Public Schools on garden programming” (Antonio). Specifically, “I work with a teacher at Fisher Elementary” (Chris). In addition, Matthew works with school gardens at a SPS high school. In other words, this one school was not the only Farm to School program with which other partners work. This is not even the only school system with which the partners work. Therefore, a combination of efforts among multiple partners at multiple locations has furthered collaboration among participants. Moreover, school gardens at other schools in the school system have been developed and/or maintained by nonprofit and for-profit organizations involved with this study, which leads to the next theme.

Actor 2: Community and Nonprofit Partners

Community and nonprofit partners work with local policy and within the local community, sometimes specifically helping students, schools, and/or the community without financial benefit. Two participants were directors of nonprofits in Sugarland, and they both work specifically with schools in addition to other roles. One nonprofit organization focused on school and community gardens as well as hands-on experience with the gardens at the school site. In addition, this organization provides discounted produce to the communities and students as well. The second organization brings students to the farm, educating them on the growing experience.

Throughout the interviewing process, several other participants included community and nonprofit partners as integral partners. Pat, a nonprofit representative, “head[s] up the school gardens and green team volunteers and assists and also helps educate the kids where their food comes from and how it is grown.” Another nonprofit organization was mentioned by five of the eight participants as part of the Farm to School program. Additional nonprofit organizations emerged as Farm to School partners. Blue Sky Fund has developed an in-school “Explorer” program for 3rd and 5th graders that provides SOL instruction at a nonprofit farm in the area. Antonio said that the Blue Sky Fund has “four SOL stations there around soil. The 3rd grade SOLs are designed to be taught at a farm.” Matthew added to this, mentioning a 4H club and another program called Fit 4 Kids. Fit 4 Kids promotes gardens and healthy eating in schools. A local university and local cooperative extension offices also partnered with school gardens to provide materials and know-how, and established a 4H club at Smith Elementary. Matthew said that they “donated [manure], some wood and tools, and they came to our ribbon cutting of our hoop house opening.” Additionally, Jackie mentioned a local sports team that encourages

students to eat right through school visits and talks. “[We] bring in the Sugarland Raiders football team ... correlating that eating healthy could make you a big strong athlete.”

Policy, those who work with or within in, and those who make it also emerged as community partners. Initially, government grants enabled Farm to School programs in SPS to develop. Carol discussed this grant between the school system and the USDA as Sugarland Public Schools “were the recipients of the Farm to School grants the first year it was offered by the USDA... [it was] the planning grant.” The Virginia Department of Agriculture and Consumer Sciences (VDACS) has a Virginia Farm to School Conference each year, and they create and provide “promotional material. Virginia Grown. Buy Fresh Buy Local. All that has made an impact of families urban and rural” (Chris). Policies and programs are not the only governmental partners in this Farm to School Program. Through a federal program called Community Eligibility Provision, SPS students do not pay for breakfast or lunch through the school (Reid, 2014b). Charlie added to this, mentioning another government program in which the school participates. Smith Elementary is a favor school as “part of the Fresh Fruits and Vegetables (FFVP) federal program.” This is common at the state level as well, as the FFVP partners with the Virginia Department of Education.

Participants also identified government people and departments with whom they worked. For example, the Virginia Health Department and the Secretary of Agriculture were discussed as contributing to Farm to School. Antonio said that “a lot of our programs work with the health department.” Jackie built upon this, telling a story about face time with policy makers. “We did a Farm to School lunch at [Smith Elementary], and it was a big deal. The Secretary of Agriculture came.”

Actor 3: Business Partners

Business partners, though they may have similar altruistic motivations similar to community and nonprofit partners, had a focus on the financial bottom line. Three participants represented business partners in Farm to School. All three of the participants had multiple roles in their positions, such as procurement, distribution, food preparation, farmer's market stands, and education.

Other local businesses not interviewed here also have made an impact on Farm to School within the SPS system. Matthew said that “We are also working with the Chef of the Nile restaurant because they are creating these foods that are healthy and organic.” Jackie’s business teaches school food service workers and “children how to make great food. Some businesses have partnered or contracted with nonprofit organizations or other businesses, working with school gardens. Matthew lists these partners, who are both local businesses as well as large, national businesses, who have all had an impact on the development and/or sustaining of Farm to School at Smith Elementary.

“Capital One has sent volunteers and tool to Smith for last 3 years to help with the beds. We have been engaged with Backyard Farmers which is a full profit entity that helps us with landscaping. The Timmons Group is a landscape architectural firm and they have helped with basic designs for the school and as well as areas where we had farms in the community. Lowe’s has donated tools, seedlings, seeds, compost; and we also work with Mary Ann's Trucking to get compost mix and topsoil mix for our raised bed. Shalom Farms has been there from the beginning. They have also provided volunteers and interns to help run the farm stand as well as produce” (Matthew).

RESEARCH QUESTION #2
**“How do they view their collaboration and experiences
with each other as partners within this Farm to School program?”**

The second research question on which this study focused was “How do these partners view their collaboration and experiences with each other as partners within this Farm to School program?” Through data analysis of interview transcripts, three themes emerged. The partners valued their collaboration and experiences with each other, and they valued the benefits of the Farm to School program. They also had a social justice and a community-building perspective, understanding how their efforts bettered the community. Finally, a future perspective focusing on capacity building was the third theme, as they were looking to improve and sustain Farm to School and the students’ future.

Theme 1: Value

Participants in this study understood that it took multiple people to make Farm to School work. Jackie directly stated, “I can't do this by myself.” Antonio realized that it takes more than one person or organization for Farm to School success, saying that his team is “about as collaborative organization as there is.” Each person was able to discuss at least one other person with whom they worked, and several participants praised the work of others. They respected and valued each person’s role, and realized that it took a holistic, big-picture perspective for Farm to School success. For example, Antonio respected another nonprofit organization “There has been a great load of leadership from [Renew Sugarland].” Tracy also recognized the same nonprofit and its director. “There is a man [from Renew Sugarland], and he is like the head of it all so I would like to highlight him.” Continuing with this theme, Matthew said “Field of Dreams has been there too with his mobile market and he has done it as a low fee based and he has wonderful

vegetables.” Pat also stated that “[Renew Sugarland] ... is really good at teaching them about eating healthy.”

Charlie, who is one of the distributors, said that farmers also respected the Farm to School program. He said that he can count on local farmers to provide them with discounts if they know students will benefit.

“Right before school is starting I already know the schools are going to want peaches so I work with local farmers to get together enough fresh peaches for the kids when they start back each year. The farmers know it's for the kids so I get a “local” discount for the peaches each year. I guess it's the farmers wanting to give back.”

Farmers are not the only ones who valued Farm to School programs. Other participants praised the Farm to School program for creating awareness and for encouraging healthy eating for the students. Pat said that the students “don’t get the chance to eat fresh vegetables at home, for they usually get the cans because cans are cheaper at the store so when they come here and get fresh and healthy meals it really makes me feel good to see them so happy.” Students were the major focus of the benefits of the Farm to School program, but, as Carol stated below, Farm to School program partners were also learning from the program.

“The best thing that came out of it for me, and I think for others too, was finding what Farm to School is because it means different things to different people. Where I went into thinking on one track, Farm to School initially to me was we were going to be bringing more local foods into our meal plan for our students. But after being in it, a whole new world opened up to me because it wasn't just that it was really the educating of the students on the life cycle of food,

understanding where food is grown, understanding it from a nutritional point of view, and also understanding its impact on the earth. For some reason if I had a lot of extra time, the part that interests me the most after becoming more knowledgeable about it was the part about recycling the food back into compost, the life cycle of food. That aspect really interests me because I am concerned that we are living in a time when our students and our adults have no sensitivity to what they waste or throw away. If I could impact our students, staff, and the world I would want to see us do a better job of educating everyone about waste and looking also at what we are wasting less fortunate parts of the world could benefit due to all the world wide hunger. Also the waste with the produce we don't compost and throw away. Also seeing our students understand that food doesn't come from a can or a bag."

Even if participants like Tracy felt like they did not work directly work with Farm to School, they recognized its importance. "I... have not had any work with the Farm to School program here, but I know that it's good, and we are passionate about it." This program takes a lot of effort and collaboration to get to positive outcomes, and the participants respected that. "The key here is getting it all coordinated and together to get the fullest benefit out of it," stated Carol.

Overall, participants seemed to value the Farm to School program and their partners, but they also understood their own boundaries and respected where others could pick up the slack where they could not. Antonio explained this concept when he said "I'm committed to us as an organization knowing what we are good at and knowing what we are not good at, and knowing that we need to be willing to ask for others help... We don't want to be in a school garden every day; it's not our expertise but we love to assist and support."

Theme 2: Social Justice and Community-Building

Many participants reported that they enjoyed working with the students and community and seeing them happy. For example, Chris said, “What I do care about is seeing those kids happy, [and] the kids being educated.” Pat built upon this idea when she stated: “It really makes me feel good to see them so happy.” These students deserve a healthy lifestyle, and participants felt it was a just action to work to provide them with healthy and happy lives.

However, the participants’ comments did not stop with the students. Farm to School programs have an impact on the rest of the community as well, as many people, businesses, and organizations identified in this study also wanted to give back to the community. Chris elaborated on this thought: “I think Farm to School goes beyond the classroom, and it’s starting to touch the communities.” Most, if not all, participants respected or even personally believed in what Matthew called “community connectedness an empowerment.”

This community and social focus was evident in their work as well. For example, Carol said she wanted to develop a partnership with a nonprofit organization because of their mission and values. “We networked and connected with people in our community that wanted to be a part of anything that was gonna teach about sustainability.” These partners did not wait for people to reach out to them; these participants actively sought out members of the community. Matthew discussed how he engaged members of the community to participate in his organization’s programs. “I also engage community members and help focus initiatives and activities such as harvest festivals, obesity and nutrition classes, as well as cooking classes.”

Based on these interactions and engagements, programs have developed at and around the community. Antonio describes his desire to focus programs on what the community needs: “I spend ... some of my time in the communities ... making sure we are in touch with the people in

the neighborhoods we work with.” Particularly, Smith Elementary’s program helped build the community around the school gardens, as Carol said they “developed into them having a garden that they used in the community to bring awareness to the community as well as to bring money into the schools.” Then the community started heavily supporting the gardens and programming that businesses and non-profits and schools were offering. Carol continues: “Smith was very advanced that they had community partners as well as people inside the school to really support the activities and really focus on those areas.” The programming continues to evolve. Now Matthew says that Smith focuses on “events and after school activities concentrating on educating kids and parents and communities on the importance of eating healthy, eating local.”

Parents have become integral links between the school and the community, so Farm to School programming has reached them as well. Carol said that Smith Elementary has invited people to teach “students how to grow the food and then how to take the same food and cook it and have the parents come in for a dinner.” Chris elaborated on parental involvement, stating that the “PTA is getting involved now, and parents are growing gardens whereas they weren't before.” Classes have also been available for parents to attend at night.

Theme 3: Capacity Building

Most participants knew they had a continued future in Farm to School programming. However, they also had several suggestions for building the capacity of their programs, organizations, and efforts. Staffing was the first suggestion, as no one had a position solely dedicated to Farm to School activities. Everyone had other responsibilities and jobs. For example, farmers also sell at farmers markets, and educators might have full-time jobs in different areas. All participants had dual or even multiple roles. For example, Carol wanted to hire someone to coordinate Farm to School programs: “We really need someone to just take this

as a full time job to be able to take this together under the umbrella of Farm to School. A coordinator for Farm to School for all the schools.” The continued support of volunteers, interns, and donations is also needed for a successful Farm to School program in the future. According to Matthew, even national businesses send volunteers to schools gardens: “Capital One has sent volunteers and tools to [Smith Elementary] for last three years to help with the bed, ... and [Shalom Farms has] provided volunteers and interns to help run the farm stand as well as produce. Lowe’s has donated tools, seedlings, seeds, compost.”

At Smith Elementary, Farm to School programming seems to rely heavily on teachers, so their continued participation is vital to the program’s sustainability. At this location, Pat said that “mostly teachers and some volunteers that come in and help. The science teachers will take classes out to gardens and teach them lessons.” Some would like to see increased teacher involvement. For example, Matthew stated, “I would like for all SPS schools to create their own Green Team”). Smith Elementary’s “Green Team [is] comprised of teachers, and the plan was for [my organization] to assume less and less responsibility, and the Green Team to assume more.” However, low achievement as measured by Virginia’s Standards of Learning test scores may shift the focus away from Farm to School programs. Matthew thought that “Teachers are fearful for their jobs so class work is at the forefront of their attention.”

Antonio felt a need to work more with Smith Elementary and Sugarland Public Schools. “I am embarrassed to say that we’ve not been as involved on the ground in the last year or so.” Both he and Carol saw that there is still much work to be done; she stated:

“We still haven’t put a dent into it because we were just identifying what the needs were and such but we haven’t begun to impact what they need to understand about eating healthy and where it comes from. We still haven’t

impacted them enough to really understand the benefits to eating healthy so we know we have a long way to go but we have to start somewhere and it also gives us a lot of opportunity.”

Communication is the second area that participants wanted to increase for their capacity-building efforts. Regarding the Farm to School program, Chris felt there was room for improvement. “It seems like to me that everyone wants to live in silence, and I don’t want to live in silence... If everyone would step out of their silence and work together then the Farm to School program in Sugarland Public Schools would be much more advanced.” Perhaps, if communication were better among the partners, they could concentrate on what they do best instead of filling in gaps. Antonio built upon this concept when he said, “we should do what we do well and help others with the stuff we don’t do so well, and we also think others should have this same outlook.” Without this communication, it is possible that Farm to School might not thrive, especially if partners were to leave their positions. Matthew expressed this fear: “I feel like if I walk away and move onto other projects, then all my work will just be for nothing because no one will step up and take my lead role over... if I leave today, I do not know if it will continue.”

Summary of Findings

This chapter presented the results of the data analyses, answering both research questions. In the first research question, “Who are the partners in this Farm to School program?”, three major themes addressing this question emerged from the interviews conducted. These actors were *school-based partners*, *community and nonprofit partners*, and *business partners*. All three types of partners that emerged play specific roles that maintain the flow of Smith Elementary’s Farm to School program. In regards to the second research question on which this study focused,

“How do these partners view their collaboration and experiences with each other as partners within this Farm to School program?”, three additional themes emerged. The partners viewed their collaboration and experiences by *valuing* each other and the benefits of the Farm to School program, with a focus on *community-building and social justice* and knowledge of how their efforts bettered the community, and with a future perspective looking to *build capacity* in Farm to School and the students’ future. In the next and final chapter, I examine these results focusing on the theoretical framework and provide recommendations for Smith Elementary and other Farm to School programs.

CHAPTER FIVE: DISCUSSION & CONCLUSION

In the previous chapter, I presented the results by research questions. Three categories or themes described the partners to answer the first research question: school-based partners, community and nonprofit partners, and business partners. Three categories also described the perspectives of partnerships according to the participants: respect and value, social justice and community-building, and capacity building for future involvement. This fifth and final chapter addresses how those results inform the theoretical framework as described in Chapter Two, in addition to providing recommendations for Farm to School programs as well as research in general.

Revisiting the Theoretical Framework

Social Exchange

Social exchange (Blau, 1964; Emerson, 1976) is theory that social interactions and behaviors build upon give and take, and that each action seeks reciprocation. Social exchange in Farm to School partnerships could indicate that the partners depend upon and work with each other because they have or they will receive something in return (Harrison, 2013; Ingwers, 2014; Richardson, 2013). Among the business, community, and nonprofit partners there was reciprocation. Several businesses worked with each other, nonprofit organizations would outsource work to other nonprofits or even businesses, and the community supported or volunteered with both businesses and nonprofits. Moreover, with their work being “for the students”, the students were not giving back financially. Their health and happiness and education made the difference for most of the participants in this study.

It is possible that so many partners were able to consciously or subconsciously depend on each other to fill roles that were needed. As Matthew stated, “We need to be willing to ask for

others help.” School gardens, teaching kids how to cook or use those vegetables from that garden, feeding the students, and educating them on healthy eating were roles that different partners were able to fill, because they could depend on each other. Furthermore, they could recommend each other as well, respecting their expertise and leadership in their respective roles.

Embeddedness

Embeddedness originally was an economic concept (Polanyi, 1944), but it has recently emerged as a theoretical concept in studies on alternative agrifood networks like farmer’s markets and community supported agriculture (Hinrichs, 2000; Kirwan, 2004; Winter, 2003). Embeddedness posits that finances alone do not drive the economy; instead, the political, social, and religious contexts influence the market and consumer choices as well (Polanyi, 1944). With regards to embeddedness, it is evident that, for many, Farm to School program participation was not because of direct financial gain. Nonprofits organizations, school-based partners, and even businesses all described how good it made them feel to see kids educated or happy. They choose their work because they can see a difference, not because they are paid for it. In other words, those who participate in Farm to School programs enjoyed giving back to kids and to the community.

While some businesses might have been compensated (e.g. the distributor, the farmer, the education businesses), and while school-based partners are paid by the school system, there was a sense of embeddedness. Farmers sold peaches at a discount because they knew they were for the kids, according to one participant. They might have made more money selling those peaches at market value, but they did it “for the kids”. A nonprofit farm could make money with a focus on profit margins and returns on investment, but they choose to use their skills and talent and resources for the community.

At the same time, there could be room for improvement with social exchange and embeddedness. Perhaps with continued personnel support or additional staffing dedicated to Farm to School, partners would feel more valued by the school system. Perhaps with additional communication and collaboration, partners would better know current roles, and more teaming and partnerships could exist within or apart from Farm to School programs.

What Makes a Partnership Work?

Social exchange and embeddedness reinforce Farm to School program success. Since students are the focus of the Farm to School program, and they cannot give back monetarily to those involved in their health and education, each partner has to understand that their work impacts future generations. At the same time, each partner had their own agenda in Farm to School. Whether it was for work or for the community, their stake or focus was their own. Perhaps it is the combining of this “for the kids” perspective with their own agenda that makes the partnership in a Farm to School program work. While they might not agree with each person’s orientation towards their work, whether it is to make money or to serve the community, they had a role to fulfill. Others could count on the other person’s commitment and leadership in carrying out their role.

A few participants were frustrated with the lack of communication among the partners, but the knowledge of those partners is an important step in forming partnerships, and it is a step that must not be overlooked. Several school-based partners were unaware of the collaboration among businesses, nonprofits, community members, and school employees that already existed. However, others outside of the school were much more knowledgeable about their partners’ roles and responsibilities.

Recommendations for Farm to School Programs

Usually, when thinking about Farm to School programs, locally-sourced farm fresh food is at the forefront of our minds. However, that was focus of only two participants in this study. At Smith Elementary and the rest of the participants, the focus was on school and community gardening, education on health and nutrition, and agriculture education. While many start with local farms, it might be better to start Farm to School with this focus in mind. The first recommendation is, therefore, to see what local businesses, the community, and nonprofit organizations can do. What will involve the students and how can it be sustainable? The first recommendation for upcoming Farm to School programs, particularly ones in an urban environment with limited access to local farms, would be to teach students about creating and maintaining and eating from their own gardens will supplement their curriculum and perhaps provide insight into the school cafeteria.

For a large school system such as the one in which Smith Elementary is located, it can be difficult finding a farm that can deliver to 44 schools and almost 24,000 students, not to mention the faculty, staff, and administrators. Moreover, the school garden and community education involved for most of this study's participants is a huge undertaking. This is perhaps the reason why a dedicated Farm to School position has been requested and is the second recommendation of this study.

Third, all of the partners involved in this study could use more communication. However, with their many hats that they wear, they remain busy. A line of communication could be opened among them, but the logistics behind that are yet to be determined. It is possible that more communication might help fill in any gaps if someone were to leave due to finding a new job, establishing new projects, working under new administration, or the loss of resources. This was a

big concern especially to Matthew and Carol. What will happen if one partner (or even more) leaves for another career or venture? During the interviews, several participants mentioned that they would like to meet with each other, learn from each other, and provide recommendations to the SPS system about how they feel like they can improve or contribute to the program.

As a fourth recommendation, the Farm to School program at Smith Elementary and SPS should consider the resources available from the United States Department of Agriculture (USDA). An administrator from SPS has said that a next step could be to apply for a Farm to School implementation grant from the USDA. This could help alleviate budgetary constraints and provide a framework for future Farm to School efforts. Additionally, to enhance communication or education of Farm to School programs, SPS and its partners could refer to USDA resources online. This leads to the fifth recommendation of this study.

There may be a need to educate teachers and others what Farm to School is, what it means, and who is involved. Maybe some partners are aware of their own strengths and weaknesses, but others might not know who is doing what, where the gaps are and where the gaps are not, and how they can focus their own efforts. Many participants considered Farm to School as the cafeteria alone, and others considered it as the garden alone. However, Farm to School is a combination of all of the above.

Finally, it is important to realize the importance of administrative buy-in for Farm to School programs. Some administrators may see Farm to School as an extracurricular, fun program. However, Farm to School also has the tremendous potential of being incorporated into the core curriculum across multiple disciplines. Administrators might have more buy-in if Farm to School program coordinators explicitly state and seek to incorporate these program components within math, language arts, science, and social studies curricula. Developing

administrator knowledge and fostering relationships with these important stakeholders could be the key to more curricular integration and therefore administrative buy-in. However, more research is needed in this area to explore further connections between student achievement and Farm to School programming and its integration into the core curriculum.

Conclusion

Farm to School programs take a variety of actors to develop, implement, coordinate, and sustain. These actors may work with each other or alone, in silos or in teams, with the school system or apart from it. They may be a business, nonprofit organization, member of the community, or school employee. While many of these participants might not be satisfied with their roles or their partnerships or the way in which this Farm to School runs, much ground has been covered by them. They are at the forefront of Farm to School in the Commonwealth of Virginia, and they are doing great work in an urban school system. Perhaps other school systems in rural counties are able to achieve more in sourcing large amounts of food from local farms, but SPS has their own Farm to School niche. While there is still work to be done, their collaboration has bettered the students and the continued development of Farm to School in Smith Elementary will only benefit them more.

REFERENCES

- Bagdonis, J. M., Hinrichs, C. C., & Schafft, K. A. (2009). The emergence and framing of farm to school initiatives: civic engagement, health and local agriculture. *Agriculture and Human Values*, 26(1-2), 107-119.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544-559.
- Benson, M. C. (2013). *Exploring food system change through a mixed methods analysis of cooperative extension's role in the Farm to School movement* (Doctoral dissertation, Virginia Polytechnic Institute and State University).
- Benson, M. C. (2014). Exploring extension involvement in Farm to School program activities. *Journal of Extension*, 52(4), 4FEA4.
- Berlin, L., Norris, K., Kolodinsky, J., & Nelson, A. (2013). The role of social cognitive theory in Farm to school activities: Implications for child nutrition. *Journal of School Health*, 83(8), 589-595.
- Bilecki, J. (2012). Assessing healthy food access for low-income households shopping at a farmers market in rural Athens County, Ohio. (Electronic Thesis or Dissertation). Retrieved from <https://etd.ohiolink.edu/>.
- Blau, P. (1964). *Exchange and power in social life*. New York: Wiley.
- Brain, R. (2012). The local food movement: Definitions, benefits, and resources. *USU Extension Publication*, 1.
- Briggs, M. (2007). Nutrition education: An integral component of child nutrition programs. In J. Martin & C. Oakley (Eds.), *Managing child nutrition programs: Leadership for excellence*. Sudbury, MA: Jones & Bartlett Learning.
- Carman, T. (2013, October 22). First-ever census reveals growing popularity of farm to school programs. *The Washington Post*. Retrieved from http://www.washingtonpost.com/lifestyle/food/first-ever-census-reveals-growing-popularity-of-farm-to-school-programs/2013/10/22/9f8eafe2-3a75-11e3-a94f-b58017bfee6c_story.html.
- Carson, D., Gilmore, A, Perry, C, & Gronhaug, K. *Qualitative Marketing Research*. Thousand Oaks, CA: Sage.
- Centers for Disease Control and Prevention. (2012). *Obesity and overweight for professionals: Data and statistics: Adult obesity – DNPAO – CDC*. Retrieved from: <http://www.cdc.gov/obesity/data/adult.html>.

- Coleman-Jensen, A., Gregory, C., & Singh, A. (2014, September). Household food security in the United States in 2013. Economic Research Report No. (ERR-173).
- Collins, B. (2012). Can schools save kids' palates? Cooking from scratch in schools— The greatest food service challenge of our time. *Childhood Obesity*, 8(4), 323-326.
- Conner, D., King, B., Kolodinsky, J., Roche, E., Koliba, C., & Trubek, A. (2011). You can know your school and feed it too: Vermont farmers' motivations and distribution practices in direct sales to school food services. *Agriculture and Human Values*, 29, 321-332.
- Conner, D. S., King, B., Koliba, C., Kolodinsky, J., & Trubek, A. (2011). Mapping Farm to School networks: Implications for research and practice. *Journal of Hunger and Environmental Nutrition*, 6, 133-152.
- Conner, D., Sevoian, N., Heiss, S., & Berlin, L. (2014). The diverse values and motivations of Vermont Farm to Institution supply chain actors. *Journal of Agricultural and Environmental Ethics*, 27(5), 695-713. doi: 10.1007/s10806-013-9485-4.
- Connors, P. L., Bednar, C. M., Davenport, B. A., Kennon, L. R., & Davis, R. E. (2011). Identifying opportunities for nudging fruit and vegetable choices in middle school cafeterias. *Journal of the American Dietetic Association*, 111(9), A75.
- Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research*. Thousand Oaks, CA: Sage.
- Dewey, J. (1916). *Democracy and education*. Retrieved online from Project Gutenberg: <http://www.gutenberg.org/files/852/852-h/852-h.htm>.
- Dimitri, C., Oberholtzer, L., & Nischan, M. (2013). Reducing the geographic and financial barriers to food access: Perceived benefits of farmers' markets and monetary incentives. *Journal of Hunger and Environmental Nutrition*, 8(4), 429-444.
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 2, 335-362.
- Feenstra, G., & Ohmart, J. (2012). The evolution of the school food and Farm to School movement in the United States: Connecting childhood health, farms, and communities. *Childhood Obesity*, 8(4), 280-289.
- Gibbs, L. et al. (2013) Expanding children's food experiences: The impact of a school-based kitchen garden program. *Journal of Nutrition Education and Behavior* 45(2), 137-146.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-607. Retrieved online from: <http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf>.

- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91(3), 481-510.
- Hamm, M. W., & Bellows, A. C. (2003). Community food security and nutrition educators. *Journal of Nutrition Education and Behavior*, 35(1), 37-43.
- Harmon, A. (2004). *Farm to School: Case studies and resources for success*. [Los Angeles, CA]: Occidental College, Urban and Environmental Policy Institute, Center for Food and Justice, National Farm to School Program.
- Harrison, H. V. (2013). *From Farmer to Market: The Rhetorical Construction of Farmers in the Local Food Movement* (Doctoral dissertation, University of Louisville). Retrieved online from: <http://digital.library.louisville.edu/utills/getfile/collection/etd/id/2645/filename/5442.pdf>.
- Holben, D. H. (2010). Farmers' markets: fertile ground for optimizing health. *Journal of the American Dietetic Association*, 110(3), 364-365.
- Hinrichs, C. C. (2000). Embeddedness and local food systems: notes on two types of direct agricultural markets. *Journal of Rural Studies*, 16, 295-303.
- Ingwers, L. A. (2014). *Community garden impact study in Athens, Georgia*. (Masters Thesis, University of Georgia). Retrieved online from: https://getd.libs.uga.edu/pdfs/ingwers_laura_a_201405_mal.pdf.
- Izumi, B. T., Rostant, O. S., Moss, M. J., & Hamm, M. W. (2006). Results from the 2004 Michigan Farm to School survey. *Journal of School Health*, 76(5), 169-174.
- Izumi, B. T. (2008). *Farm to school programs in public K-12 schools in the United States: Perspectives of farmers, food service professionals, and food distributors* (Order No. 3331933). Retrieved online from: <http://search.proquest.com/docview/304594877?accountid=14780>.
- Izumi, B. T., Alaimo, K., & Hamm, M. W. (2008). O35: Farm to School programs and their potential for meeting school food service goals. *Journal of Nutrition Education and Behavior*, 40(4), S37.
- Izumi, B. T., Alaimo, K., & Hamm, M. W. (2010). Farm to School programs: Perspectives of school food service professionals. *Journal of Nutrition Education and Behavior* 42(2), 83-91.
- Izumi, B. T., Wright, D. W., & Hamm, M. W. (2010a). Farm to School programs: Exploring the role of regionally-based food distributors in alternative agrifood networks. *Agriculture and Human Values*, 27, 335-350.

- Izumi, B. T., Wright, D. W., & Hamm, M. W. (2010b). Market diversification and social benefits: Motivations of farmers participating in Farm to School programs. *Journal of Rural Studies*, 26, 374-382.
- Joshi, A., Azuma, A. M., & Feenstra, G. (2008). Do Farm to School programs make a difference? Findings and research needs. *Journal of Hunger and Environmental Nutrition*, 3(2-3), 229-246.
- Joshi A., & Azuma A. M. (2009). Bearing fruit: Farm to School program evaluation resources and recommendations. National Farm to School Network. Center for Food & Justice, Urban & Environmental Policy Institute, Occidental College. Retrieved online from: <http://departments.oxy.edu/uepi/cfj/bearingfruit.htm>.
- Kirwan, J. (2004). Alternative strategies in the UK Agro-Food System: Interrogating the alterity of farmers' markets. *Sociologia Ruralis*, 44(A), 395-415.
- Krueger, R. A. (2002). Designing and conducting focus group interviews. Retrieved online from the Eastern Illinois University website: <http://www.eiu.edu/~ihec/Krueger-FocusGroupInterviews.pdf>.
- Libman, K. (2007). Growing youth growing food: How vegetable gardening influences young peoples' food consciousness and eating habits. *Applied Environmental Education and Communication*, 6(1), 87-95.
- Markley, K., Kalb, M., & Gustafson, L. (2010). *Delivering more: Scaling up Farm to School programs*. Retrieved from Community Food Security Coalition website: http://foodsecurity.org/pub/Delivering_More-Scaling_up_Farm_to_School.pdf.
- Martinez, S. W. (2010). Varied interests drive growing popularity of local foods. *Amber Waves*, 8(4), 10-17.
- Morgan, K., & Sonnino, R. (2010). *The school food revolution: Public food and the challenge of sustainable development*. New York: Earthscan.
- National Collaborative on Childhood Obesity Research (NCCOR), (2012). U.S. childhood obesity trends. Retrieved online from: http://nccor.org/downloads/NCCOR_Obesity-Graphic_Trends_v9.pdf.
- Nicholson, L., Turner, L., Schneider, L., Chriqui, J., & Chaloupka, F. (2014). State Farm-to-School laws influence the availability of fruits and vegetables in school lunches at US public elementary schools. *Journal of School Health*, 5, 310-316. doi: 10.1111/josh.12151
- Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Thousand Oaks, CA: Sage.

- Pesch, R. (2010). *How much impact can farm to school programs have on a regional economy?* Informally published manuscript, Minnesota Institute for Sustainable Agriculture, University of Minnesota, St. Paul, MN. Retrieved online from http://www.misa.umn.edu/prod/groups/cfans/@pub/@cfans/@misa/documents/asset/cfans_asset_291179.pdf.
- Pinard, C. A., Reid, T. M., Carpenter, L. R., Chapman, M., Balluff, M., Yaroeh, A. L. (2013). Stakeholders' interest in and challenges to implementing Farm to School programs, Douglas County, Nebraska, 2010-2011. *Preventing Chronic Disease*, 10, 130-182.
- Polanyi, K. (1944). *The great transformation: The political and economic origins of our time*. Beacon Press.
- Ratcliffe, M. M., Merrigan, K., Rogers, B. L., & Goldberg, J. P. (2011). The effects of school garden experiences on middle school-aged students' knowledge, attitudes, and behaviors associated with vegetable consumption. *Health Promotion Practice*, 12, 36-43.
- Ratcliffe, M. M. (2012). A sample theory-based logic model to improve program development, implementation, and sustainability of farm to school programs. *Childhood Obesity* 8(4), 315-322.
- Reid, Z. (7 October 2014). Sugarland School Board approves interim principal for G.H. Smith Elementary. *Sugarland Times-Dispatch*. Retrieved online from the Sugarland Times-Dispatch website: http://www.Sugarland.com/news/local/city-of-Sugarland/article_35ed10e9-961e-5cc4-bc7e-c75a16ef3c97.html?mode=print.
- Reid, Z. (22 July 2014) (cited as 2014b). "Free lunch, breakfast in city schools." Retrieved online from The Sugarland Times-Dispatch website: http://www.Sugarland.com/news/local/education/article_d60d6874-d7f4-5bd2-8c6a-e394b3bb98b9.html.
- Renew Sugarland (2014). G.H. Smith Elementary School. Retrieved online from the Renew Sugarland website: <http://renewSugarland.org/g-h-Smith-elementary-school/>.
- Sugarland Food Policy Task Force. 2013. Report and recommendations to improve food access in the City. Retrieved online from: www.Sugarlandgov.com/ProjectFoodPolicyTaskForce/documents/FPTF_ReportJuly2013.pdf.
- Richardson, T. A. (2010). At the garden gate: Community building through food: Revisiting the critique of "Food, Folk and Fun" in multicultural education. *The Urban Review*, 43(1), 107-123.

- Roche, E.. (2014, June). How can you recognize success? Individual responses to food system policy aimed at children. A paper presented at the University of Vermont's food systems summit. Burlington, VT. Abstract retrieved online from: http://www.uvm.edu/foodsystms/summit/Powers_et_al.-HowCanYouRecognizeSuccess.pdf.
- Rooney, L., & Ayres, D. (2012). Healthier students are better learners. PowerPoint slides from the keynote speech, School health interdisciplinary program conference, July-August 2012, Towson, MD. <http://csmh.umaryland.edu/Conferences/ship/SHIPArchives/HealthandAcademics.pdf>.
- Sevoian, N., & Connor, D. (2012). Providing the local story of produce to consumers at institutions in Vermont: Implications for supply chain members. *Journal of Food Distribution Research*, 43(1).
- Srinivasan, J. (2011). Meta-leadership in a Farm to School program: Improving childhood nutrition in Kentucky. *Journal of Public Health*, 20, 343-346.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stenbacka, C. (2001). Qualitative research requires quality concepts of its own. *Management Decision*, 39(7), 551-555.
- Thornburg, G. K. (2013). Embeddedness, marketness, and economic instrumentalism in the Oklahoma Farm to School program. *Journal of Rural and Community Development*, 8(3), 321-334.
- USDA National commission on small farms. (1998). *A time to act: A report of the USDA National Commission on Small Farms*. (Miscellaneous publication (United States. Dept. of Agriculture) no.1545). Washington, D.C: The national commission on small farms.
- United States Department of Agriculture (USDA), (2013). Farm to School. Retrieved online from: [http://www.fns.usda.gov/sites/default/files/farm to school_at_USDA.pdf](http://www.fns.usda.gov/sites/default/files/farm%20to%20school_at_USDA.pdf).
- Vallianatos, M., Gottlieb, R., & Haase, M. A. (2004). Farm-to- school: Strategies for urban health, combating sprawl, and establishing a community food systems approach. *Journal of Planning and Education Research*, 23(4), 414-423. doi: 10.1177/0739456X04264765.
- VDACS (2014). Virginia Farm to School program ~ Schools. Retrieved online from Virginia Department of Agriculture and Consumer Sciences website: <http://www.vdacs.virginia.gov/marketing/farm-schools.shtml>.
- Vo, A., & Holcomb, R. B. (2011). Impacts of school district characteristics on Farm to School program participation: The case for Oklahoma. *Journal of Food Distribution Research*, 42(3), 43-59.

- Winter, M. (2003). Embeddedness, the new food economy and defensive localism. *Journal of Rural Studies*, 19, 23-32.
- Yoder, A., & Schoeller, D. (2014). Fruits and vegetables displace, but do not decrease, total energy in school lunches. *Childhood Obesity*, 10(4), 357-364. doi: 10.1089/chi.2014.0017.
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.
- Yin, R. K. (2012). *Applications of case study research* (3rd ed.). Thousand Oaks, CA: Sage.
- Yin, R. K. (2013). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.
- Yoder, A., & Schoeller, D. (2014). Fruits and vegetables displace, but do not decrease, total energy in school lunches. *Child Obesity*, 10(4), 357-364. doi: 10.1089/chi.2014.0017.

APPENDIX A
Permission From Author for Use of Figure on Page 21



Donald Barber <donnieb@vt.edu>

Map of Farm to School Actors Figure

3 messages

Donnie Barber <donnieb@vt.edu> Tue, Aug 11, 2015 at 1:03 PM
To: "david.conner@uvm.edu" <david.conner@uvm.edu>, "97dconne@uvm.edu" <97dconne@uvm.edu>

Hi Dr. Conner,

My name is Donnie Barber, and I am a Master's Degree Candidate at Virginia Tech in Agriculture and Life Sciences. My culminating paper is about the partnerships in farm to school programs in the Richmond area, and how they work together towards their success.

I read your article "Mapping Farm to School Networks Implications for Research and Practice" in the *Journal of Hunger and Environmental Nutrition*, and I saw a figure (on page 142) that maps partnerships in Farm to School. Would it be acceptable to you if I were to include this diagram in my final paper?

My advisor said I need to get your permission, and it is very helpful to see this diagram to understand the complexities of the farm to school partners and actors. I will credit you, of course, and I can do anything else you would require.

If you need more information, please let me know.

Thank you for your consideration.

Donnie Barber

David Conner <97dconne@uvm.edu> Tue, Aug 11, 2015 at 1:57 PM
To: Donnie Barber <donnieb@vt.edu>

Donnie, feel free to use it, just give us the standard citation. Glad you find it useful

Take care

-David

[Quoted text hidden]

--

David Conner
Associate Professor
Department of Community Development and Applied Economics
University of Vermont

APPENDIX B Institutional Review Board Consent Form

RESEARCH SUBJECT INFORMATION AND CONSENT FORM

STUDY TITLE: *Examining Partnerships in Farm-to-School Programs*

NAME OF RESEARCHER: *Donald S. Barber*

STUDY SPONSOR: *Virginia Tech University, College of Agriculture and Life Sciences*

PURPOSE OF THE STUDY: *The purpose of this research study is to understand the relationships and collaboration among partners in a functioning farm-to-school program.*

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT: *If you decide to be in this research study, you will be asked to answer questions about working in a farm-to-school program in an interview setting.*

SHARING INFORMATION: *If you agree to participate, the researchers will collect the following information: 1) Answers from interview question; 2) Job Information / Job Title 3) Demographic information (gender, age range).*

RISKS AND DISCOMFORTS: *Face to face interviews might be a little uncomfortable, but we will work to make sure that your answers will never be directly linked to your real name. Privacy will be guarded during all interview processes.*

Interviews will be recorded, but never shared with anyone outside of the research professionals associated with this study. Interview transcripts will never be shared with supervisors or any Richmond Public School employee or anyone who is not part of the research efforts associated with this study. Identifiable information will never be connected to interview transcripts, recordings of interviews will never be shared with any participants (only researchers and transcriptionists), and confidentiality will remain a primary goal throughout this research study.

BENEFITS TO YOU AND OTHERS: *Help you and others in your work in the farm-to-school program by understanding how better to work together and what could help you in the future.*

COSTS: *None, just time.*

PAYMENT FOR PARTICIPATION: *None*

ALTERNATIVES: *Paper instruments can be created if you prefer non face-to-face settings; Spanish language instruments can be created for non-native English speakers.*

CONFIDENTIALITY: *Potentially identifiable information about you may include your name and other observable characteristics, but your real name will never be recorded in your interview transcript or tied into your responses or comments during the interview period. The interviewer and researchers may use a pseudonym or a false name to identify all participants to maintain confidentiality. Other collected information (such as your job title and description) is being collected only for research purposes and will never be shared with anyone except the researchers. We will not link your answers directly to you in anyway, neither to your supervisors nor to those who will read the final report. However, information from the study and this signed consent form may be looked at or copied for research or legal purposes. What we find from this study may be presented at meetings or published in papers, but your real name will not ever be used in these presentations or papers.*

VOLUNTARY PARTICIPATION AND WITHDRAWAL: *You do not have to participate in this study. If you choose to participate, you may stop at any time without any penalty. You may also choose not to answer particular questions that are asked in the study without any problem or penalty.*

QUESTIONS: *In the future, you may have questions about your participation in this study. If you have any questions, complaints, or concerns about the research, you may contact the primary researcher, Donnie Barber (donnieb@vt.edu)*

CONSENT/PERMISSION: *I have been given the chance to read this consent form. I understand the information about this study. Questions that I wanted to ask about the study have been answered. My signature says that I am willing to participate in this study. I will receive a copy of the consent form once I have agreed to participate.*

| | | |
|--|---|------|
| Name of Adult Participant (Printed) | Participant Signature | Date |
| Name of Person Conducting Informed Consent (Printed) | Signature of Person Conducting Informed Consent | Date |

If you have any questions about this study or those involved with the research, please contact Donnie Barber: donnieb@vt.edu or call 804.731.1051

If you have any questions about your rights as human subject research participants, Virginia Tech's IRB contact is Dr. Moore: moored@vt.edu or call 540.231.4991
Virginia Tech Institutional Review Board Project No. 14-1236
Approved January 23, 2015 to January 22, 2016

APPENDIX C
Approval Letter from Virginia Tech Institutional Review Board



Office of Research Compliance
Institutional Review Board
North End Center, Suite 4120, Virginia Tech
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-4606 Fax 540/231-0959
email irb@vt.edu
website <http://www.irb.vt.edu>

MEMORANDUM

DATE: February 25, 2015
TO: Kim Niewolny, Donald Steven Barber, James C Anderson II, Elena L Serrano
FROM: Virginia Tech Institutional Review Board (FWA00000572, expires April 25, 2018)
PROTOCOL TITLE: Examining Partnerships in Farm to School Programs
IRB NUMBER: 14-1236

Effective February 24, 2015, the Virginia Tech Institutional Review Board (IRB) Chair, David M Moore, approved the Amendment request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<http://www.irb.vt.edu/pages/responsibilities.htm>

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

Approved As: **Expedited, under 45 CFR 46.110 category(ies) 5,6,7**
Protocol Approval Date: **January 23, 2015**
Protocol Expiration Date: **January 22, 2016**
Continuing Review Due Date*: **January 8, 2016**

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

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APPENDIX D
Script and Instrument: One-on-One Interviews

**** Introduction Script for One-On-One Interviews**

“Hi, my name is Donnie Barber, and I am very grateful for your agreement to participate in our study. I am a researcher with Virginia Tech, conducting a study for my final Master’s Degree project in Agriculture and Life Sciences.

Q1: “Before we begin, I want to ask if you have already read and signed the participation form?”

SCRIPT: “Thank you _____ (desired name). I know the participation form already stated this, but I want to tell you myself that your information and responses will be kept confidential. Also, I am going to record our conversation; this is so I don’t have to write everything down that you say. The recording will not have your name, though; I am going to identify you on the recording as Participant ____.” (A, 1, B, 2, etc).

Q2: “Do you still approve?:: Pause

If yes, continued. If no, “Thank you for your time. I appreciate you meeting with me.”

Q3: Do you have any other questions before we begin? :: Pause for response::

**** Instrumentation: Interview Questions**

- 1) Can you describe your role and responsibilities?
- 2) Who else at your school works with the Farm to School program? What do they do and how do you work with them?
- 3) Do you know other **people in your community** who work with the Farm To School Program? (: For each person ask the following questions::)

- a) Tell me more about their role in the program
- b) Tell me more about your relationship with _____
- c) More Prompts:
 - i) How do often do you work with that person? (daily, weekly)
 - ii) Describe your working relationship with that person